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Selector Guide

2020

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SWITCHING REGULATORS | DC/DC POWER CONVERSION

CPU Core (Controllers)

Maximum Operating Input Voltage < 55V

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	I_Q (Typ) (mA)	Shutdown Current (Typ) (mA)	f_{SW} (MHz)	Soft Start	Regulated Output Phase	Package	Notes
MP2939	3.2	3.4	8	0.05	0.3 to 3	Int	4	QFN-48 (6x6)	1+2+1 phase, IMVP8
MP2949A	3.15	3.4	13	0.07	0.01 to 2	Int	6	TQFN-48 (6x6)	3+2+1 phase for VCCGT, VCORE, and VCCSA, IMVP8/9

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	I_Q (Typ) (mA)	Shutdown Current (Typ) (mA)	f_{SW} (MHz)	# of Output Rails	Regulated Output Phase	Package	Notes
MP2965	3	3.6	30	0.15	0.2 to 3	2	10	QFN-48 (6x6)	VR13.HC/AVSBus
MP2888A	3	3.6	30	0.15	0.2 to 5	1	10	QFN-40 (5x5)	NVIDIA OpenVReg
MP2884A	3	3.6	30	0.15	0.2 to 5	1	4	QFN-40 (5x5)	NVIDIA OpenVReg
MP2886A	3	3.6	30	0.15	0.2 to 5	1	6	QFN-40 (5x5)	NVIDIA OpenVReg
MP2853	3	3.6	34	0.11	0.2 to 3	2	5	QFN-40 (5x5)	AMD SVI2

CPU Core Power (Intelli-Phase™)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_{SW} Limit (Typ) (A)	Shutdown Current (Typ) (mA)	f_{SW} (MHz)	PWM Logic (V)	Package
MP86901A	4.5	26	12	25	0.03	0.1 to 2	3.5	TQFN-13 (3x3)
MP86901B	4.5	26	20	35	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
MP86901C	4.5	26	25	60	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
MP86903C	4.5	22	30	60	0.03	0.1 to 1.2	3.5	TQFN-21 (3x4)
MP86902B	3.3	12	35	75	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
MP86905	4.5	16	50	75	0.08	0.1 to 2	3.3	QFN-23 (4x4)
MP86945A	4.5	16	60	90	0.01	0.1 to 2	3.3	TQFN-25 (4x5)
MP86934	4.5	16	25	60	0.03	0.1 to 2	3.3	TQFN-21 (3x4)
MP86933	4.5	16	12	25	-	0.1 to 2	3.3	TQFN-13 (3x3)
(N) **MP86957**	3	16	70	110	0.09	0.1 to 3	3.3	LGA-41 (5x6)

(N) - New Product (S) - Sampling Product

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
MP28200	2	5.5	0.2	0.5	-	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	Ultra-low I_Q
N **MP28310**	2	5.5	0.3	0.5	-	1.5	✓	✓	✓	✓	-	CSP-12 (1.2x1.6)	100mA LDO with 300nA I_Q, prog. V_{OUT} by CTRL, P2P with the MP28210, equivalent to the TPS62743
MP21600	2.3	5.5	0.6	11	0.6	2.4	-	✓	✓	✓	-	QFN-6 (1x1.5)	High switching frequency, ultra-small package
MP28300	2	5.5	0.3	0.5	-	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	Ultra-low I_Q
MP28301	2	5.5	0.7	0.5	0.6	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	100mA LDO with 300nA I_Q, prog. V_{OUT} by CTRL, P2P with the MP28300
N **MP28210**	2	5.5	1	0.5	-	1.5	✓	✓	✓	✓	-	CSP-12 (1.2x1.6)	P2P with the MP28310
MP2141N	2.3	5.5	1	11	0.6	2.2	✓	✓	✓	✓	-	SOT563 (1.6x1.6)	Output discharge, power good only for fixed V_{OUT} version

Step-Down Converters (Buck) — Maximum Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
MP2148	2.3	5.5	1	10	0.6	2.2	✓	✓	✓	✓	-	QFN-6 (1x1.5)	High switching frequency, ultra-small package
MP21148	2.3	5.5	1	500	0.6	2.4	✓	-	✓	✓	-	QFN-6 (1x1.5)	FCCM, low ripple across entire load range
MP2149	2.7	6	1 (2x)	45	0.608	1	-	✓	-	✓	-	TSOT23-8	Dual 1A output current
MP2151	2.5	5.5	1	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V_{FB} accuracy, output discharge, adj. and fixed V_{OUT} versions, P2P with the MP2152/3
MP2181	2.5	5.5	1	21	0.6	1.2	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	External soft start, 1% V_{FB} accuracy, output discharge, P2P with the MP2182/3/4
MP2141Q-18	2.3	5.5	1.5	20	-	2.2	-	✓	✓	✓	-	SOT563 (1.6x1.6)	Fixed 0.61V/1.8V output voltage, output discharge, VSEL for PFM/PWM
MP2152	2.5	5.5	2	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V_{FB} accuracy, output discharge, adj. and fixed V_{OUT} versions, P2P with the MP2151/3
MP2172C	2.38	5.5	2	450	0.6	1.1	-	-	✓	✓	-	UTQFN (1.2x1.6)	FCCM, 1% V_{FB} accuracy, output discharge
S **MP2192C**	2.5	5.5	2	25	0.6	1.1	-	-	✓	✓	-	WLCSP-6 (1.23x0.86)	FCCM, 1% V_{FB} accuracy, fast output discharge, P2P with the MP2193

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
	MP2182	2.5	5.5	2	21	0.6	1.2	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	External soft start, 1% V_{FB} accuracy, output discharge, P2P with the MP2182/3/4
N	**MP2122A**	2.7	6	2 (2x)	45	0.608	1	-	✓	-	✓	-	TSOT23-8	Dual 2A output current
	MP2166 MPQ2166	2.7	6	2 (2x)	60	0.6	3	✓	✓	-	✓	✓	QFN-18 (2x3), QFN-18 (2.5x3.5)	Dual-channel, external soft start
	MP2153	2.5	5.5	3	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V_{FB} accuracy, output discharge, adj. and fixed V_{OUT} versions, P2P with the MP2151/2
S	**MP2193**	2.5	5.5	3	25	0.6	1.1	-	✓	✓	✓	-	WLCSP-6 (1.23x0.86)	1% V_{FB} accuracy, output discharge, adj. output, P2P with the MP2192C
	MP2164	2.5	5.5	3	50	0.6	2.3	✓	✓	✓	✓	-	QFN-12 (2x2)	Forced PWM and auto-PFM mode

Step-Down Converters (Buck) — Maximum Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
	MP2183	2.5	5.5	3	21	0.6	1.2	✓	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge, P2P with the MP2181/3/4
	MP2188	2.5	5.5	3 (2x)	80	0.6	1.2	✓	-	✓	✓	✓	-	QFN-16 (2.2x2.6)	Dual-output, output discharge
	MP2131	2.7	5.5	4	19	0.6	1.2	✓	-	✓	✓	✓	-	QFN-12 (2x2)	Output discharge
N	**MP2184**	2.5	5.5	4	21	0.6	1.2	✓	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge, P2P with the MP2181/2/3
	MP2145	2.8	5.5	6	40	0.6	1.2	✓	-	✓	✓	-	-	QFN-12 (2x3)	Output discharge, PWM/PFM mode, dynamic voltage scaling
	MP8847	2.7	6	6	300	0.6	0.85 to 2.2	✓	-	✓	-	-	-	QFN-14 (2x3)	I²C interface, prog. V_{OUT}, power-save mode
	MP8770C	3	17	8	0.1	0.6	0.7	✓	✓	-	✓	-	-	QFN-16 (3x3)	FCCM, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
	MP8771	3	18	10	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
	MP8774	3	18	12	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
	MP8774H	3	18	12	0.1	0.6	1.4	✓	✓	✓	✓	-	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs

N - New Product S - Sampling Product

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
MP1479	4.2	18	1	0.19	0.805	0.8	-	-	✓	✓	SOT563 (1.6x1.6)	Low UVLO, P2P with the MP1476/ MP1477
MP2313	4.5	24	1	0.2	0.8	2	-	-	✓	-	TSOT23-8	High frequency, light-load mode (AAM pin), P2P with the MP2138
MP2388	4.5	21	1	0.2	0.798	2	-	-	✓	-	QFN-8 (1.5x2.5)	Small package, ultra-thin profile option
MP2317	7.5	26	1	0.15	0.791	0.6	-	-	✓	-	TSOT23-6	Low current limit version of the MP2314, optimized EMI
MP2322	3	22	1	0.005	0.6	1.25	✓	-	✓	✓	QFN-8 (1.5x2)	Ultra-low I_Q, small package, output discharge
MP1476	4.2	18	2	0.19	0.805	0.8	-	-	✓	✓	SOT563 (1.6x1.6)	P2P with the MP1479/MP1477
MP2318	4.5	24	2	0.2	0.798	2	-	-	✓	-	TSOT23-8	High frequency, light-load mode (AAM pin), P2P with the MP2313
MPQ2314	4.5	24	2	0.18	0.791	0.5	-	-	✓	✓	TSOT23-8	AAM power-save mode, industrial grade
MP2332H	4.2	18	2	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2333H
MP2321	4	19	2	0.04	0.6	Prog	✓	✓	✓	-	QFN-14 (2x3)	Forced PWM or auto-PFM/PWM mode, 100% duty cycle
MP2392	4.2	24	2	0.2	0.805	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2393
MP2331H	4.2	24	2	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2330H
MP2344	7.5	26	2	0.17	0.791	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2345, optimized EMI
MP2345	7.5	26	2.5	0.17	0.791	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2344, optimized EMI
MP2393	4.2	24	3	0.2	0.805	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2392
MP2333H	4.2	18	3	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2332H
MP2330H	4.2	24	3	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2331H
N **MP2386C**	4.5	24	8	0.105	0.6	0.7	✓	-	-	-	QFN-11 (2x2)	FCCM
MP1477	4.2	17	3	0.2	0.805	0.8	-	-	✓	✓	SOT-563 (1.6x1.6)	P2P with the MP1479/MP1476
MP1477H	4.2	17	3	0.2	0.805	1.2	-	-	-	✓	SOT563 (1.6x1.6)	High frequency, FCCM
N **MP1660**	4.5	16	3	0.19	0.6	0.6	-	-	✓	✓	SOT-563 (1.6x1.6)	600mV V_{REF}
MP2223	4.5	18	3/2	1	0.8	0.54	-	-	✓	-	TSOT23-8	Dual 3A/2A buck, 180° out-of-phase operation
MP2348	4.2	24	4	0.2	0.802	0.65	-	✓	✓	✓	SOT583 (1.6x2.1)	Forced PWM, auto-PFM mode, ultrasonic mode
MP8854	2.85	18	4	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	I^2C prog. FB range, int. telemetry, accurate V_{OUT}/I_{OUT} readback via I^2C, P2P with the MP8861/69S
S **MP8853**	2.85	18	4	0.42	0.6 to 1.108 (Adj in 4mV Steps)	0.5 to 1.25	✓	-	✓	✓	QFN-14 (3x3)	I^2C prog. FB range and f_{SW}, accurate V_{OUT}/I_{OUT} readback via I^2C

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
MP8864	4.5	21	4	0.5	0.6 to 1.87 (Adj in 10mV Steps)	0.6 to 1.6 (Selectable)	✓	✓	✓	-	QFN-15 (3x3)	I^2C interface, prog. V_{OUT}, power-save mode
S **MP2349**	4.5	24	6.5	0.105	0.6	0.7	-	-	✓	✓	QFN-11 (2x2)	Forced PWM, auto-PFM mode, ultrasonic mode
S **MPQ8861**	2.85	18	12	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	Wettable flank package, output adj. in 4mV steps, I^2C
MPQ8623	4	16	6	0.65	0.9	0.6/1.1/2	✓	✓	✓	✓	QFN-14 (2x3)	Prog. curremt limit, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8626	4	16	6	0.65	0.6	0.6/1.1/2	✓	✓	✓	✓	QFN-14 (2x3)	Prog. curremt limit, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8633A	4	16	16	0.65	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8633B	4	16	20	0.65	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8634A	4	16	12	0.65	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8634B	4	16	20	0.65	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excel. load reg.
MPQ8645P	4	16	30	2.5	0.6	0.4/0.6/0.8/1	✓	-	✓	✓	TQFN-25 (4x5)	Scalable multi-phase operation, PMBus, true remote V_{OUT} sense, prog. V_{OUT}, current Limit, and freq.

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
N **MP2328**	4.5	28	2	0.16	0.5	0.45	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with the MP233x family
S **MP2328C**	4.5	28	2	0.56	0.5	0.45	✓	✓	-	✓	-	SOT583 (1.6x2.1)	FCCM
N **MP2338**	4.5	28	3	0.16	0.45	0.45	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with MP2328
MP2316	4	19	3	0.04	0.6	Prog	✓	✓	✓	✓	-	QFN-14 (2x3)	High efficiency, 100% duty cycle
MP2326	3.9	19	4	0.04	0.6	Prog	✓	✓	✓	✓	-	QFN-14 (2x3)	Selectable PFM/PWM mode, 100% duty cycle

N - New Product S - Sampling Product

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP8715	4.5	21	4	0.66	0.805	0.5	✓	✓	-	-	-	QFN-14 (3x4), SOIC-8E	100% duty cycle, ext. freq. sync
MP1499	4.5	16	5	0.6	0.807	0.5	-	✓	✓	-	-	QFN-10 (2x3)	Ext. freq. sync range 200kHz to 2MHz, current mode
MP2384	4.5	24	4	0.105	0.6	0.7	✓	-	✓	✓	-	QFN-11 (2x2)	Output discharge, thermal shutdown with auto-retry, P2P with the MP2329/ MP2386
MP2384C	4.5	24	4	0.105	0.6	0.7	✓	-	-	✓	-	QFN-11 (2x2)	FCCM
MPQ8636-4	4.5	18	4	0.86	0.611	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	CCM, non-latch OVP, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap.
MP2225	4.5	18	5	0.32	0.6	0.5	-	-	✓	-	-	TSOT23-8	External freq. sync, P2P with the MP2236
MPQ8623	4	16	6	0.65	0.9	0.6/1.1/2.2	✓	✓	✓	✓	✓	QFN-14 (2x3)	Prog. current limit, prop. switching loss red., pre-biased start-up start-up, stable w/ zero ESR out cap, excel. load reg.
MP8861	2.85	18	6	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	-	QFN-14 (3x4)	I^2C prog. FB range, integrated telemetry, accurate V_{OUT}/I_{OUT} readback via I^2C, P2P with the MP8854/69S
MP2236	3	18	6	0.15	0.6	0.6	-	-	✓	✓	-	TSOT23-8	P2P with the MP2225
S **MP2236C**	3	18	6	0.15	0.6	0.6	-	-	-	✓	-	TSOT23-8	FCCM
MP2229	4.5	21	6	0.4	0.6	Prog	-	✓	✓	-	-	QFN-14 (3x3)	Current mode, external frequency sync
MP8865	4.5	21	6	0.5	0.6 to 1.87 (Adj in 10mV Steps)	0.6 to 1.6 (Selectable)	✓	✓	✓	-	-	QFN-15 (3x3)	I^2C interface, prog. V_{OUT}, power-save mode
MP2329	4.5	24	6.5	0.105	0.6	0.7	✓	-	✓	✓	-	QFN-11 (2x2)	Output discharge, thermal shutdown with auto-retry, P2P with the MP2384/ MP2386
MP2329C	4.5	24	6.5	0.105	0.6	0.7	✓	-	-	✓	-	QFN-11 (2x2)	FCCM version of the MP2329
MP2386	4.5	24	8	0.105	0.6	0.7	✓	-	✓	✓	-	QFN-11 (2x2)	Output discharge, OCP, OVP, UVP, thermal shutdown with auto-retry, P2P with the MP2384/MP2329
MP2276	2.7	16	8	0.6	0.8	0.6/1.1/2	✓	✓	✓	✓	-	QFN-14 (2x3)	Prog. current limit, forced PWM/ auto-PFM mode
MP8770	3	17	8	0.1	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MP8770C	3	17	8	0.1	0.6	0.7	✓	✓	-	✓	-	QFN-16 (3x3)	FCCM, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8867	4.5	17	8	0.56	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	QFN-14 (3x4)	I^2C interface, prog. V_{OUT}, power-save mode
MP8759	4.5	26	8	0.117	0.6	0.7	✓	-	✓	✓	-	QFN-12 (2x3)	USM, PFM/PWM selection, hiccup mode OCP and UVP, output discharge

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP2238	4.2	18	8	0.15	0.6	0.6	-	-	✓	✓	-	QFN-12 (2x3)	1% V_{FB} accuracy, 8A version of the MP2236
MP8771	3	18	10	0.1	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MPQ8636A -10	4.5	18	10	0.86	0.611	Prog	✓	✓	-	✓	✓	QFN-16 (3x4)	CCM, latch-off OVP/OCP
MP8758H	4.5	22	10	0.19	0.604	0.5	✓	-	✓	✓	-	QFN-21 (3x4)	Thermal auto-retry, hiccup mode OCP and UVP, PFM/PWM mode
MP8714	4.5	17	10	0.56	0.6	Ext clock	✓	✓	✓	-	-	QFN-14 (3x4)	Ext. freq. sync 200kHz to 2MHz, current mode
MP8868	4.5	17	10	0.56	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	QFN-14 (3x4)	I^2C interface, prog. V_{OUT}, power-save mode
MP8720	4.5	26	10	0.14	0.6	0.7	✓	-	✓	✓	-	QFN-16 (3x3)	Output discharge, adj. current limit, FCCM or PSM, over-current limit, latch-off reset
MP8772	3	17	12	0.1	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MP8774	3	18	12	0.1	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	Wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8774H	3	18	12	0.1	0.6	1.4	✓	✓	✓	✓	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8869S	2.85	18	12	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	-	QFN-14 (3x4)	V_{OUT} adj. up to 5.5V with FB pin, integrated telemetry, accurate V_{OUT}/I_{OUT} readback via I^2C, P2P with the MP8861/54
MP8719	4.5	26	12	0.135	0.6	0.5 / 0.7	✓	-	✓	✓	-	QFN-16 (3x3)	Output discharge, USM, buck converter with ±1A LDO and buffered reference
MPQ8636H -20	4.5	18	20	1	0.611	Prog	✓	✓	-	-	✓	QFN-29 (5x4)	CCM, hiccup OVP
MP8792	2.7	16	12	0.65	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	Differential V_{OUT} sense, adj. accurate current limit level, 0.5% FB, selectable PSM/FCCM, V_{OUT} tracking, pre-biased start-up
MP8794	2.7	16	20	0.65	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	Adj. current limit, prog. freq., differential V_{OUT} sense
MP8796	4	16	30	0.7	0.6	Prog	✓	✓	✓	✓	-	TQFN25 (4x5)	Prog. current limit, scalable multi-phase operation, remote sense, hiccup or latch-off for OCP, OVP, and OTP, non-PMBus version of the MPQ8645P
MP8796B	4	16	30	2.5	0.6	Prog	✓	-	-	✓	-	TQFN-25 (4x5)	Digital with PMBus

N - New Product S - Sampling Product

Step-Down Converters (Buck) | Maximum Operating Input Voltage < 100V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectifier	Industrial	Package	Notes
MP4410	4.5	36	0.1	0.02	1	Prog	✓	-	-	✓	-	QFN-10 (3x3)	Low I_Q
MP4568	4.5	45	0.1	0.02	1	Prog	-	✓	-	✓	✓	QFN-10 (3x3)	Programmable peak-current limit
MP4569	4.5	75	0.3	0.02	1	1000	✓	✓	-	✓	✓	QFN-10 (3x3), SOIC-8E	Integrated high-side/low-side
MP2420	4.5	75	0.3	0.02	1	Prog	✓	✓	-	✓	✓	TSSOP-16	Watchdog, step-down
MPQ2459	4.5	55	0.5	0.73	0.812	480	-	-	-	-	✓	TSOT23-6	Built-in power MOSFET
MPQ2456	4.5	50	0.5	0.73	0.85	1200	-	-	✓	-	✓	TSOT23-6	OCP
MP4566	4.5	36	0.6	0.035	1	1000	-	-	✓	-	-	QFN-8 (2x3)	-
MPQ2451	3.3	36	0.6	0.13	0.794	2000	-	-	✓	-	✓	TSOT23-6L, QFN-6L	-
MP2454	3.3	36	0.6	0.06	0.8	2300	✓	✓	-	-	✓	QFN-10 (3x3)	External frequency sync
MP2457	5	36	0.6	0.065	0.8	2000	-	-	✓	✓	✓	TSOT23-6	-
S **MP2460**	4.5	45	0.6	0.15	0.8	1600	-	-	✓	✓	-	TSOT23-6	LDO mode, 98% max duty
S **MP4541**	10	80	0.8	0.015	1	Prog	-	-	✓	✓	✓	SOIC-8EP	-
N **MP4581**	10	100	0.8	0.015	1	Prog	-	-	✓	✓	✓	SOIC-8EP	High efficiency at light loads
MPQ4458	3.8	36	1	0.12	0.8	Prog	-	-	-	-	-	TQFN-10 (3x3)	Integrated HS-FET
MPQ4558	3.8	55	1	0.14	0.8	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	Current mode control
MP4431 MPQ4431	3.3	36	1	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MP2269	3.3	30	1	0.012	0.8	Prog	✓	✓	✓	✓	-	QFN-15 (2x3)	Current mode control, low I_Q, forced PWM or auto-PFM/PWM, low-dropout mode
MPQ4459	3.8	36	1.5	0.12	0.8	Prog	-	-	✓	-	✓	TQFN-10 (3x3)	Current mode control
MPQ2490	4.5	36	1.5	0.5	0.805	700	✓	✓	-	-	✓	SOIC-8	Prog. output current limit
MPQ4561	3.8	55	1.5	0.14	0.795	Prog	-	✓	✓	-	-	QFN-10 (3x3)	Integrated HS-FET
MP4425M MPQ4425M	4	36	1.5	0.5	0.2	2200	-	-	-	-	✓	QFN-13 (2.5x3)	PWM dimming and OCP/SCP protection, ext. freq. sync
MP9942 MP9942A	4	36	2	0.5	0.792	410	✓	-	✓	✓	-	TSOT23-8	Consumer grade, ext. freq. sync
MP4420H MPQ4420H	4	36	2	0.5	0.792	410	✓	-	-	✓	✓	TSOT23-8	External frequency sync
MPQ4560	3.8	55	2	0.14	0.797	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
MP2499	4.5	55	2	0.5	0.8	100	-	✓	-	-	-	SOIC-16	Programmable output current
MP4432 MPQ4432	3.3	36	2.2	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MPQ4460	3.8	36	2.5	0.12	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3)	Programmable output current
MP2560	4.5	42	2.5	0.12	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3), SOIC-8E	Current mode control
MP2565	4.5	50	2.5	0.12	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3), SOIC-8E	Integrated HS-FET

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage < 100V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectifier	Industrial	Package	Notes
MP2496	7	36	2.5	1.6	-	350/250 /150	-	-	-	-	-	QFN-26 (4x4)	Int. smart USB charging port, auto-detect, cable compensation
MP2499A	5	36	3	0.7	0.792	Prog	-	-	✓	✓	-	QFN-13 (2.5x3)	Current mode control, ext. freq. sync, output line drop compensation
MP4423H MPQ4423H	4	36	3	0.5	0.79	410	✓	-	-	✓	✓	QFN-8 (3x3)	External frequency sync
MP9943 MP9943A	4	36	3	0.5	0.79	410	✓	-	✓	✓	-	QFN-8 (3x3)	Consumer grade, ext. freq. sync
MP4433 MPQ4433	3.3	36	3	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MP4570 MPQ4570	4.5	55	3	0.45	1	Prog	✓	✓	✓	✓	✓	TSSOP-20EP	External frequency sync
MP2263	3.3	30	3	0.012	0.8	350 to 2500 (Adj)	✓	✓	✓	✓	-	QFN-15 (2x3)	Current mode control, low I_Q, forced PWM or auto-PFM/PWM, low-dropout mode
S **MP8883 MPQ8883**	3.5	45	3	0.6	-	Prog	✓	-	✓	✓	✓	QFN-16 (3x3)	Current mode, I^2C, OTP, ext. freq. sync
MP4462 MPQ4462	3.8	36	3.5	0.12	0.792	Prog	-	-	-	✓	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
MP4473	4.5	36	3.5	0.5	0.815	Prog	✓	✓	✓	✓	✓	QFN-20 (3x4)	High frequency
MP4430 MPQ4430	3.3	36	3.5	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
S **MP4423C MPQ4423C**	4	36	6	0.75	0.792	420/2200	-	-	✓	✓	✓	QFN-16 (3x4)	Spread spectrum, PFM/PWM mode, ext. sync, output discharge
MP2491C	4	32	6	0.45	0.5	490	✓	-	✓	✓	-	QFN-13 (2.5x3)	Adjustable current limit, V_{OUT} scaling control
S **MP8880 MPQ8880**	3.5	60	4	-	-	200 to 2500	✓	-	-	✓	-	QFN- (4x5)	Digital prog. sync, AEC-Q100 qualified
MP8675	4.5	42	6	0.9	0.808	420	-	-	-	✓	-	SOIC-8E	Synchronizable gate driver, ext. freq. sync

Step-Down Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Soft Start	Package	Notes
MP2910	5	12	2.7 (I_{CC} UG and LG Open)	0.8	300	Int	SOIC-14, SOIC-8E	Sync PWM DC/DC linear, power good indicator for Intel, Grantsdale FSB_VTT power sequence
MP2905	3	28	0.6	0.6	200 to 500 (Adj)	Ext	MSOP-10	Ideal for applications above 15A
MP9928	4	60	0.75	0.8	Adj via Ext R_{FREQ}	Ext	TSSOP-20EP, QFN-20 (3x4)	Current mode, duty cycle up to 99.5%, prog. freq.
MP2908A	4	60	0.75	0.8	100 to 1000 (Adj)	Ext	TSSOP-20EP, QFN-20 (3x4)	Industrial grade, power good, prog. CCM, AAM, pulse-skip mode

S - Sampling Product

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Up Charge Pump

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Industrial	Package	Notes
MP9361	2.8	5	0.11	2	1350	✓	TSOT23-6	Fixed $5V_{OUT}$, high performance, regulated, int. soft start, OCP, SCP, inrush current limit
MP9218	2.8	5	0.11	2	1350	-	QFN-6 (2x2)	Fixed $5V_{OUT}$, high performance, regulated

Step-Up Contollers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	f_{SW} (kHz)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	Soft Start	Package	Notes
MP3910	5	35	1	30 to 400 (Adj)	0.288	1.237	Ext	MSOP-10	Supports pulse-skip mode at light loads, 95% max duty cycle
MP3910A	9	14	1	30 to 400 (Adj)	0.288	1.237	Ext	SOIC-8E	Supports pulse-skip mode at light loads, 95% max duty cycle
MP6002	10	100	3	550	1	1.21	Int	SOIC-8E	Flyback/forward DC/DC converter, 30W, int. 150V power switch
MP6001	10	100	2	550	1	1.21	Int	SOIC-8E	Flyback/forward DC/DC converter, 15W, int. 150V power switch
MP6003	10	100	-	550	1	1.21	Int	SOIC-8E	Monolithic flyback/SEPIC DC/DC converter

Step-Up Converters (Boost)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{OUT} Range (V)	f_{SW} (kHz)	Package	Notes
MP3209	2.5	6	0.35	0.64	3 to 22	1400	TSOT23-5, UTQFN-8 (2x2)	Int. comp, tiny inductors and capacitors (+J168:J192) can be used
MP3217	2.5	6	0.5	0.46	V_{IN} to 36	670	TSOT23-6	Cycle-by-cycle OCP, UVLO, thermal shutdown, P2P with the MAX5025-5028
MP1400	2.7	7	0.6	0.2	-0.9 to -6	1500	CSP-8 (0.8x1.6)	Output adj. from -0.9V to -6V, very small size
MP5418	2.3	5	0.2	0.22	0 to V_{IN}	30 to 550	QFN-10 (1.8x1.4)	Dual output, negative charge pump, adj. regulator
MP3416	0.8	5.5	1	0.009	1.8 to 5.5	1500	TSOT23-8, QFN-8 (1.5x2.2)	Output disconnect, down mode, sync
MP3120	0.8	5	1.2	0.47	2.5 to 5	1100	TSOT23-6	Output disconnect, LDO mode, sync
MP3430	2.7	5.5	1.2	0.3	2.7 to 90	1300	QFN-16 (3x3)	APD current monitoring (1:10 or 1:2 ratio) with 5% accuracy and 50ns response time, prog. APD current limit and protection, int. comp and SS
MP3410	1.8	6	1.3	0.36	2.5 to 6	550	TSOT23-5	Output disconnect, sync
MP3414	0.6	4	1.8	0.035	1.8 to 4	1000	TSOT23-8	Output disconnect, sync
MP1541	2.5	6	1.9	0.64	3 to 22	1300	TSOT23-5	Internal current limit
MP1542	2.5	22	2.6	0.7	3 to 22	700/1300	MSOP-8	Programmable soft start
MP3414A	1.8	5.5	3	0.022	1.908 to 5.5	1000	TSOT23-8	Wider input version of the MP3414, sync
MP3213	2.5	22	3.5	0.7	3 to 22	700/1300	MSOP-8E	Programmable soft start

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Up Converters (Boost)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{OUT} Range (V)	f_{SW} (kHz)	Package	Notes
MP1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN-16 (3x3), TSSOP16	Triple output charge pump, LDO for TFT bias
MPQ1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN-16 (3x3)	Triple output charge pump, LDO for TFT bias, industrial grade
MP3415	1.8	5.5	4.2	0.022	1.98 to 5.5	1000	QFN-12 (2x2)	Output disconnect, sync
MP3425	3.1	22	5	0.65	3.1 to 55	300 to 2000 (Prog)	QFN-14 (3x4)	Prog. UVLO and EN hysteresis, industrial grade
MP3421	1.9	5.5	5.5	0.043	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3422	1.9	5.5	6.5	0.043	2.5 to 5.5	600	QFN-14 (3x4)	Output disconnect, sync
MP3426	3.2	22	8.5	0.65	3.2 to 35	300 to 2000 (Prog)	QFN-14 (3x4)	Prog. UVLO, soft start, UVLO hysteresis, industrial grade
MP3423	1.9	5.5	9	0.043	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3424	2	5.5	9.5	0.32	3 to 5.5	580	QFN-14 (2x2)	Prog. current, output disconnect, sync
N **MP3437**	2.7	16	10	0.1	V_{IN} to 16	600	TSOT23-8, QFN-10 (2x2.5)	PSM, FCCM, and USM in light load
MP3432	2.7	13	10	0.51	V_{IN} to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. switching peak current limit, auto pass-through mode in PSM when $V_{IN} > V_{OUT}$, sync
MP3429	0.8	13	21.5	0.45	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. UVLO and hysteresis, sync
MP3431	2.7	13	21.5	0.45	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. input current limit, UVLO, and hysteresis, sync
MP3428A	3	20	25	0.65	3 to 22	600	QFN-22 (3x4)	Input disconnect, ext. soft start, prog. UVLO and hysteresis, sync

Step-Up Energy Storage (Dying Gasp)/Power Backup Management PMICs

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{STRG} (Max) (V)	I_{LIMIT} Charging (A)	I_{LIMIT} Dumping (A)	I_Q (Typ) (mA)	V_{FB} (V)	Package	Notes
MP5505E	2.7	7	30	0.54	6	2 (Max)	0.801/0.795	QFN-20 (3x4)	Input current limit, adj. dV/dt slew rate, reverse-current protection
MP5455	2.7	7	30	0.5	5	2 (Max)	0.79	QFN-20 (3x4)	For USB Type-C HDMI comm. interface reference design
MP5507E	2.7	7	30	0.5	5	2 (Max)	0.79	QFN-16 (2.5x3.2)	Bus power good indicator, adj. dV/dt slew rate for VB start-up, 1.2MHz buck release mode switching freq., smaller package version of the MP5505A
MP5512	4	18	40	0.96	5	1	0.8	QFN-28 (4x5)	Prog. storage and release voltage, hot-swap management unit for PCIe
MP5515	2.8	18	32	0.5 to 2	6.5	3 (Max)	0.8	QFN-30 (5x5)	Prog., high-efficiency, lossless energy storage and power backup management unit for SSD and HDD applications

N - New Product S - Sampling Product

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Up LNBs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Standard	I_{OUT} (Max) (A)	22kHz Tone Signal Generated		Package	Notes
	MP8124	8	14	DiSEqC™ 1.x	0.5	Ext	-	QFN-14 (2x3)	Converter with internal switch, low-noise LDO output, line drop compensation, selectable V_{OUT} comp., adj. SS output
N	**MP8128**	8	14	DiSEqC™ 1.x and DiSEqC™ 2.x	1	Selectable Int or Ext	-	QFN-20 (3x3)	I²C interface, low-noise LDO output, selectable V_{OUT}

Buck-Boost

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Sync	Package	Notes
	MP8860	2.8	22	1	1	-	500	✓	QFN-16 (3x3)	1A I_{OUT}, 4-switch converter, I²C, 1V to 20.47V V_{OUT} range
	MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT}, 4-switch converter, I²C, 1V to 20.47V V_{OUT} range
	MP2155	2	5.5	2.2	0.08	0.496	1000	✓	QFN-10 (3x3)	Power-save mode, load disconnect, 1.5V to 5V V_{OUT} range
	MP28160	2.5	5.5	2.5	0.22	-	1800	✓	CSP-12 (1.4x1.8)	0.5A I_{OUT} converter, fixed 3.3V_{OUT}
	MP28163	2	5.5	2.9	0.07	0.496	1100	✓	QFN-10 (3x3)	Power-save mode, load disconnect, 1.5V to 5V V_{OUT} range
	MP28167-A	2.8	22	3	1	1	500/750 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch integrated converter, 1V to 20.47V V_{OUT} range with FB pin, I²C
	MP28167	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch converter, fixed 5V_{OUT}
	MP8859	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch converter, I²C, 1V to 20.47V V_{OUT} range
	MP28164	1.2	5.5	4.2	0.025	0.5	2000	✓	QFN-11 (2x3)	Power-save mode, load disconnect
N	**MP4245**	4	36	5	0.18	0.1/0.4/0.72/1.6	250/350/420 (Selectable)	✓	QFN-21 (4x5)	4-switch USB PD solution converter, spread spec. sel., I²C and 2-time prog. MTP
S	**MP2980**	4	24	Prog	0.07/0.055	Prog	200/300/400/600 (Selectable)	✓	QFN-32 (4x4)	4-switch controller, I²C, 3V to 20V V_{OUT} range
S	**MP2984**	5	36	Prog	0.07/0.055	Prog	Selectable: 200/ 300/400/600	✓	QFN-32 (4x4)	USB Type-C PD controller, I²C, <50mA step current limit adj. via IPWM pin, 3V to 20V V_{OUT} range
S	**MP4247 (hybrid)**	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 100W, int. low-side MTP MOSFETs, I²C

LDO | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	Load Regulation (%/mA)	PSRR at 1kHz (dB)	V_{FB} (Typ) (V)	Dropout Voltage (mV)	Package	Notes
MP2000	1.35	6	150	65	0.001	50	0.5	250 (I_O: 100mA) 300 (I_O: 150mA)	TSOT23-5	Low-voltage input (1.35V to 6V)
MP8801	2.7	6.5	150	125	0.001	70	1.22	150 (I_O: 150mA)	TSOT23-5	Low noise, excellent for RF applications, low cost
MP8802	2.7	6.5	250	125	0.001	70	1.22	230 (I_O: 250mA)	TSOT23-5	Excellent for RF applications, low cost
MP20056	2.5	5.5	250	150	0.003	63	0.8	100 (I_O: 250mA)	QFN-8 (2x2), TSOT23-5	Fixed output, current limiting, thermal protection
MP20041	2.5	6	300 (2x)	114	0.003	65	-	75 (I_O: 100mA) 220 (I_O: 300mA)	QFN-8 (2x2)	Dual fixed output, P2P with the RT9012
S **MP2002A**	1.35	6.5	500	100	0.001	26	0.5	290 (I_O: 500mA)	QFN-8 (2x3)	Adj. V_{OUT}, PG and EN pins
MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (I_O: 500mA)	QFN-8 (2x3)	Power good output, industrial grade
MP20045	2.5	5.5	1000	110	0.003	56	1.5	140 (I_O: 1000mA)	QFN-8 (3x3), SOIC-8E	High input/output current with fast response, fixed and adj. +0252 V_{OUT}
MP20051	2.5	5.5	1000	110	0.003	63	0.8	140 (I_O: 1000mA)	QFN-8 (3x3), SOIC8E (4.9x6)	-
MP20046	2.7	5.5	2000	75	0.003	70	-	210 (I_O: 2000mA)	SOIC-8E, QFN-10 (3x3)	High input/output current with fast response
MP20073	1.3	6	2000	-	-	-	-	-	MSOP-8E	DDR2/3 termination regulator
MP20075	1.3	3.6	3000	-	-	-	-	-	MSOP-8E	DDR2/3/3L/4 termination regulator, VDRV = 3.3V

High-Performance Low-Dropout Linear Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	Load Regulation (%/mA)	PSRR at 1kHz (dB)	V_{FB} (Typ) (V)	Dropout Voltage (mV)	Package	Notes
MP2016	4	42	30	12	0.003	50	1.23	700 (I_O: 30mA)	QFN-8 (2x3), TSOT23-5	Ideal for automotive applications
MP2015A	2.5	24	150	3.3	0.005	41	1.215	700 (I_O: 150mA)	TSOT23-4, QFN-6 (2x2), QFN-8 (3x3)	EN pin
MP2019	3	40	300	10	0.04	45	1.25	420 (I_O: 300mA)	SOIC-8EP	Industrial grade
MP2014	3	40	500	10	0.03	45	-	750 (I_O: 500mA)	TO252-5	Low I_Q
MP2018	3	16	500	10	0.03	45	-	750 (I_O: 500mA)	TO252-5	Low I_Q, fixed V_{OUT}, power good
MP2005	1	5.5	800	100	0.001	65	0.5	70 (I_O: 800mA)	QFN-8 (2x3)	Fast transient, 48dB PSRR at 1MHz

N - New Product S - Sampling Product

SUPERVISORY | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (µA)	Threshold Accuracy (%)	Reset Threshold Accuracy (%)	Delay Time (ms)	Package	Notes
MP6400	1.8	6	1.6	1	1	2.1 to 10000	QFN-10 (3x3)	Power-save mode, load disconnect
MPQ6411	4.8	5.2	-	-	-	-	QFN-10 (3x3)	Power-save mode, load disconnect
MP6420	3.6	18	3	0.5	-	3000 to 4600	TSOT23-8	Battery protection IC for two three-series cell Li-ion, int. protective MOSFET, PTC interface
MP6412	2.2	12	1	-	-	-	QFN-10 (1.4x1.8)	Ultra-low I_Q load switch controller, reset timer

MOSFET DRIVERS | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Bootstrap Supply (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-On Delay (ns)	Turn-Off Delay (ns)	Package	Notes
MP18024	9	16	100	3	4.5	15	9	20	20	SOIC-8E	4A, high frequency
MP1906	10	16	80	0.35	1	50	30	80	80	SOIC-8	High performance
MP1907	4.5	18	100	2.5	3.5	12	9	18	20	QFN-10 (3x3)	High frequency
MP18021A	9	18	100	1.5	2.5	12	9	16	16	SOIC-8E, QFN-8 (3x3)	High frequency, industrial grade
MP18021	9	18	100	1.5	2.5	12	9	16	16	SOIC-8EP, QFN-8 (3x3)	High frequency, N-channel MOSFET with 1ns matching delay
N **MP1909**	4.5	12	50	2	4	10	6	110	30	SOT583	Low I_Q, supports 100% duty, 30V, high frequency
S **MP1911**	2.5	16	-	-	-	30	30	270	350	SOT583	1A, H-bridge solenoid valve driver
MP1917	8	17	115	2.6	4.5	15	15	20	20	QFN-8 (4x4)	105V, 4A, high-frequency, half-bridge gate driver
MP1917A	8	15	115	2.6	4.5	15	15	20	20	QFN-10 (4x4)	100V, 4A, high-frequency, half-bridge gate driver

PMICS & MULTIPLE OUTPUTS | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	f_{SW} (kHz)	Package	Notes
MP28300	2	5.5	Buck: 0.8/1/1.2/1.5/1.8/2.5/3.3 LDO: 1.3/1.8/3.3	-	0.3	1500	QFN-12 (2x2)	Ultra-low 500nA I_Q, 300mA buck + 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
N **MP28310**	2	5.5	Buck: 1.2/1.5/1.8/2.5/2.8/3/3.3 LDO: 1.8/2.8/3	-	0.3	1500	CSP-12 (1.2x1.6)	Ultra-low 500nA I_Q, ultra-small package, 300mA buck and 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
MP28301	2	5.5	Buck: 0.8/1/1.2/1.5/1.8/2.5/3.3 LDO: 1.2/2.5/3	-	0.7	1500	QFN-12 (2x2)	Ultra-low 500nA I_Q, 700mA buck + 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
MP5408	6	36	5.1/5.17/5.3	-	USB 1: 3 USB 2: 3	Prog	QFN-26 (5x5)	Integrated, smart, dual USB charging ports, auto-detection, supports USB Type-C 5V at 3A DFP mode
MP5403	2.7	6	Ch 1: 0.9/1.1/2.5/2.85 Ch 2: 0.9/1.2/1.8/2.5	0.6	Ch 1: 3.5 Ch 2: 2.5	1500	UTQFN-20 (2.5x3)	Configurable mini PMIC, two buck converters (2.5A/3.5A), one load switch (3A)
MP5403B	2.7	6	0.6 to 6	0.6	Ch 1: 5 Ch 2: 4	1500	UTQFN-20 (2.5x3)	Mini PMIC, dual peak buck converter (4A/5A), one load switch (2A)
MP5416	2.8	5.5	Prog	Prog	Prog Buck 1: 4.5 Buck 2: 2.5 Buck 3: 4 Buck 4: 2	Prog	QFN-28 (4x4)	I^2C, one-time prog. (OTP) memory, prog. V_{OUT}/f_{SW}/I_{SW} via I^2C/OTP, config. mini PMIC, four buck converters (4.5A/4A/2.5A/2A), four 300mA LDOs, one 10mA RTC LDO
MP5418	2.3	5	V_{OUT1}: 0 to -V_{IN} V_{OUT2}: 0 to -CTL	-	0.2	30 to 550	QFN-10 (1.4x1.8)	Negative charge pump, adj. negative regulator
MP5470	4	16	0.55 to 7	Prog	Prog Buck 1: 3 Buck 2: 3 Buck 3: 2 Buck 4: 2	800	QFN-22 (3x4)	I^2C, four buck converters, parallel mode for higher current, one GPIO pin
S **MP5475**	3	16	Prog	VFB1: 1.1 VFB2: 1.1 VFB3: 1.1 VFB4: 1.8	Prog Buck 1: 6 Buck 2: 6 Buck 3: 6 Buck 4: 6	Prog	QFN-35 (5x5)	Fully integrated, 12V, 6A, quad-buck, I^2C, telemetry, flexible system configuration
S **MP5417**	2.8	5.5	Prog	Prog	Prog Buck 1: 4 Buck 2: 2 Buck 3: 4 Buck 4: 2	Prog	QFN-28 (4x4)	I^2C, one-time prog. (OTP) memory, prog. V_{OUT}/f_{SW}/I_{SW} via I^2C/OTP, four buck converters, two LDOs, two GPIO pins
S **MP5413**	2.7	5.5	Prog	Prog	Prog Buck 1: 3 Buck 2: 2 Buck 3: 3 Buck 4: 2	Prog	WLCSP-38 (2.7x3.1)	Ultra-small package, sleep mode control, I^2C, one-time prog. (OTP) memory, prog. V_{OUT}/f_{SW}/I_{SW} via I^2C/OTP, four buck converters, two LDOs, two GPIO pins
MP5461	V_{IN1}: 4.2 V_{IN2}:2.5	V_{IN1}: 22 V_{IN2}: 5.5	3.3	-	2.5	1800	CSP-12 (1.4x1.8)	Dual-input O-ring switches, power path selection input/ indication, fast SCP on OROUT, fast reverse block within 2µs on OR_{OUT}, output OVP for buck-boost

N - New Product S - Sampling Product

PMICS & MULTIPLE OUTPUTS | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	f_{SW} (kHz)	Package	Notes
S **MP5423**	25	100	Buck: 14 LDO 1/2: 5/3.3	-	0.3	200	SOIC-8EP (4.9x6)	300mA buck converter, two LDOs (100mA/40mA)
S **MP5424**	2.7	5.5	Buck 1/2/3/4: 0.4 to 3.58 (Adj) LDO 2/4/5: 0.65 to 0.3587 (Adj)	$V_{FB1/2/3/4}$: 0.4 to 3.58 (Adj)	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	1100 to 2750 (Prog)	QFN-26 (3.5x4.5)	Prog. V_{OUT} via I²C/MTP, config. mini PMIC, four buck converters (2A/2.5A/4.5A/4.5A), three LDOs (0.3A), one load switch (3A), POR output
S **MP8855**	2.7	22	Buck-Boost: 0.6 to 22 Buck: 0.6 to V_{IN} Boost (3x3): 3.7 to 22 Boost (3x4): 2.7 to 22	Prog	Prog Buck 1: 5 Buck 2: 5	1000	QFN-21 (4x4)	Five-topology selection via the PSEL pin, one buck-boost, two bucks, one interleaving buck, one interleaving boost, one buck + one boost, MTP prog. parameters
MPQ7920-AEC1	2.7	5.5	0.4 to 3.58 or V_{IN}	V_{FB1}:1.375 V_{FB2}: 1.35 V_{FB3}: 1.375 V_{FB4}: 0.675	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	Adj	QFN-26 (3.5x4.5)	Four buck converters, RTC dedicated LDO+, four low-noise LDOs, I²C, two-time prog. MTP
N **MP5479**	2.7	5.5	Buck 1/2/3: 0.4V to 3.58V/12.5mV Step, or 0.4V to 2.2V/7.4mV Step Buck 4: 0.4V to 3.58V/12.5mV Step LDO: 0.65V to 3.58V/12.5mV Step	V_{FB1}: 1.375 V_{FB2}: 1.35 V_{FB3}: 1.375 V_{FB4}: 0.675	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	1100 to 2750 (Prog)	QFN-26 (3.5x4.5)	Four buck converters, five LDOs, flexible system settings via I²C and MTP
S **MP5419**	2.5	5.5	Buck: 0.6 to 3.1875 Boost: 4.5 to 5.5 LDO: 0.6 to 3.775, or 0.8108 to 5.1015	1.6	Buck: 2.5 Boost: 3	3000 or 1500 set by I²C	WLCSP-25 (2.25x2.35)	Digital, six channels, 1.2A buck, 1.2A boost, four 300mA LDOs, buck: selectable FCCM and PFM/PWM mode

FLYBACK | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (MHz)	Package	Notes
MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
N **MP6005**	8	80	0.8V x 160mV / R_{SENSE}	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate, 0.8A sync drivers
MP6001	10	100	2	1	1.21	-	SOIC-8E	15W, integrated 150V power switch
MP6002	10	100	4	1	1.21	-	SOIC-8E	30W, integrated 150V power switch

FULLY INTEGRATED POE PD SOLUTIONS | DC/DC POWER CONVERSION

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8004	100V, 1Ω DMOS	420	✓	802.3af	QFN-20 (4x6)	13W PoE PD interface and PWM converter
MP8007	100V, 0.48Ω DMOS	840	✓	802.3af	QFN-28 (4x5)	13W primary-side regulated flyback without optocoupler feedback, 200kHz f_{SW}
MP8008	100V, 0.48Ω DMOS	840	✓	802.3af/at	QFN-28 (4x5)	25.5W PoE PD interface and peak-current mode flyback controller
N **MP8009**	100V, 0.48Ω DMOS	840	✓	802.3af/at	QFN-28 (4x5)	PD interface and PSR/SSR controller
MP8007H	100V, 0.48Ω DMOS	840	✓	802.3af	QFN-28 (4x5)	13W primary-side regulated flyback without optocoupler feedback, 300kHz f_{SW}
S **MP8030**	100V, 0.35Ω DMOS	Prog	✓	802.3af/at/bt	QFN-32 (5x6)	High efficiency, supports forward/flyback topology

DC/DC CONTROLLERS FOR POE | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (MHz)	Package	Notes
MP3900	8.6	12	0.2V / R_{SENSE}	0.18	0.816	330	MSOP-8	Boost controller, 10V gate driver
MP6001	10	100	2	-	-	55 to 550	SOIC-8E	15W, integrated 150V power switch
MP6002	10	100	4	1	1.21	55 to 550	SOIC-8E	30W, integrated 150V power switch
MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
N **MP6005**	8	80	0.8V x 160mV / R_{SENSE}	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate, 0.8A sync drivers

POE PSE CONTROLLERS | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{CUT}	I_{LIM}	PoE Standards Supported	FET	MPS Method	Pair Control	Operating Temperature Range (°C)	Number of PSE Ports	Package	Notes
S **MP3924**	44	57	Prog	Prog	802.3af/at	-	DC Disconnect	-	-40 to +125	4	QFN-32 (5x5)	PoE, auto mode, I²C command control mode

POE PD IDENTITY | DC/DC POWER CONVERSION

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8003A	100V, 0.48Ω DMOS	840	✓	802.3af/at	QFN-10 (3x3)	25.5W PoE PD controller
MP8001	100V, 0.8Ω DMOS	420	✓	802.3af	SOIC-8	15W PoE PD controller
S **MP8020**	100V, 0.35Ω DMOS	Prog	✓	802.3af/at/bt	QFN-18 (3x5)	71W PoE PD controller

N - New Product S - Sampling Product

DIGITAL REGULATORS | DC/DC POWER CONVERSION

Synchronous Step-Down Converter with I²C/PMBus Interface

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectification	Constant-On-Time (COT)	Package	Notes
	MP8833	2.7	5.5	1.5	1	2.5	Prog	-	✓	-	-	-	QFN-16 (2x3)	I²C interface, TEC current monitor, external sync function
	MP8854	2.85	18	4	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C prog. FB range, int. telemetry, accurate output voltage/current, readback via I²C
S	**MP8853**	2.85	18	4	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	✓	QFN-14 (3x3)	I²C prog. FB range, int. telemetry, accurate output voltage/current, readback via I²C
	MP8861	2.85	18	6	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C prog. FB range, int. telemetry, accurate output voltage/current, readback via I²C
	MP8864	4.5	21	4	0.5	0.6 to 1.87V	0.6 to 1.6MHz (Selectable)	✓	✓	✓	✓	-	QFN-15 (3x3)	Prog. V_{OUT}, power-save mode
	MP8847	2.7	6	6	0.3	0.6	850 to 2200	✓	-	✓	✓	-	QFN-14 (2x3)	Prog. V_{OUT}, power-save mode
	MP8865	4.5	21	6	0.5	0.6 to 1.87V	0.6 to 1.6MHz (Selectable)	✓	✓	✓	✓	-	QFN-15 (3x3)	Prog. V_{OUT}, power-save mode
	MP8867	4.5	17	8	0.56	0.6	0.5 to 1.5MHz (Selectable)	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT}, power-save mode
	MP8868	4.5	17	10	0.56	0.6	0.5 to 1.5MHz (Selectable)	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT}, power-save mode
S	**MPQ8861**	2.85	18	12	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	✓	QFN-14 (3x4)	Wettable flank package, output adj. in 4mV steps, I²C
	MP8869S	2.85	18	12	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	V_{OUT} adj. up to 5.5V with FB pin, int. telemetry, accurate output voltage/current, readback via I²C
	MP8796B	4	16	30	2.5	0.6	Prog	✓	-	-	✓	✓	TQFN-25 (4x5)	Digital with PMBus

Synchronous Step-Down Converter with I²C/PMBus Interface

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Sync	Package	Notes
	MP8859	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch, I²C, 1V to 20.47V V_{OUT} range
	MP8860	2.8	22	1	1	-	500	✓	QFN-16 (3x3)	1A I_{OUT}, 4-switch, I²C, 1V to 20.47V V_{OUT} range
	MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT}, 4-switch, I²C, 1V to 20.47V V_{OUT} range
	MP28167-A	2.8	22	3	1	1	500/750 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch, int. converter, 1V to 20.47V V_{OUT} range with FB pin, I²C
S	**MP4247 (hybrid)**	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 100W, low-side, int. MTP MOSFETs, I²C

SINGLE-OUTPUT BUCK MODULES WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous (V_{IN} Max ≤ 7V)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
MPM3804	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	Adjustable V_{OUT}, excellent load and line regulation
MPM3804-12	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	1.2V fixed V_{OUT}, ultra-small QFN package
MPM3804-18	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	1.8V fixed V_{OUT}, ultra-small QFN package
MPM3804-25	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	2.5V fixed V_{OUT}, ultra-small QFN package
MPM3804-33	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	3.3V fixed V_{OUT}, ultra-small QFN package
MPM3805	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, adjustable V_{OUT}
MPM3805-12	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 1.2V fixed V_{OUT}
MPM3805-18	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 1.8V fixed V_{OUT}
MPM3805-25	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 2.5V fixed V_{OUT}
MPM3805-33	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 3.3V fixed V_{OUT}
MPM3811	1	2.3 to 5.5	✓	-	-	Internal	✓	QFN-10 (2x2x1.6)	Peak 1.2A, ultra-small QFN package, excellent load and line regulation
S **MPM3814C**	1	2.75 to 6	-	✓	-	Internal	✓	LGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adj. from 0.6V
MPM3810	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, adjustable V_{OUT}
MPM3810-12	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 1.2V fixed V_{OUT}
MPM3810-18	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 1.8V fixed V_{OUT}
MPM3810-25	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 2.5V fixed V_{OUT}
MPM3810-33	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q, 3.3V fixed V_{OUT}
MPM3822C	2	2.7 to 6	-	✓	-	Internal	✓	QFN-18 (2.5x3.5x1.6)	Ultra-low ripple, adjustable output from 0.6V, FCCM
S **MPM3824C**	2	2.75 to 6	-	✓	-	Internal	✓	LGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adj. from 0.6V
MPM3820	2	2.7 to 6	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Adj. output from 0.6V, ultra-low I_Q, high light-load efficiency
MPM3830	3	2.7 to 6	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	High light-load efficiency
MPM3833C	3	2.7 to 6	-	✓	-	Internal	✓	QFN-18 (2.5x3.5x1.6)	Ultra low ripple, sync, adjustable output from 0.6V, FCCM
S **MPM3834C**	3	2.75 to 6	-	✓	-	Internal	✓	LGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adj. from 0.6V
MPM3840	4	2.8 to 5.5	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Light-load efficiency, 100% duty cycle, low I_Q
MPM3860	6	2.75 to 7	-	✓	-	Int/Ext	✓	QFN-24 (4x6x1.6)	Adjustable output from 0.6V, FCCM

N - New Product S - Sampling Product

SINGLE-OUTPUT BUCK MODULES WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous (7V < V_{IN} Max ≤ 24V)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
MPM3606	0.6	4.5 to 21	✓	-	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, fast transient response
MPM3606A	0.6	4.5 to 21	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Power good, PSM at light load, adj. output from 0.8V
S **MPM3612**	1	3 to 22	✓	✓	-	Internal	✓	LGA (3x3x2)	Ultra-low 5μA I_Q
MPM3610	1.2	4.5 to 21	✓	-	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_Q
MPM3610A	1.2	4.5 to 21	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_Q, power good
MPM3620	2	4.5 to 24	✓	-	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V
MPM3620A	2	4.5 to 24	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Power good, adjustable output from 0.8V
MPM3632C	3	4 to 18	-	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, FCCM
N **MPM3632S**	3	4 to 18	-	✓	-	Internal	✓	EC LGA-10 (3x3x1.45)	Ultra-low profile, small package, FCCM, adj. output from 0.8V
N **MPM3650**	6	2.75 to 17	-	✓	-	Int/Ext	✓	QFN-24 (4x6x1.6)	Adjustable output from 0.6V, high efficiency, ultra-thin
N **MPM3650C**	6	2.75 to 17	-	✓	-	Int/Ext	✓	QFN-24 (4x6x1.6)	FCCM, adjustable output from 0.6V, high efficiency, ultra-thin
MPM3683-7	8	2.7 to 16	✓	✓	-	Internal	✓	QFN-28 (7x7x4)	Peak 10A, ultra-low ripple, ultra-fast transient response
S **MPM3683-10**	10	2.7 to 16	✓	✓	✓	Internal	✓	LGA-29 (7x7x4.4)	-
MPM3695-10	10	3.3 to 14	-	✓	✓	Internal	✓	LGA (8x8x2)	0.5V to 5V output, parallelable up to 60A peak, ultra-thin
MPM3695-25	20	3 to 16	-	✓	✓	Internal	✓	QFN-59 (10x12x4)	Peak 25A, 0.5V to 5.5V output, parallelable up to 50A peak
N **MPM3690-20B**	26	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N **MPM3690-30B**	36	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N **MPM3690-50B**	50	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N **MPM3695-100**	100	3.2 to 16	-	✓	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient, low ripple, parallelable up to 800A

Synchronous (24V < V_{IN} Max ≤ 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
MPM3506A	0.6	4.5 to 36	-	✓	-	Internal	✓	QFN-19 (3x5x1.6)	Adjustable output from 0.8V
MPM3509	0.9	4 to 36	-	-	-	Internal	✓	QFN-17 (3x5x1.6)	Adjustable output from 0.8V
MPM3510A	1.2	4.5 to 36	-	✓	-	Internal	✓	QFN-19 (3x5x1.6)	Adjustable output from 0.8V
MPM3515	1.5	4 to 36	-	-	-	Internal	✓	QFN-17 (3x5x1.6)	Adjustable output from 0.8V
N **MPM3520E**	2	4 to 36	-	✓	-	Internal	✓	LGA-8 (10x10x4.2)	Metal can, ultra-low EMI, adj. output from 1V to 5V
MPM3550E	5	4 to 36	-	✓	-	Internal	✓	LGA-18 (12x12x4.2)	Metal can, ultra-low EMI, adj. output from 1V to 12V

SINGLE-OUTPUT BUCK MODULES WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous (V_{IN} Max > 36V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM3570E	0.3	4.5 to 75	✓	✓	-	Internal	✓	LGA-8 (10x10x4.2)	Metal can power module, ultra-low EMI, adj. output from 1V to 5V
S	**MPM3593**	3	3.5 to 45	✓	✓	✓	Internal	✓	QFN-41 (6x8x1.6)	High efficiency, synchronous buck, OTP
	MPM3530	3	4.5 to 55	✓	✓	-	External	✓	QFN-44 (12x10x4)	Continous output, prog. f_{SW} with external sync function

MULTIPLE-OUTPUT MODULES | POWER MODULES

Synchronous (V_{IN} Max ≤ 45V)

	Part Number	I_{OUT} (A)	# of Outputs	V_{IN} (V)	Light-Load Efficiency	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM38111	Dual 1A	2	2.7 to 6	✓	-	-	Internal	✓	QFN-14 (4x4x1.6)	Ultra-low I_Q
	MPM38222	Dual 2A	2	2.7 to 6	✓	-	-	Internal	✓	QFN-14 (4x4x1.6)	Ultra-low I_Q
S	**MPM3596**	Dual 3A	2	3.5 to 45	-	-	✓	Internal	✓	QFN-45 (10x10x4)	Single 6A I_{OUT}, parallelable up to 36A
N	**MPM54304**	Quad (3A, 3A, 2A, 2A)	4	3 to 16	-	✓	✓	Internal	✓	LGA-33 (7x7x2)	MTP programmable
N	**MPM54504**	Quad 5A	4	3 to 16	-	✓	-	Int/Ext	✓	BGA (9x15x5)	Ultra-fast transient, low ripple
N	**MPM81204**	Quad (12A,12A, 5A, 5A)	4	4 to 16	-	✓	-	Internal	✓	BGA (9.5x16x4.98)	Ultra-fast transient, low ripple
N	**MPM3690-20A**	Dual 13A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N	**MPM3690-30A**	Dual 18A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N	**MPM3690-50A**	Dual 25A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient
N	**MPM82504**	Quad 25A	4	3 to 16	-	✓	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient, low ripple, parallelable up to 800A

N - New Product S - Sampling Product

Boost — Boost (V_{IN} Max < 6V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD41501A-A	1	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41502A-A	2	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	High efficiency
mEZD41503A-A	3	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	High efficiency

Boost — Boost (V_{IN} Max ≥ 6V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD41501A-B	1	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41501A-C	1	2.7 to 13	15	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41502A-B	2	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41502A-C	2	3.4 to 13	15	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41503A-B	3	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency

Boost — Buck (V_{IN} Max ≤ 24V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD71201A-A	1	4.5 to 24	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-B	1	4.5 to 24	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-C	1	4.5 to 24	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-D	1	4.5 to 24	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-E	1	4.5 to 24	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-F	1	4.5 to 24	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-G	1	6.5 to 24	5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-A	2	4.5 to 24	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-B	2	4.5 to 24	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-C	2	4.5 to 24	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}

mEZ POWER MODULES | POWER MODULES

Buck — Buck (V_{IN} Max ≤ 24V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD71202A-D	2	4.5 to 24	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-E	2	4.5 to 24	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-F	2	4.5 to 24	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71202A-G	2	6.5 to 24	5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-A	3	5 to 16	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-B	3	5 to 16	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-C	3	5 to 16	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-D	3	5 to 16	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-E	3	5 to 16	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-F	3	5 to 16	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71210A-A	10	4.5 to 17	1	-	-	✓	Int	OCP, OTP, SCP	SiP-10 (27x20)	400kHz f_{SW}

Buck — Buck (24V < V_{IN} Max ≤ 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD72401A-A	1	4.5 to 36	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-B	1	4.5 to 36	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-C	1	4.5 to 36	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-D	1	4.5 to 36	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-E	1	4.5 to 36	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-F	1	4.5 to 36	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-G	1	4.5 to 36	5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}

N - New Product S - Sampling Product

Buck | Buck (24V < V_{IN} Max ≤ 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD72401A-H	1	6.5 to 36	12	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-A	2	4.5 to 36	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-B	2	4.5 to 36	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-C	2	4.5 to 36	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-D	2	4.5 to 36	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-E	2	4.5 to 36	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-F	2	4.5 to 36	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-G	2	6.5 to 36	5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZS91202A	2.5	7 to 36	5	-	-	-	Int	OCP, OTP	SiP-4 (13x45)	USB charger, efficiency up to 95%
mEZDPD3603A-0001	3	4.5 to 36	3.3	-	-	✓	Int	OTP, SCP	SiP-12 (23x16)	Programmable DC/DC power supply
mEZDPD3603AS	3	4.5 to 36	0.6 to 12	-	✓	✓	Int	OTP, SCP	DIP (16x23)	Prog. DC/DC power supply with PMBus
mEZDPD4506A-0001	6	4 to 45	3.3	-	-	✓	Int	OCP, OTP, OVP/UVP, SCP	DIP (18.8x18.8x8.54)	Programmable DC/DC power supply
mEZDPD4506AS	6	4 to 45	0.6 to 22	-	✓	✓	Int	OCP, OTP, OVP/UVP, SCP	LGA (10x10)	Prog. DC/DC power supply with PMBus
mEZDPD1620A-0001	20	4 to 16	1.8	-	-	✓	Int	OCP, OTP, OVP/UVP, SCP	DIP (16x23x14.14)	Programmable DC/DC power supply

mEZ POWER MODULES | POWER MODULES

Buck | Buck (V_{IN} Max > 36V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	mEZDPD1620AS	20	4 to 16	0.6 to 5.5	-	✓	✓	Int	OCP, OTP, OVP/UVP, SCP	DIP (16x23)	Peak 25A, DC/DC power supply with PMBus
	mEZD74800A-A	0.3	4.5 to 75	3.3	-	-	-	Int	OCP, OTP, SCP with Hiccup	SiP-3 (10x20)	Power supply
	mEZD74800A-B	0.3	4.5 to 75	5	-	-	-	Int	OCP, OTP, SCP with Hiccup	SiP-3 (10x20)	Power supply
N	**mEZD74003L-ADJ**	3	5 to 40	1.23 to 15	-	-	-	Int	UVLO, OCP, OTP, OVP	LGA (11x15)	Sync, adj. V_{OUT}, integrated inductor
N	**mEZD94003A-ADJ**	3	5 to 40	1.23 to 15	-	-	-	Int	UVLO, OCP, OTP, OVP	LGA (11x15)	Sync, adj. V_{OUT}, power supply

PoE

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	mEZS84801A	1	37 to 57	12	-	-	✓	Int	OCP, OTP, OVP	SiP-20 (45x39)	12W, IEEE 802.3af-compliant, PoE-powered device
S	**mEZS84802A-A**	2	42 to 57	12	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, POE
S	**mEZS84802A-B**	2	42 to 57	12	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, POE
S	**mEZS84802A-C**	2	37 to 57	5	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, POE

Step-Up Boost & Buck-Boost Modules | POWER MODULES

	Part Number	Converter Type	I_{OUT} (A)	V_{IN} (V)	I_Q (mA)	Power Good	PMBus/I²C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
S	**MPM4710**	Buck-Boost	0.6	1.8 to 5.5	0.029	-	-	Int	✓	QFN-13 (2.2x2.6x1.6)	High efficiency, 1MHz f_{SW}, internal compensation
S	**MPM4330**	Boost	3	3.0 to 22	4	✓	✓	Int	✓	LGA-51 (8x14)	High efficiency
S	**MPM4730**	Buck-Boost	5	3.0 to 22	4	✓	✓	Int	✓	LGA-51 (8x14)	High efficiency

N - New Product S - Sampling Product

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators | 5V Synchronous Buck

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPM3805A-AEC1	2.6	6	0.6	1.2	485	3500	120/70	-	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
	MPM3805B-AEC1	2.5	6	0.6	2.1	485	3500	100/60	1.2	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
	MPQ2171-AEC1	2.5	5.5	1	4	520	2600	90/50	-	Int	-	✓	-	✓	✓	-	-	TSOT23-8	Output discharge
N	**MPQ2177-AEC1**	2.5	5.5	1	2.5	460	2400	90/50	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
S	**MPQ2177A-AEC1**	2.5	5.5	1	2.5	21	2400	90/50	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPM3810A-AEC1	2.6	6	1.2	2.1	485	3500	110/60	-	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
	MPQ2172-AEC1	2.5	5.5	2	4.5	520	2600	80/45	-	Int	-	✓	-	✓	✓	-	-	TSOT23-8	Output discharge
N	**MPQ2178-AEC1**	2.5	5.5	2	3.5	460	2400	80/40	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
N	**MPQ2178A-AEC1**	2.5	5.5	2	3.5	21	2400	80/40	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
S	**MPQ2123-AEC1**	2.7	6	2	6.3	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2143-AEC1	2.5	5.5	3	4.8	40	1200	65/40	-	Int	-	-	✓	✓	✓	-	-	TSOT23-8	Output discharge
N	**MPQ2179-AEC1**	2.5	5.5	3	5	460	2400	65/35	-	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
N	**MPQ2179A-AEC1**	2.5	5.5	3	5	21	2400	65/35	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPQ2124-AEC1	2.7	6	3	6.3	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2167-AEC1	2.7	6	4	6.7	42	300 to 2200	35/25	-	Ext	-	✓	✓	-	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2167B-AEC1	2.7	6	4	6.7	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
S	**MPQ2180-AEC1**	2.7	6	6	12.7	285	850 to 2200	38/21	0.8, 1	Int	-	✓	✓	-	-	-	-	QFN-14 (2.5x3)	-

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 5V Synchronous Buck

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
N	**MPQ8847A-AEC1**	2.7	6	6	12.7	285	850 to 2200	22/40	-	Int	-	✓	✓	-	-	-	-	QFN-14 (2.5x3)	-
	MPQ2167A-AEC1	2.7	6	6	9	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-14 (3x3)	MPQ2167 scalable series
	MPQ2169A-AEC1	2.7	6	2.8 (Dual)	4	65	350 to 3000	60/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual output, 2.8A total with 2A single-channel max
S	**MPQ2169B-AEC1**	2.7	6	2.8 (Dual)	4	65	350 to 3000	60/25	-	Ext	✓	✓	-	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual output, 2.8A total with 2A single-channel max, CCM only
	MPQ2166A-AEC1	2.7	6	4 (Dual)	4.5	65	350 to 3000	55/20	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual output, 4A total with 3A single-channel max
S	**MPQ2166B-AEC1**	2.7	6	4 (Dual)	4.5	65	350 to 3000	55/20	-	Ext	✓	✓	-	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual output, 4A total with 3A single-channel max, CCM only

Buck Regulators — 24V Synchronous Buck

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPQ4409-AEC1	4	24	0.9	1	600	0.807	450 to 2200	90/50	-	Int	✓	✓	-	-	✓	✓	QFN-13 (2.5x3)	-
S	**MPQ3520-AEC1**	3	22	1	2.9	463	0.6	2200	260/120	-	Int	-	✓	-	-	✓	✓	QFN-8 (2x2)	-

Buck Regulators — 40V to 50V Synchronous Buck with Frequency Spread Spectrum

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Zero Delay PWM	Wettable Flank QFN Option	Package	Notes
S	**MPQ4320-AEC1**	3.3	42	0.5	1.2	20	0.8	350 to 2500	65/45	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact

N - New Product S - Sampling Product

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 40V to 50V Synchronous Buck with Frequency Spread Spectrum

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Zero Delay PWM	Wettable Flank QFN Option	Package	Notes
S	**MPQ4300-AEC1**	3.5	48	0.5	2	-	-	470	95/50	3.3, 5	Int	✓	✓	-	✓	-	-	QFN-16 (3x3)	MPQ4300 series
S	**MPQ4321-AEC1**	3.3	42	1	2	20	0.8	350 to 2500	65/45	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact
S	**MPQ4301-AEC1**	3.5	48	1	3	-	-	470	95/50	3.3, 5	Int	✓	✓	-	✓	-	-	QFN-16 (3x3)	MPQ4300 series
S	**MPQ4345-AEC1**	3.3	42	2	5.8	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	MPQ4345 series, ultra-low I_Q
S	**MPQ4322-AEC1**	3.3	42	2	3.4	20	0.8	350 to 2500	65/45	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact
S	**MPQ4312-AEC1**	3.3	50	2	5.5	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
S	**MPQ4346-AEC1**	3.3	42	3	5.8	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	MPQ4345 series, ultra-low I_Q
N	**MPQ4323-AEC1**	3.3	42	3	5.8	20	0.8	350 to 2500	65/45	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact
S	**MPQ4323M-AEC1**	3.3	42	3	5.8	20	0.8	350 to 2500	65/45	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (3.5x3.5)	MPQ4320 series, ultra-compact, int. input capacitors
	MPQ4313-AEC1	3.3	50	3	5.5	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
S	**MPQ4340-AEC1**	3.3	42	4	7.7	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase, ultra-low I_Q
S	**MPQ4347-AEC1**	3.3	42	4	7.7	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	MPQ4345 series, ultra-low I_Q
N	**MPQ4314-AEC1**	3.3	50	4	8	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
S	**MPQ4341-AEC1**	3.3	42	5	7.7	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase, ultra-low I_Q
S	**MPQ4348-AEC1**	3.3	42	5	7.7	2.5	-	350 to 2500	55/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	MPQ4345 series, ultra-low I_Q
N	**MPQ4315-AEC1**	3.3	50	5	8	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 40V to 50V Synchronous Buck with Frequency Spread Spectrum

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Zero Delay PWM	Wettable Flank QFN Option	Package	Notes
N	**MPQ4316-AEC1**	3.3	50	6	13	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
N	**MPQ4436A-AEC1**	3.3	50	6	13	18	0.815	420	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	Multi-phase, low I_Q
N	**MPQ4480-AEC1**	4.2	40	6	17/22	1000	1	235 to 2200	20/15	-	Int	✓	✓	-	-	-	✓	QFN25 (4x5)	Adjustable line drop compensation
N	**MPQ4317-AEC1**	3.3	50	7	13	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series

Buck Regulators — 40V to 50V Synchronous Buck without Frequency Spread Spectrum

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPM3509B-AEC1	4	40	0.6	5	700	0.807	400	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/ VCC capacitors
	MPQ9846-AEC1	3.3	40	0.6	1.2	14	0.8	350 to 2500	125/115	3.3, 5	Ext	-	-	✓	✓	✓	✓	QFN-16 (3x4)	Compact, low I_Q
N	**MPQ4418-AEC1**	4	40	0.6	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
	MPM3509-AEC1	4	40	0.9	3	600	0.807	2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/ VCC capacitors
N	**MPQ4419-AEC1**	4	40	1	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
	MPQ4431-AEC1	3.3	40	1	2.5	10	0.8	350 to 2500	90/80	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_Q, low-dropout mode
	MPQ9840-AEC1	3.3	40	1	5.6	14	0.8	350 to 2500	90/40	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_Q, low-dropout mode
	MPM3515-AEC1	4	40	1.5	4	600	0.807	2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/ VCC capacitors

N - New Product

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 40V to 50V Synchronous Buck without Frequency Spread Spectrum

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
MPQ4415M-AEC1	4	40	1.5	4	600	0.8	450 to 2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-13 (2.5x3)	Integrated input capacitor
MPQ4415A-AEC1	4	40	1.5	4	600	0.8	450 to 2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-13 (2.5x3)	-
MPQ4420H-AEC1	4	40	2	4.2	500	0.792	410	90/55	-	Int	✓	-	-	✓	✓	-	TSOT23-8	MPQ4420 series
MPQ4420A-AEC1	4	40	2	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
MPQ4432-AEC1	3.3	40	2.2	5.2	10	0.8	350 to 2500	90/40	3.8, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_Q, low-dropout mode
MPQ9841-AEC1	3.3	40	2.2	2.5	14	0.8	350 to 2500	90/80	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_Q, low-dropout mode
MPQ4433-AEC1	3.3	40	3	5.8	10	0.8	350 to 2500	90/40	5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_Q, low-dropout mode
MPQ9842-AEC1	3.3	40	3	5	14	0.8	350 to 2500	90/40	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_Q, low-dropout mode
MPQ4423H-AEC1	4	40	3	4.4	500	0.792	410	85/55	-	Int	✓	-	-	✓	✓	✓	QFN-8 (3x3)	-
MPQ4423A-AEC1	4	40	3	5.7	600	0.792	410	85/55	-	Int	✓	-	✓	-	✓	-	QFN-8 (3x3)	-
MPQ4430-AEC1	3.3	40	3.5	5.8	10	0.8	350 to 2500	90/40	3.8, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_Q, low-dropout mode
MPQ9843-AEC1	3.3	40	3.5	5.6	14	0.8	350 to 2500	125/55	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_Q, low-dropout mode
MPQ4473-AEC1	4.5	40	3.5	6.6	500	0.815	200 to 1000	40/20	-	Ext	-	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4470-AEC1	4.5	40	5	8	500	0.815	100 to 1000	40/20	-	Ext	-	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4470A-AEC1	4.5	40	5	8	500	0.815	100 to 1000	40/20	-	Ext	-	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4436-AEC1	3.3	50	6	13	18	0.815	420	48/20	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-20 (4x4)	Multi-phase, low I_Q
N **MPQ4436B-AEC1**	3.3	50	6	13	18	0.815	2200	48/20	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-20 (4x4)	Multi-phase, low I_Q

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 60V to 80V Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	Hysteretic Control	Fixed Frequency	Package	Notes
MPQ4569-AEC1	4.5	80	0.3	0.72	20	1	-	1200/ 450	-	Ext	-	-	✓	✓	-	QFN-10 (3x3), SOIC-8E	Prog. soft start
MPQ4569A-AEC1	4.5	80	0.3	0.72	20	1	-	1200/ 500	-	Ext	-	-	✓	✓	-	QFN-10 (3x3)	Prog. soft start, default enable on
MPQ2420-AEC1	4.5	80	0.3	0.72	20	1	-	1200/ 450	-	Ext	-	-	✓	✓	-	TSSOP-16EP	Int. separate windowed watchdog die
MPQ2420A-AEC1	4.5	80	0.3	0.72	20	1	-	1200/ 450	-	Ext	-	-	✓	✓	-	TSSOP-16EP	Int. separate windowed watchdog die, default enable on
(S) **MPQ4576-AEC1**	4.5	65	0.6	1.95	40	0.8	200 to 2200	250/ 45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q, compact
MPQ4571-AEC1	4.5	65	1	1.95	40	0.8	200 to 2200	250/ 45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q, compact
MPQ4572-AEC1	4.5	65	2	3.5	40	0.8	200 to 2200	250/ 45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q, compact
(N) **MPQ4573-AEC1**	4.5	65	2.5	3.5	40	0.8	200 to 2200	250/ 45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q, compact
MPQ4570-AEC1	4.5	60	3	5.7	520	1	100 to 1000	90/ 70	-	Ext	✓	-	✓	-	✓	TSSOP-20EP	Prog. soft-start time, external sync

Buck Regulators — >100V Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	External Sync	FCCM	AAM	Hysteretic Control	Package	Notes
MPQ4590-AEC1	7.5	700	0.4	0.66	200	2.55	-	13.5	Int	-	✓	-	✓	SOIC-8	Primary-side CV control, supports buck, buck-boost, boost, and flyback topologies

Buck Regulators — Buck Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (µA)	I_{SD} (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
MPQ2908A-AEC1	4	60	750	0.5	0.8	100 to 1000	-	Ext	✓	✓	✓	✓	✓	TSSOP-20EP, QFN-20 (3x4)	High max duty cycle (99.5%)
MPQ2918-AEC1	4	40	750	0.5	0.8	100 to 1000	-	Ext	✓	✓	✓	✓	✓	TSSOP-20EP, QFN-20 (3x4)	High max duty cycle (99.5%)

(N) - New Product (S) - Sampling Product

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators | Non-Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions	Soft Start	External Sync	FCCM	Fixed Frequency	Package	Notes
MPQ2459-AEC1	4.5	60	0.5	1.25	730	0.812	480	1000	-	Int	-	✓	✓	TSOT23-6	Superior light-load efficiency
MPQ2451-AEC1	3.3	40	0.6	1	130	0.794	2000	500	3.3, 5	Int	-	-	✓	TSOT23-6L, QFN-6L	Internal comp. and SS
MPQ2454-AEC1	3.3	40	0.6	1.8	60	0.8	350 to 2300	200	-	Ext	✓	-	✓	QFN-10 (3x3), MSOP-10 EP	Superior light-load efficiency
MPQ4558-AEC1	3.8	60	1	1.9	140	0.8	200 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4559-AEC1	3.8	60	1.5	2.3	140	0.8	200 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4561-AEC1	3.8	60	1.5	2.5	140	0.795	250 to 2000	300	-	Ext	-	-	✓	QFN-10 (3x3)	Superior light-load efficiency
MPQ4560-AEC1	3.8	60	2	3.2	140	0.797	250 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4462-AEC1	3.8	40	3.5	5.5	120	0.792	250 to 4000	150	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4467-AEC1	3.3	40	2.5	5.8	10	0.8	350 to 2500	90	-	Ext	✓	-	✓	QFN-16 (3x4)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ4468-AEC1	3.3	40	3.5	5.8	10	0.8	350 to 2500	90	-	Ext	✓	-	✓	QFN-16 (3x4)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ4469-AEC1	3.3	40	5	7.7	10	0.8	350 to 2500	110	-	Ext	✓	-	✓	QFN-20 (4x5)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ2362-AEC1	4.75	25	Dual 2	3.4	2000	1.222	380	180	-	Int	✓	✓	✓	TSSOP-20	Dual output

BUCK-BOOST REGULATORS | AUTOMOTIVE

Buck-Boost Converters

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	I_{OUT} (Typ) (A)	I_Q (Typ) (µA)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Interface	Spread Spectrum	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
N	**MPQ8873-xxxx-AEC1**	2.2	36	0.5 to 30	3	180	200 to 1000	2x 10/25	I²C	✓	✓	✓	QFN-34 (4x5)	20W OTP-prog. 4-switch converter with advanced protection
N	**MPQ8875A-xxxx-AEC1**	2.2	36	0.5 to 30	5	180	200 to 1000	2x 10/25	I²C	✓	✓	✓	QFN-34 (4x5)	30W OTP-prog. 4-switch converter with advanced protection

BOOST REGULATORS | AUTOMOTIVE

Boost Regulators — Synchronous Boost

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (µA)	I_{SD} (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	Gate Drive (A)	Soft Start	Sync	OVP	Wettable Flank QFN Option	Package	Notes
	MPQ3410-AEC1	1.8	6	6	1.3	360	1.19	550	530/300	-	✓	-	TSOT23-5	Output disconnect
S	**MPQ3413-AEC1**	1.8	3.6	5	3.6	8	-	2.2	80/70	-	✓	-	TSOT23-5	-
S	**MPQ3414B-AEC1**	2.8	3.6	5	3.6	8	-	2.2	80/70	5	✓	-	TSOT23-5	-
	MPQ3428A-AEC1	3	20	22	25	110	1.225	600	18	-	✓	-	QFN-22 (3x4)	Input disconnect function, external high-side gate drive
	MPQ3431A-AEC1	0.8	13	16	21	25	1.0	450	6/9.5	-	✓	✓	QFN-13 (3x4)	Prog. input current limit, supports 40W peak power load from 3.3V, selectable PSM and FCCM, adaptive COT
S	**MPQ3431C-AEC1**	0.8	13	16	Adj	25	1.0	450	6/9.5	-	✓	✓	QFN-13 (3x4)	-
S	**MPQ3432-AEC1**	0.8	13	16	10	25	1.0	600	6/9.5	-	✓	✓	QFN-13 (3x4)	-

Boost Regulators — Boost Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (µA)	I_{SD} (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	Gate Drive (A)	Soft Start	Sync	OVP	Wettable Flank QFN Option	Package	Notes
	MPQ3910A-AEC1	5	35	288	1	1.237	30 to 400	1	Ext	✓	✓	-	MSOP-10	Peak current mode, light-load operation, supports >10A, OVP, SCP, OTP

N - New Product S - Sampling Product

BUCK-BOOST REGULATORS | AUTOMOTIVE

Boost Regulators — Non-Synchronous Boost

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	OCP	Wettable Flank QFN Option	Package	Notes
MPQ3426-AEC1	3.2	45	35	8.5	650	1.225	300 to 2000	90	Ext	✓	✓	QFN-14 (3x4)	Programmable UVLO and EN hysteresis

PMICS | AUTOMOTIVE

PMICs — >18V PMIC

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	f_{SW} (kHz)	ADC	Frequency Spread Spectrum	MPSafe (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
S	**MPQ70330FS-xxxx-AEC1**	4.5	42	3	2 Buck, 1 Boost	Buck: 2/1.5 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-34 (6x6)	Targets ASIL-D, independent votlage supervisor, power FET leakage monitoring, extensive protections, batt. failure pre-warning
S	**MPQ7901-xxxx-AEC1**	4.5	42	3	2 Buck, 1 Boost	Buck: 2/1.5 Boost: 0.25	2.5	-	✓	-	SPI	✓	QFN-34 (6x6)	Digitally prog. extensive protections
S	**MPQ7900-xxxx-AEC1**	4	40w	3	2 Buck, 1 LDO	Buck: 1.5/0.7 LDO: 0.3	2.3	-	✓	-	I²C	✓	QFN-16 (2.5x3.5)	Digitally prog. extensive protections, COT
S	**MPQ7900L-xxxx-AEC1**	4	18	3	2 Buck, 1 LDO	Buck: 1.5/0.7 LDO: 0.3	2.3	-	✓	-	I²C	✓	QFN-16 (2.5x3.5)	Digitally prog. extensive protections, COT
S	**MPQ70240FS-xxxx-AEC1**	5	18	4	3 Buck, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	-	✓	✓	I²C	✓	QFN-34 (2.5x3.5)	Targets ASIL-B, ideal for camera modules
S	**MPQ7928-xxxx-AEC1**	5	18	4	3 Buck, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	-	✓	-	I²C	✓	QFN-34 (2.5x3.5)	Ultra-compact board layout
S	**MPQ2026-xxxx-AEC1**	3	40	3	2 LDO, 1 Pre-Boost	LDO: 0.3/0.3 Pre-Boost: 2.5	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V_{OUT}
S	**MPQ2024-xxxx-AEC1**	3	40	2	2 LDO	LDO: 0.3/0.3	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Digitally prog. V_{OUT}
S	**MPQ2022-xxxx-AEC1**	3	40	2	1 LDO, 1 Pre-Boost	LDO: 0.3 Pre-Boost: 2.5	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V_{OUT}

PMICs — 5V PMIC

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	f_{SW} (kHz)	Adj Power Sequencing	Multi-Phase Outputs	MPSafe (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	**MPQ7920-xxxx-AEC1**	2.7	5.5	9	4 Buck, 5 LDO	Buck: 4.5/4/2.5/2 LDO: 0.3 (4x)/0.01	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Digitally prog. extensive protections, COT

LINEAR REGULATORS | AUTOMOTIVE

5V LDO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	I_Q (Typ) (µA)	Enable Pin	Adjustable Option (V)	Fixed Output Versions	Power Good	Package	Notes
MPQ20056-AEC1	2.5	5.5	250	0.0003	63	0.8	10	✓	0.8 to 5	1.8, 2.5, 3.3	-	QFN-8 (2x2), TSOT23-5	-
MPQ8904-AEC1	2.5	6.5	500	0.005	26	0.496	7	✓	0.5 to 5	-	✓	QFN-8 (2x3)	-
MPQ20051-AEC1	2.5	5.5	1000	0.0003	63	0.8	-	✓	0.8 to 5	-	-	QFN-8 (3x3)	-

40V LDO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	I_Q (Typ) (µA)	Enable Pin	Adjustable Option (V)	Fixed Output Versions	Power Good	Package	Notes
MPQ2016-AEC1	4	40	30	0.003	65	1.23	12	✓	1.2 to 24	-	-	QFN-8 (2x3)	-
MPQ2013AGJE-C672-AEC1	2.5	40	100	0.005	41	1.215	3.2	✓	1.215 to 15	3.3, 2.5, 5	-	TSOT23-4	-
MPQ2013A-AEC1	2.5	40	150	0.005	41	1.215	3.3	✓	1.215 to15	QFN-8: 3.3, 2.5, 5, 1.8 QFN-6: 3.3, 5	-	QFN-6 (2x2), QFN-8 (3x3)	-
MPQ2019-AEC1	3	40	300	0.04	45	1.25	10	✓	1.2 to 15	3.3, 5	✓	SOIC-8EP	-
MPQ2029-AEC1	3	40	450	0.04	45	1.25	10	✓	1.2 to 15	-	✓	SOIC-8EP	-

DDR MEMORY POWER | AUTOMOTIVE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Accuracy for VTT, VTT_{REF} (mV)	Driver (V)	Package	Notes
MPQ20073-AEC1	1.3	6	2	30	3.3	MSOP-8E	DDR2/3 termination regulator

LED LIGHTING | AUTOMOTIVE

Backlight

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
MPQ3386-AEC1	4.5	30	Boost	6	30	625 or 1250	PWM, Analog	Open, Short	3%	-	-	QFN-24 (4x4)	3% current-matching accuracy
MPQ3387L-AEC1	3	30	Boost	6	45	500 or 1250	PWM, Mix	Open, Short	3%	-	-	QFN-24 (4x4)	3% current-matching accuracy

N - New Product S - Sampling Product

LED LIGHTING | AUTOMOTIVE

Backlight

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
N	**MPQ3362-AEC1**	3	42	Boost	1	-	200 to 2200	PWM, Analog	Open, Short	-	-	-	TSOT23-8	4A current limit, low $R_{DS(ON)}$, soft start
N	**MPQ3364-AEC1**	3.5	42	Boost	4	150	200 to 2200	PWM, Analog, Mix	Open, Short	2.5%	I²C	-	QFN-24 (4x4)	Three selectable IC addresses
	MPQ3367-AEC1	3.5	42	Boost	6	150	200 to 2200	PWM, Analog, Mix	Open, Short	2.5%	I²C	-	QFN-24 (4x4), TSSOP-28EP	I²C, spread spectrum, thermal derating, fault pin, rich protection features
N	**MPQ3367A-AEC1**	3.5	42	Boost	6	150	200 to 2200	PWM, Analog, Mix	Open, Short	2.5%	I²C	-	QFN-24 (4x4)	MPQ3367-AEC1 features, three prog. addresses
	MPQ3369-AEC1	3.5	42	Boost	6	100	200 to 2200	PWM, Analog, Mix	Open, Short	2.5%	I²C	-	QFN-24 (4x4), TSSOP-28EP	Spread spectrum, thermal derating, fault pin, rich protection features

Tell-Tale

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
N	**MPQ3324-AEC1**	4	18	Linear	8	100	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital configuration
N	**MPQ3326-AEC1**	4	18	Linear	16	50	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital configuration
S	**MPQ3326A-AEC1**	4	18	Linear	16	80	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital configuration

Illumination & Signaling LED Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Topology	Max Continuous Current (A)	Current Limit (Typ) (A)	$R_{DS(ON)}$ (mΩ)	Dimming Modes	f_{SW} (kHz)	LED Protection	Spread Spectrum	Fault Pin	Wettable Flank QFN Option	Package	Notes
MPQ2489-AEC1	6	55	Low-Side Buck	1.4	Adj	500	PWM, Analog	200 to 600	Open, Short	-	-	-	QFN-6 (3x3)	-
MPQ2483A-AEC1	4.5	55	Buck, Buck-Boost	2.5	3	280	PWM, Analog	250 to 1350	Open, Short	-	-	-	QFN-10 (3x3), SOIC-14	Output short-circuit protection
MPQ24833-B-AEC1	4.5	55	Buck, Buck-Boost, Boost	3	6	150	PWM, Analog	420	Open, Short	-	-	-	SOIC-8E	Output short-circuit protection

LED LIGHTING | AUTOMOTIVE

Illumination & Signaling LED Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Topology	Max Continuous Current (A)	Current Limit (Typ) (A)	$R_{DS(ON)}$ (mΩ)	Dimming Modes	f_{SW} (kHz)	LED Protection	Spread Spectrum	Fault Pin	Wettable Flank QFN Option	Package	Notes
	MPM6010-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-17 (3x5x1.6)	Module with int. inductor and BST/VCC capacitors, sync operation, output OCP
	MPQ4425A-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Synchronous operation, output OCP
	MPQ4425B-AEC1	4	40	Buck	1.5	4	85/50	PWM	410	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Synchronous operation, output OCP
S	**MPQ4425C-AEC1**	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Alternative fault indicator behavior at EN off and soft-start time
N	**MPQ7200-AEC1**	6	42	Buck, Buck-Boost	3 Buck/1.2A Buck-Boost	6	44/40	PWM	2300 Buck, 1500 Buck-Boost	Open, Short	✓	✓	✓	QFN-19 (3x4)	Int. current sense, prog. 1.2A buck-boost or 3A buck, fast transient operation, thermal derating, two-step dimming, ext. NTC
N	**MPQ7200A-AEC1**	6	42	Buck, Buck-Boost	3 Buck/1.2A Buck-Boost	6	44/40	PWM	410	Open, Short	✓	✓	✓	QFN-19 (3x4)	Int. current sense, prog. 1.2A buck-boost or 3A buck, fast transient operation, thermal derating, two-step dimming, ext. NTC
N	**MPQ2484-AEC1**	4.5	45	Buck, Boost, Buck-Boost	Contro-ller	Adj	-	PWM, Analog	100 to 2200	Open, Short	✓	-	-	TSSOP-28EP	Cycle-by-cycle current limit, output OVP, open LED protection, fault flag output

Dynamic Lighting & Matrix Dimming

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Spread Spectrum	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
	MPQ7220-AEC1	3.5	40	Boost + Linear	6	100	200, 400, 1000, 2200	PWM, Analog	Open, Short	✓	2.5%	-	-	QFN-24 (4x4), TSSOP-28EP	External sync SW function disconnects V_{OUT} from V_{IN}, cycle-by-cycle current limit
S	**MPQ7221-AEC1**	4	18	Linear	16	80	-	PWM, Analog	Open, Short	-	2%	I^2C	✓	QFN-24 (4x4)	Six-bit analog dimming per channel, 12-bit PWM dimming per channel, refresh signal output

N - New Product S - Sampling Product

LED LIGHTING | AUTOMOTIVE

IR (Infrared) Led Drivers for Driver Monitoring Systems

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Spread Spectrum	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
N	**MPQ7230-AEC1**	6	44	Buck, Buck-Boost	1	4 (peak)	410	PWM	Open, Short	✓	5%	-	✓	QFN-19 (3x4)	Fast transient response
S	**MPQ7235-AEC1**	4	40	Buck	1	3 (peak)	2200	PWM	Open, Short	-	5%	-	✓	QFN-13 (2.5x3)	10Hz to 2kHz PWM dimming frequency, compatible with 30FPS/60FPS/120FPS dimming

MONITORING & SUPERVISION | AUTOMOTIVE

Voltage Supervisors (Power Good)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Short Window Mode	Long Window Mode	Disable Input	I_Q (Typ) (µA)	Package	Notes
MPQ6400-33-AEC1	1.8	5.5	3.3	±1.0	1.6	2ms to 10s	✓	QFN-6 (2x2)	Capacitor-set delay, reset output to MCU
MPQ6400-01-AEC1	1.8	5.5	Adj	±1.0	1.6	2ms to 10s	✓	QFN-6 (2x2)	-

Watchdog Supervisors

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Short Window Mode	Long Window Mode	Disable Input	I_Q (Typ) (µA)	Package	Notes
MPQ6411-AEC1	4.5	5.5	4.5	✓	✓	✓	16	SOIC-8E	Reset output to MCU
MPQ6411-33-AEC1	3	3.6	2.9	✓	✓	✓	10	SOIC-8E	Reset output to MCU

Sequencers

	Part Number	# of Channels	V_{IN} (Min) (V)	V_{IN} (Max) (V)	32kHz Crystal Oscillator Driver	RTC	System Reset Signal	Interface	Package	Notes
S	**MPQ7960-xxxx-AEC1**	12	2.7	5.5	✓	✓	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7961-xxxx-AEC1**	10	2.7	5.5	✓	✓	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7962-xxxx-AEC1**	8	2.7	5.5	✓	✓	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7963-xxxx-AEC1**	6	2.7	5.5	✓	✓	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7965-xxxx-AEC1**	12	2.7	5.5	-	-	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7966-xxxx-AEC1**	10	2.7	5.5	-	-	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7967-xxxx-AEC1**	8	2.7	5.5	-	-	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.
S	**MPQ7968-xxxx-AEC1**	6	2.7	5.5	-	-	✓	I^2C	QFN-24 (4x4)	Time-slot based sequencing, digitally prog.

MONITORING & SUPERVISION | AUTOMOTIVE

Current-Sense Monitors

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Output Mode Gain	Gain	I_Q (Typ) (µA)	PSRR (dB)	Bandwidth (kHz)	Package	Notes
N	**MPQ8112-AEC1**	2.7	60	Voltage	Fixed 50V/V	300	90	700	TSOT-23	-
N	**MPQ8112A-AEC1**	2.7	60	Current	Adj	300	90	700	TSOT-23	-
N	**MPQ8113-AEC1**	2.7	60	Voltage	Fixed 50V/V	300	90	700	TSOT-23	Reduced max V_{OUT}
N	**MPQ8113A-AEC1**	2.7	60	Current	Adj	300	90	700	TSOT-23	Reduced max V_{OUT}

USB & WIRELESS CHARGING | AUTOMOTIVE

USB PD Solutions — Buck-Boost for USB PD

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Supports USB PD	Battery Short Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	I^2C Interface	EN Shutdown Discharge	Load-Shedding Send Alert	Package	Notes
	MPQ4214-AEC1 (Controller)	4	45	-	-	Selectable	✓	✓	✓	-	-	✓	✓	-	QFN-27 (5x5)	Sync, FCCM
	MPQ4210-AEC1 (Controller)	4	45	-	-	Selectable	✓	✓	✓	-	-	✓	✓	-	QFN-27 (5x5)	Output current monitoring
S	**MPQ4262-AEC1 (hybrid)**	3.6	40	5	0.13	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-20 (3x5)	-

USB PD Solutions — Buck for USB PD

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Supports USB PD	Battery Short Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	I^2C Interface	EN Shutdown Discharge	Load-Shedding Send Alert	Package	Notes
N	**MPQ4272-AEC1(Dual)**	1	40	6 2x (3A)	0.3	Selectable	✓	✓	✓	-	✓	✓	✓	P	QFN-21 (4x5)	V_{OUT} range with 12.6mV resolution, accurate adj. CC I_{OUT} limit 50mA/step via I^2C

USB PD Solutions — Controllers for USB PD

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0QC3.0	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	USB Discharge	Fault Indication	Client Mode	Wettable Flank QFN Option	Package	Notes
N	**MPQ5031-AEC1 (PD)**	4.5	5.5	Single	5	0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	-	-	✓	QFN-20 (4x4)	USB PD 3.0+ PPS controller, meets PowerShare specs

N - New Product S - Sampling Product

USB & WIRELESS CHARGING | AUTOMOTIVE

USB PD Solutions

All-In-One USB PD Solutions (Integrated Buck-Boost & PD Controllers)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0/QC3.0, Huawei FCP Mode	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	USB Discharge	Package	Notes
S	**MPQ4242-AEC1**	4	40	Single	3	0.1	Selectable	✓	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-22 (4x5)	Supports PD3.0/ QC4+ BC1.2/QC3+FCP protocols

All-In-One USB Type-C/A Charging-Only Port Solutions

Dual USB Type-C/A Charging Port Solutions (Buck with Integrated CLS, Protocol Detection)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Frequency Spread Spectrum	Internal USB Switch	Line Drop Compensation	USB Discharge	Package	Notes
	MPQ4487A-AEC1	6	40	Dual	3 (x2)	1	Selectable	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	Meets latest MFI3.3 specs
N	**MPQ4488B-AEC1**	6	40	Dual	3 (x2)	1	Adjustable	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	Meets latest MFI3.3 specs
	MPQ4488T-AEC1	6	40	Dual	3 (x2)	1	Adjustable	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	135°C load-shedding temp
	MPQ4253-AEC1	6	40	Dual	3 (x2)	0.054	Selectable	✓	✓	✓	✓	✓	✓ (Type-C)	-	✓	✓	✓	✓	QFN-26 (5x5)	Low I_Q
N	**MPQ4276-AEC1**	6	40	Dual	3 (x2)	0.8	Adjustable	-	-	-	✓	-	✓	-	✓	✓	✓	✓	QFN-26 (5x5)	USB 1/2 fault indication, PFM mode, EN and FAULT pins for USB 1/2
N	**MPQ4253B-AEC1**	6	40	Dual	3 (x2)	0.054	Selectable	✓	✓	✓	✓	✓	✓ (Type-C)	-	✓	✓	✓	✓	QFN-26 (5x5)	MFI OCP current > 4.8A

USB & WIRELESS CHARGING | AUTOMOTIVE

All-In-One USB Type-C/A Charging-Only Port Solutions

Single USB Type-C/A Charging Port Solutions (Buck with Integrated CLS, Protocol Detection)

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0	QC3.0	Type-C DFP (w/o PD)
MPQ4475-E-AEC1	7	40	Single	2.5	1.6	Selectable	✓	✓	✓	-	-	-
MPQ4491-AEC1	7	40	Single	2.5	1.6	Selectable	✓	✓	✓	-	-	-
MPQ4481-AEC1	6	40	Single	3	0.7	Selectable	✓	✓	✓	-	-	✓
MPQ4481-FD-AEC1	6	40	Single	3	0.7	Selectable	✓	✓	✓	-	-	✓
MPQ4481-FD2-AEC1	6	40	Single	3	0.7	Selectable	✓	✓	✓	-	-	✓
(N) **MPQ4228-AEC1**	4.2	40	Single	3	-	Selectable	✓	✓	✓	-	-	✓
(N) **MPQ4228-Q-AEC1**	4.2	40	Single	3	-	Selectable	✓	✓	✓	✓	✓	✓
MPQ4482-AEC1	4	40	Single	3	0.8	Selectable	✓	✓	✓	-	-	✓
MPQ4482-Q-AEC1	4	40	Single	3	0.8	Selectable	✓	✓	✓	✓	✓	✓

(N) - New Product

Type-A Mode	Load-Shedding	Battery Short Protection	Low-Dropout Mode	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	USB Discharge	Fault Indication	Wettable Flank QFN Option	Package	Notes
✓	-	-	-	✓	✓	✓	✓	✓	✓	-	QFN-25 (4x4)	Prog. line drop compensation
✓	-	-	-	-	✓	✓	✓	✓	-	-	QFN-25 (4x4)	Auto-detection, cable compensation
✓	✓	-	✓	-	✓	✓	-	✓	✓	-	QFN-26 (5x5)	EN and FAULT pins support Hub
✓	✓	-	✓	✓	✓	✓	-	✓	✓	-	QFN-26 (5x5)	EN and FAULT pins support Hub
✓	✓	-	✓	✓	✓	✓	-	✓	✓	-	QFN-26 (5x5)	EN and FAULT pins support Hub, prog. freq. and spread spectrum with 250kHz
✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	QFN-22 (4x4)	Type-C 5V/3A , DFP port
✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	QFN-22 (4x4)	Supports QC2.0/3.0
✓	✓	✓	-	-	✓	✓	-	✓	-	✓	QFN-22 (4x4)	3.55A/2.75A USB current limit with FCCM
✓	✓	✓	-	-	✓	✓	-	✓	-	✓	QFN-22 (4x4)	Accurate USB current limit with FCCM

USB & WIRELESS CHARGING | AUTOMOTIVE

All-In-One Data Port Products

Dual USB Type-C/A Charging Data Ports (Buck with Integrated CLS, USB 2.0 Data Switch, Protocol Detection)

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	USB Discharge	Package	Notes
MPQ4485-AEC1	6	40	Dual	3 (x2)	-	450	✓ (USB2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	FCCM

All-In-One Data Port Products

Single USB Type-C/A Charging Data Ports (Buck + Integrated CLS, USB 2.0 Data Switch, Protocol Detection)

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	BC 1.2 DCP	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)
(N) **MPQ4228-C-AEC1**	4.2	40	Single	3	-	Selectable	✓	-	-	-	✓
MPQ4483-AEC1	4.2	40	Single	3	-	Selectable	✓	✓	-	-	-
MPQ4483-FD-AEC1	4.2	40	Single	3	-	Adjustable	✓	✓	-	-	-

(N) - New Product (S) - Sampling Product

USB & WIRELESS CHARGING | AUTOMOTIVE

USB Type-C/A Port Controllers & Buck Products | Buck Only

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Battery Short Protection	Low-Dropout Mode	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	Wettable Flank QFN Option	Package	Notes
MPQ4480-AEC1	4.2	40	6	1	Selectable	✓	✓	✓ (Adj CC Limit)	✓	✓	✓	QFN-25 (4x5)	-
N **MPQ4423C-AEC1**	4	40	6	0.75	Selectable	-	-	-	-	✓	✓	QFN-16 (3x4)	-

Type-A Mode	Load-Shedding	Battery Short Protection	Low-Dropout Mode	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	USB Discharge	Wettable Flank QFN Option	Package	Notes
✓	✓	✓	-	✓	✓	✓ (Adj)	✓	✓	✓	QFN-22 (4x4)	Supports CDP mode
✓	-	✓	✓	-	✓ (Adj CC Limit)	✓ (Adj)	✓	-	✓	QFN-25 (4x5)	Supports BC1.2 DCP and CDP modes, bidirectional USB 2.0 high-speed data switch, LDO mode, 3.55A/3.75A CC I_{OUT} limit
✓	-	✓	✓	✓	✓ (Adj CC Limit)	✓ (Adj)	✓	-	✓	QFN-25 (4x5)	Supports BC1.2 DCP and CDP modes, bidirectional USB 2.0 high-speed data switch, LDO mode, 3.55A/3.75A CC I_{OUT} limit

USB & WIRELESS CHARGING | AUTOMOTIVE

USB Type-C/A Port Controllers & Buck Products

USB Type-C/A Charging Port Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max)	Dual/Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	BC 1.2 DCP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0/QC3.0	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	USB Discharge	Fault Indication	Client Mode	Wettable Flank QFN Option	Package	Notes
MPQ5029-AEC1	2.7	24	Single	3	0.155	-	✓	✓	✓	✓	✓	✓	✓	✓	✓ (Adj)	✓ (Adj)	✓	-	-	✓	QFN-14 (2x3)	NTC pin for thermal management, adj. OVP threshold, input OV shutdown protection
MPQ5029-C-AEC1	3	24	Single	3	0.175	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-14 (2x3)	-

MOTOR DRIVERS | AUTOMOTIVE

Half-Bridge Gate Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{SW} (Max) (V)	HS Gate Drive (Max) (V)	# of Channels	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-Off/On Delay (ns)	Wettable Flank Option	Package	Notes
S	**MPQ1922-AEC1**	4	15	100	15	1	3	4	20	20	20	✓	SOIC-8E, QFN-10 (4x4)	Gate driver, int. current-sense amp, 9ns to 15ns rise/fall (2.2nF load)
S	**MPQ1923-AEC1**	5	17	100	17	1	7	8	0.0072	0.0055	0.02	✓	QFN-10 (4x4), QFN-8 (4x4), SOIC-8	High-frequency gate driver
S	**MPQ6528-AEC1**	5	60	60	60	2	0.8	1	-	-	700	✓	QFN-28 (4x5)	H-bridge gate driver

Three-Phase Pre-Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{SW} (Max) (V)	HS Gate Drive (Max) (V)	# of Channels	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-Off/On Delay (ns)	Wettable Flank Option	Package	Notes
N	**MPQ6531-AEC1**	5	60	60	60	3	0.8	1	-	-	880	✓	QFN-28 (4x5)	For BLDC motors
S	**MPQ6532-AEC1**	5	60	60	60	3	0.8	1	-	-	880	✓	QFN-28 (4x5)	Hall inputs, for BLDC
S	**MPQ6533-AEC1**	6	40	-	-	3U	0.8	1	-	-	-	✓	QFN-32 (5x5)	Three-channel, automotive, LDO regulator, current-sense amp

N - New Product S - Sampling Product

MOTOR DRIVERS | AUTOMOTIVE

Half-Bridge Drivers (Integrated MOSFET)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (Typ)	Peak Output Current (A)	Rise Time (µs)	Fall Time (µs)	Turn-Off/On Delay (µs)	Open-Load Detection	Serial Interface	Wettable Flank Option	Package	Notes
	MPQ8039-AEC1	7.5	28	1	100	2.5	9	0.02	0.02	0.07	-	-	✓	SOIC-8E	General-purpose, high frequency, for audio amps wireless charging, etc.
S	MPQ6519-AEC1	3	28	2	130	370	5	0.2	0.2	-	✓	-	-	QFN-19 (4x4)	H-bridge current regulator
	MPQ6523-AEC1	7	40	3	1100	1.5	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4)	Independent half-bridge control, comprehensive protections, daisy-chainable, serial data interface up to 3MHz
	MPQ6524-AEC1	7	40	4	1100	1.5	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4)	Independent half-bridge control, comprehensive protections, daisy-chainable
	MPQ6526-AEC1	7	40	6	1100	1.8	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4), QFN-24 (5x5)	Independent half-bridge control, comprehensive protections, daisy-chainable
S	MPQ6527-AEC1	5.5	40	10	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz
N	MPQ6610-AEC1	4	55	1	220	1300	3	-	-	-	✓	-	-	TSOT23-8, SOIC-8	Power driver
S	MPQ6612A-AEC1	4	45	2	100	20	5	0.2	0.2	0.1	-	-	✓	QFN-18 (3x4)	H-bridge with current sense, IN1 and IN2 inputs
S	MPQ6615-AEC1	4.75	45	2	18	3000	12	-	-	-	-	-	✓	TQFN-26 (6x6)	H-bridge motor driver, int. current sense
S	MPQ6626-AEC1	5.5	40	6	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz
S	MPQ6628-AEC1	5.5	40	8	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz

Stepper Motor Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (Typ)	Peak Output Current (A)	Step Mode	Control Interface	Wettable Flank Option	Package	Notes
S	MPQ6600L-AEC1	4.5	35	2	365	1500	1.5	1, ½, ¼, ⅛	Indexer	✓	QFN-24 (4x4)	Bipolar, microstepping, int. current sense and latch-off

Integrated BLDC Motor Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (Typ)	Peak Output Current (A)	Control Interface	Wettable Flank Option	Package	Notes
S	MPQ6541-AEC1	4.75	45	3	29	4000	8	PWM/ENBL	✓	TQFN-26 (6x6)	Three-phase power stage, PWM/ENBL inputs, int. current sense
S	MPQ6541A-AEC1	4.5	35	3	29	4000	8	HS/LS	✓	TQFN-26 (6x6)	Three-phase power stage, HS/LS inputs, int. current sense

LOAD SWITCHES | AUTOMOTIVE

Load Switches | 5V Load Switches

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Load Current (A)	$R_{DS(ON)}$ (mΩ)	I_Q (Typ) (mA)	Adj Current Limit	Power Good	Wettable Flank QFN Option	Package	Notes
N	MPQ5071-AEC1	3	5.5	0.5	50	0.18	✓	✓	-	QFN-12 (2x2)	-
N	MPQ5072-AEC1	3	5.5	1	50	0.18	✓	✓	-	QFN-12 (2x2)	-
	MPQ5073-AEC1	3	5.5	2	50	0.18	✓	✓	-	QFN-12 (2x2)	-
S	MPQ5074-AEC1	3	5.5	3	10	0.22	✓	✓	✓	QFN-12 (2.5x3)	-
S	MPQ5075A-AEC1	3	5.5	5	10	0.22	✓	✓	✓	QFN-12 (2.5x3)	-
S	MPQ5077A-AEC1	3	5.5	7	10	0.22	✓	✓	✓	QFN-12 (2.5x3)	-

Load Switches | 40V Load Switches

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Load Current (A)	$R_{DS(ON)}$ (mΩ)	I_Q (Typ) (mA)	Adj Current Limit	Fault Pin	Wettable Flank QFN Option	Package	Notes
MPQ5066-AEC1	6	38	6	7	1	✓	✓	-	QFN-22 (3x5)	ISO16750-1 compliant
MPQ5068-AEC1	6	38	8	7	1	✓	✓	-	QFN-22 (3x5)	ISO16750-1 compliant
MPQ5069-AEC1	6	38	10	7	1	✓	✓	-	QFN-22 (3x5)	ISO16750-1 compliant

Reverse Battery Protection Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reverse Battery (V)	Gate Drive Current (mA)	Forward Voltage Drop (mV)	Shutdown I_Q (Typ) (µA)	Power Good	Int Boost Converter	Package	Notes
S	MPQ5850-AEC1	3	42	-40	100/400	20	3	✓	✓	TSOT23-8	Low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO16750-1 compliant

Analog Switches

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Switcher Current (A)	$R_{DS(ON)}$ (mΩ)	I_Q (Typ) (mA)	t_{ON} /t_{OFF} (ns)	Bandwidth (MHz)	Wettable Flank QFN Option	Package	Notes
MPQ2735-AEC1	1.65	5.5	0.1	0.25	1	29/23	50	-	QFN-10 (2x2)	Low-voltage 0.45Ω dual SPDT analog switches, separate control inputs

N - New Product S - Sampling Product

CLASS-D AUDIO AMPLIFIERS | AUTOMOTIVE

Class-D Audio Amplifiers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	P_{OUT} (W)	$R_{DS(ON)}$ (mΩ)	Idle Current (Typ) (mA)	f_{SW} (Max) (kHz)	Efficiency (%)	THD+N at 1kHz Input (%)	PSRR (dB)	SNR (dB)	Output Noise (μV)	Type	Load Diagnostic	Selectable Gain	Power Limiter	Digital Interface	Wettable Flank QFN Option	Package	Notes
S	**MPQ7795-AEC1**	4.5	42	24.5 @ 14.4V, 4Ω Load	150	6.5	330kHz to 2.2MHz	92 @ 470kHz, 90 @ 2MHz	0.09 @ 1W, 470kHz	71 @ 100Hz	102	115	Mono, BTL	✓	✓	✓	I^2C	✓	QFN-24 (4x4)	2.2MHz, low EMI, mono BTL with diagnostics
	MPQ7790-AEC1	5.5	18	9 @ 12V, 8Ω Load	300	5	300kHz	90	0.15 @ 5W (8Ω), 300kHz	50	102	115	Mono, BTL	-	✓	✓	-	-	TSSOP-20EP	Low EMI, analog input, for mono speaker in bridge-tied load configuration

POSITION SENSORS | AUTOMOTIVE

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Supply Current (mA)	Resolution	Output Format	ABZ Resolution (Bits)	PWM Frequency (Hz)	Latency (μs)	Start-Up Time (ms)	Refresh Rate (kHz)	Filter Cutoff Frequency (Hz)	Magnetic Field Detection	Magnetic Field Range (mT)	Wettable Flank QFN Option	Package	Notes
	MAQ430-AEC1	3	3.6	11.7	12-bit	SPI, ABZ, UVW	10	-	8	12	980	390	✓	30 to 150	✓	QFN-16 (3x3)	Supports end-of-shaft, side-shaft topologies
	MAQ470-AEC1	3	3.6	11.7	12-bit	SPI, SSI, ABZ, PWM	10	240	8	12	980	390	✓	30 to 150	✓	QFN-16 (3x3)	Supports end-of-shaft, side-shaft topologies
N	**MAQ473-AEC1**	3	3.6	11.7	14-bit	SPI, SSI, ABZ, PWM	12	970	8	0.6/12/260	980	23 to 6k	✓	30 to 150	✓	QFN-16 (3x3)	Supports end-of-shaft, side-shaft topologies

CURRENT SENSORS | AUTOMOTIVE

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Supply Current (mA)	Current Range (A)	Output Format	Accuracy (from 25°C to 125°C) (%)	Bandwidth (kHz)	Response Time (μs)	Temperature Range (°C)	Start-Up Time (μs)	FILT Unconnected	Primary Conductor Resistance (mΩ)	Package	Notes
S	**MCQ1802-xx-AEC**	3	3.6	8.5	±5, ±10, ±20,±30, ±40, ±50	Analog, Ratiometric	2.5	100	5	-40 to +150	90	0.9	SOIC-8	Coreless, analog output, immune to ext. magnetic fields	
S	**MCQ1803-xx-AEC**	4.5	5.5	8.5	±5, ±10, ±20,±30, ±40, ±50	Analog, Ratiometric	2.5	100	5	-40 to +150	90	0.9	SOIC-8	Coreless, analog output, immune to ext. magnetic fields	

EASYPOWER™ | AC/DC POWER CONVERSION

AC Buck

Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Control Method	$R_{DS(ON)}$ (Ω)	Breakdown Voltage (V)	No-Load Power (mW)	Package	Notes
MP100L	0.5	85	305	Smart LDO	9.5	700	100	SOIC-8E	Inductorless regulator for low-power applications, up to 0.5W
MP103	1	85	305	Smart LDO	NA	700	100	SOIC-8E	Inductorless controller for low-power applications, up to 1W
MP150	2	20	265	Non-Isolated	30	500	150	TSOT23-5, SOIC-8	Offline regulator, up to 200mA output current
MP155	3	20	265	Non-Isolated	20	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 220mA output current
MP157	6	20	265	Non-Isolated	10	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 360mA output current
MP158	3	20	265	Non-Isolated	20	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 70mA output current
MP171A	2	20	305	Non-Isolated	20	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP171 (up to 60mA output current)
MP172A	3	20	305	Non-Isolated	16	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP172 (up to 120mA output current)
MP173A	4	20	305	Non-Isolated	14	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP173 (up to 280mA output current)
MP174A	5	20	305	Non-Isolated	13.5	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP174 (up to 400mA output current)
MP175	10	30	265	Non-Isolated	4.5	700	30	SOIC-8	Offline regulator, up to 600mA output current
S **MP175L**	7.5	30	265	Non-Isolated	4.5	700	30	SOIC-8	Offline regulator, up to 600mA output current, for lower output applications than the MP175
MP163A	2	20	265	Non-Isolated	16	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 210mA current-limited switching regulator
MP163B	3	20	265	Non-Isolated	14	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 420mA current-limited switching regulator
MP163C	4	20	265	Non-Isolated	13.5	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 660mA current-limited switching regulator
MP161A	2	30	265	Non-Isolated	17	700	10	SOIC-16	Integrated 240mA current-limited switching regulator, linear regulator, and relay driver
MP161B	3	30	265	Non-Isolated	14	700	10	SOIC-16	Integrated 420mA current-limited switching regulator, linear regulator, and relay driver
P **MP161C**	4	30	265	Non-Isolated	13.5	700	10	SOIC-16	Integrated 660mA current-limited switching regulator, linear regulator, and relay driver

FLYBACK | AC/DC POWER CONVERSION

Secondary-Side Regulation

Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
HFC0100	Ext FET	85	305	Controller	-	Quasi-Resonant	700	-	SOIC-8	-
HFC0300	Ext FET	85	305	Controller	-	Variable Frequency	700	-	SOIC-7	Variable off-time
HFC0310	Ext FET	85	305	Controller	600	Fixed Frequency	-	-	SOIC-8	Prog. fixed frequency

N - New Product S - Sampling Product P - Preview

FLYBACK | AC/DC POWER CONVERSION

Secondary-Side Regulation

Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
HFC0500	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	HV start-up, X-capacitor discharge, brown-in/out
(S) **HFC0502**	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	Supports DC input, HV start-up, X-capacitor discharge, brown-in/out
HFC0511	Ext FET	85	305	Controller	130	Fixed Frequency	700	-	SOIC8-7A	Ultra-low no-load power consumption
(P) **HFC0650**	Ext FET	85	305	Controller	1000	Variable Frequency	650	-	SOIC8-7A	QRZVS flyback controller for high-efficiency high-density adapters
HF900	10	85	440	Regulator	300	Peak Current	900	13	PDIP8-7EP, SOIC14-11	Integrated 900V MOSFET
HF920	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	Integrated 900V MOSFET
HF920A	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	HF920 with AC UV protection
HF920B	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	Improved EMI performance from the HF920
HF500-7	7	85	305	Regulator	65	Fixed Frequency	700	12	SOIC8-7B	Integrated 700V MOSFET
HF500-15	15	85	305	Regulator	65	Fixed Frequency	700	4.5	SOIC8-7B	Integrated 700V MOSFET
HF500-30	30	85	305	Regulator	65	Fixed Frequency	700	1.4	PDIP8-7B	Integrated 700V MOSFET
(S) **HF500A-20**	20	85	305	Regulator	65	Fixed Frequency	700	3	PDIP8-7B	Int. 700V MOSFET, covers 12W to 20W home appliance applications
(N) **HF500A-30**	30	85	305	Regulator	65	Fixed Frequency	700	1.4	PDIP8-7B	Improved EMI performance from the HF500-30
HF500-40	40	85	305	Regulator	65	Fixed Frequency	700	0.9	PDIP8-7B	Integrated 700V MOSFET

Primary-Side Regulation

Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
MP020A-5	7	85	305	Regulator	75	Variable Frequency	700	10	SOIC8-7A	CV/CC control
MP023	Ext FET	85	305	Controller	100	Variable Frequency	700	-	SOIC8-7A	CV/CC control
MP024-10	10	85	305	Regulator	100	Variable Frequency	700	4.5	SOIC8-7B	CV/CC control

All-In-One Flyback with Primary-Side & Secondary-Side Controllers

MPX2001	Ext FET	85	305	Controller	85	Variable/CCM	650	-	SOICW-20	200V integrated SR controller with capacitive isolation
(S) **MPX2002**	Ext FET	85	305	Controller	85	CCM/QR	650	-	SOICW-16	150V integrated SR controller with capacitive isolation
(P) **MPX2003**	Ext FET	85	305	Controller	140	CCM/QR	650	-	SOICW-16	Higher-frequency version of the MPX2002

LLC 600V HALF-BRIDGE DRIVERS | AC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Control Scheme	Power (W)	Topology	Capacitive Mode Protection	Adaptive Dead Time Control	Package	Notes
HR1000A	85	305	Voltage Mode	Ext FET	LLC Resonant	-	-	SOIC-16	Variable frequency, high-power applications
HR1001A	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Two-level OCP via frequency shift and auto-restart, other features same as the HR1001B
HR1001B	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Variable freq. two-level OCP (1st level auto-restart, 2nd level latch)
HR1001C	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Improved surge performance compared to the HR1001B
HR1001L	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Two-level OCP via freq. shift and latch, other features same as the HR1001B
N **HR1002**	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Higher switching freq. applications than the HR1001C (up to 400kHz to 500kHz)
N **HR1002A**	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC16-15	Alternate package option of HR1002 without N/C pin

PFC + LLC COMBO CONTROLLERS | AC/DC POWER CONVERSION

Part Number	LLC Control Scheme	PFC Control Scheme	No-Load Power Consumption (mW)	Programming Ability	Topology	High-Voltage Start-Up	Package	Notes
HR1203	Voltage Mode	Digital CCM/DCM Multi-Mode	<150	I^2C/GUI	PFC + LLC	✓	TSSOP-28, SOIC-28	Digital PFC + analog LLC with GUI, replaces the HR1200
HR1204	Voltage Mode	Digital CCM/DCM Multi-Mode	<150	I^2C/GUI	PFC + LLC	-	TSSOP-28, SOIC-28	Digital PFC + analog LLC with GUI, replaces the HR1201
N **HR1210**	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	High performance, fully digital
N **HR1211**	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	High performance, fully digital
S **HR1213**	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	AC and DC input, with or without aux, selectable via GUI
S **HR1215**	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	Keeps the output regulated when AC turns off

PFC | AC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{O_MAX} / I_{CC_MAX} (mA)	I_{GATE_SRC} / I_{GATE_SINK} (mA)	Control Scheme	Topology	Package	Notes
MP44010	85	305	0.65/2.5	-350/+600	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, general purpose
MP44011	85	305	0.65/2.5	-350/+600	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, harmonic injection function, reduced capacitor value and inductor size compared to the MP44010
MP44014	85	305	3.2/4.5	-750/+800	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode
MP44014A	85	305	3.2/4.5	-750/+800	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, adj. open-loop protection

N - New Product S - Sampling Product P - Preview

PFC | AC/DC POWER CONVERSION

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{O_MAX} / I_{CC_MAX} (mA)	I_{GATE_SRC} / I_{GATE_SINK} (mA)	Control Scheme	Topology	Package	Notes
S	**MP44017**	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Based on the MP44018, optimized burst thresholds for lighting applications with deep dimming requirements
N	**MP44018A**	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	CrM/DCM multi-mode, enhanced light-load efficiency
P	**MP44019**	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Based on the MP44018, implements second OVP function for TV applications
S	**MP44060**	85	305	0.25/5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	High frequency, based on the MP44018A
N	**MP4078**	85	305	0.4/5	35V/0.27Ω Source-Driven	DCM	Flyback/Buck-Boost/Buck	SOIC-8	Primary-side control for constant voltage power

SYNCHRONOUS RECTIFIERS | AC/DC POWER CONVERSION

Flyback Topology (Fast Turn-Off, Intelligent)

	Part Number	Type	V_{DD} (Min) (V)	V_{DD} (Max) (V)	f_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Total $R_{DS(ON)}$ (mΩ)	Package	Notes
	MP6902	Controller	8	24	400	180	70	Ext FET	SOIC-8	Light-load management
	MP6906	Controller	4.2	35	400	180	30	Ext FET	SOIC-8, TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature
	MP6907	Controller	4.2	35	400	180	70	Ext FET	SOIC-8, TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature, better efficiency than the MP6902
	MP6908	Controller	4	13	400	180	40	Ext FET	TSOT23-6	Fast turn-off intelligent rectifier, slew rate detection, self-biased (no need for auxiliary winding)
	MP6908A	Controller	4	13	600	180	40	Ext FET	TSOT23-6	High-frequency, fast turn-off intelligent rectifier, slew rate detection, self-biased (no need for auxiliary winding)
	MP6908L	Controller	4.5	13	150	180	40	Ext FET	TSOT23-6	Optimized for 65kHz
N	**MP6908S**	Controller	4.5	13	400	180	40	Ext FET	TSOT23-6	Zero MOT
N	**MP6909**	Controller	4	13	400	180	40	Ext FET	TSOT23-6	Fast turn-off intelligent rectifier, slew rate detection
	MP6960	Controller	8	24	400	180	70	Ext FET	SOIC-8	Integrated CC/CV controller
N	**MP6910A**	Ideal diode	8	24	250	100	70	15	SOIC-8	MP6902 based ideal diode
N	**MP6910B**	Ideal diode	8	24	250	100	70	13	SOIC-8	MP6902 based ideal diode
	MP6919	Ideal diode	4.5	13	150	100	40	13	SOIC-8	MP6908 based ideal diode
	MP9989	Ideal diode	4.5	13	150	100	40	10	SOIC-8, QFN-8 (4x5)	MP6908 based ideal diode
P	**MP9989A**	Ideal diode	4	13	300	100	40	10	SOIC-8, QFN-8 (4x5)	MP6908A based ideal diode
	MP6953	Ideal diode	8	24	250	100	70	17	SOIC-8	12V, 2.5A, new ideal diode
	MP6954	Ideal diode	8	24	250	100	70	14	SOIC-8	12V, 3A, new ideal diode
S	**MP6971**	Ideal diode	4.5	13	150	100	40	20	SOIC-8	12V, 2A, MP6908 based ideal diode
N	**MP6972**	Ideal diode	4.5	13	150	100	40	17	SOIC-8	12V, 2.5A, new ideal diode with slew rate detection
N	**MP6973**	Ideal diode	4.5	13	150	100	40	14	SOIC-8	12V, 3A, new ideal diode with slew rate detection
S	**MP6975**	Ideal diode	4.5	13	150	100	40	12	SOIC-8	12V, 3.5A, MP6908 based ideal diode
S	**MP6976**	Ideal diode	4.5	13	150	100	40	10.5	SOIC-8	20V, 3.5A, MP6908 based ideal diode
P	**MP6980**	Controller	4	13	150	180	40	Ext FET	TSOT23-6	Thermally improved version based on the MP6908A

SYNCHRONOUS RECTIFIERS | AC/DC POWER CONVERSION

LLC Topology (Fast Turn-Off, Intelligent)

Part Number	Type	f_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Single/Dual	Package	Notes
MP6903	Controller	300	180	70	Single	SOIC-8E	High noise immunity, light-load management
MP6922	Controller	300	180	70	Dual	SOIC-8E, SOIC-14	V_{FWD} 70mV for LLC
MP6922A	Controller	300	180	30	Dual	SOIC-8E, SOIC-14	High-efficiency, V_{FWD} 30mV for LLC, light-load management
MP6922L	Controller	300	180	70	Dual	SOIC-8	V_{FWD} 70mV for LLC, shorten LL mode entry t_{ON} threshold, disable light-load entry when no gate pulse compared to the MP6922
MP6923	Controller	300	180	15	Dual	SOIC-14	High-power optimized
MP6925	Controller	500	180	45	Dual	SOIC-8	Enhanced light-load performance, compatible with the MP6924A
MP6925A	Controller	500	180	45	Dual	SOIC-8	Enhanced light-load performance, compatible with the MP6924
S **MP6926**	Controller	600	180	29	Dual	SOIC-8	High-frequency LLC SR based on the MP6925
N **MP6928A**	Controller	500	200	35	Dual	SOIC-8	LL mode configuration to avoid ripple at light-load steady state

N - New Product S - Sampling Product

AC/DC ISOLATED | LED LIGHTING

Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Topology	Package	Notes
MP4026	85	305	Ext FET	Flyback	SOT23-6	Primary-side control, active PFC
MP4027	85	305	Ext FET	Flyback	SOT23-8	Primary-side control, PFC, NTC, and PWM dimming
MP4031	85	305	Ext FET	Flyback	SOIC-8	TRIAC and analog dimming, deep dimming, primary-side control, active PFC
MP4033	85	305	Ext FET	Flyback	SOIC-8, MSOP-10, SOIC-14	Enhanced TRIAC dimming, primary-side control, active PFC
N **MP4057A**	85	305	Ext FET	Buck-Boost	MSOP-10, SOIC-14	Single-chip/single-stage solution for smart LED/wireless modules
N **MP4059**	85	305	Ext FET	Buck-Boost	SOIC-8	3% analog dimming
MP4060	85	305	Ext FET	Buck-Boost	SOIC-8, MSOP-10, SOIC-14	Improved trailing-edge dimmer performance at high line over the MP4056
N **MP4078**	85	305	Ext FET	Flyback/Buck-Boost/ Buck	SOIC-8	Primary-side control and PFC controller for constant voltage power
HR1001A	85	305	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, auto-restart at over-current for street lighting applications
HR1001B	85	305	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, two-level OCP
HR1001C	85	305	Ext FET	LLC Resonant	SOIC-16	Enhanced LLC controller with adaptive dead-time control, OCP, auto-restart, latch, enhanced surge
HR1001L	85	305	Ext FET	LLC Resonant	SOIC-16	Enhanced LLC controller with adaptive dead-time control, OCP, latch-off
MP44010	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8, DIP-8	Offline PFC, boundary conduction, ultra-low start-up current (15μA)
MP44011	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Offline PFC, boundary conduction, harmonic injection function (reduced capacitor value and inductor size compared to the MP44010)
MP44014	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Offline PFC, boundary conduction
MP44014A	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Boundary-mode PFC controller with adjusted open-loop protection
N **MP44018A**	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	CrM/DCM multi-mode boost PFC controller with enhanced light-load efficiency

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Topology	Package	Notes
MP4032-1	85	132	7	Flyback	SOIC8-7A	Integrated 500V FET, TRIAC dimming, deep dimming, primary-side control, active PFC
MP4034	85	305	7	Flyback	SOIC-8, MSOP-10, SOIC-14	Integrated 700V FET, primary-side control, no dimming or PFC

AC/DC NON-ISOLATED | LED LIGHTING

Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Package	Notes
MP4001	85	305	Ext FET	Low-Side Buck	SOIC-8	Offline LED controller, integrated high-voltage LDO, analog and PWM dimming
MP4054	85	305	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC
MP4054A	85	305	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC, NTC, PWM dimming
MP4056	85	305	Ext FET	Buck-Boost	SOIC-8, MSOP-10, SOIC-14	TRIAC dimming, offline LED controller, active PFC

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Package	Notes
MP4050A	85	265	8	Buck	SOIC-8, SOT23-5	Integrated 500V FET, offline driver, enhanced thermals, no PFC or dimming
MP4068	85	305 (Recommend Low-Line Only)	10	Buck/Buck-Boost	SOIC8-7A, SOIC-8EP	Integrated 500V FET, PFC driver with TRIAC dimming
MP4088	85 (Recommend High-Line Only)	305	8.5	Buck/Buck-Boost	SOIC8-7A, SOIC-8EP, TSOT23-5	Integrated 500V FET, PFC driver with TRIAC dimming

DC/DC LIGHTING | LED LIGHTING

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Configuration	I_{OUT} (A)	Max Efficiency (%)	Typ Frequency	Package	Notes
MP3412	0.8	4.4	Boost	1.1	96	1MHz	TSOT23-6	Synchronous boost, no dimming
MP2480	5	36	Buck	3	95	2MHz	SOIC-8E	Hysteresis control, PWM dimming
MP2481	4.5	36	Buck/Buck-Boost	1.2	95	1.4MHz	MSOP-8E	Analog and PWM dimming
MP24892	6	45	Low-Side Buck	1	95	600kHz	TSOT23-5	Hysteresis control, analog and PWM dimming, lower-cost version of the MP2489
MP24893	6	36	Low-Side Buck	1	95	600kHz	QFN-6 (3x3), TSOT23-5	Hysteresis control, analog and PWM dimming, lower-cost version of the MP2489
MP2483	4.5	55	Buck/Buck-Boost	2.5	95	1.35MHz	QFN-10 (3x3), SOIC-14	Analog and PWM dimming, consumer-grade
MP24183	4.5	55	Buck/Buck-Boost	1	95	1.35MHz	QFN-10 (3x3)	Analog and PWM dimming
MP2488	4.5	55	Buck	2	97.5	200kHz	QFN-10 (3x3), SOIC-8E	PWM dimming
MP2487	4.5	55	Buck	1	97.5	200kHz	SOIC-8E	PWM dimming
MP24833A	4.5	55	Buck/Boost/Buck-Boost	3	90	210kHz	SOIC-8E	Analog and PWM dimming
MP24895	6	36	Low-Side Buck	1	95	600kHz	QFN-6 (3x3), TSOT23-5	Hysteresis control, analog and PWM dimming
MP24895A	6	36	Low-Side Buck	-	-	-	MSOP-8EP	The MP24895 in an MSOP-8EP package, analog and PWM dimming

N - New Product

DC/DC LIGHTING | LED LIGHTING

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Configuration	I_{OUT} (A)	Max Efficiency (%)	Typ Frequency	Package	Notes
MP4688	4.5	80	Buck	1	95	2MHz	SOIC-8, SOIC-8E	Hysteresis control, PWM dimming
N **MP4689A**	4.5	100	Buck	1	95	1MHz	SOIC-8EP	Hysteresis current-mode control, dedicated PWM dimming control input
MP2410	4.2	24	Buck	2	97	1MHz	TSOT23-6, TSOT23-8	Synchronous buck, analog dimming only
MP2410A	4.2	24	Buck	2	97	1MHz	TSOT23-6, TSOT23-8	Synchronous buck, analog and PWM dimming
MP2489	6	60	Low-Side Buck	1	95	600kHz	QFN-6 (3x3), TSOT23-5, SOIC-8E	Hysteresis control

Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Max Efficiency (%)	Package	Notes
MP24894	6	60	Ext FET	Low-Side Buck	95	TSOT-6	Buck controller, hysteresis control

PROTECTION | LED LIGHTING

Regulators

Part Number	Control Method	Package	Notes
MP4690	Shunt	SOD-123	Smart bypass for LED protection, 6V voltage threshold protects 1 LED

SINGLE-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	OTG Current (Max) (A)	f_{SW} (kHz)	Control Interface	NVDC Power Path	Battery Type	Package	Notes
MP2610	5	24	26	2	4.2/8.4	-	1100	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (4x4)	NTC battery temp monitor
MP2611	3.95	6	7.5	2	4.2	-	1500	Standalone	-	Li-Ion, Li-Polymer	QFN-14 (3x4)	Dual-input, NTC battery temp monitor
MP2615	3.95	18	23	2	4.1/8.4	-	600	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
MP2615A	3.95	18	23	2	4.2/8.7	-	600	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
MP2615B	3.95	18	23	2	3.99/4.03	-	760	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
N **MP2615C**	3.95	18	23	2.1	4.1 to 8.4	-	760	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor, 25mΩ R_{SNS}
MP2625B	4	10	20	2	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP26101	5	24	26	2	4.1/8.2	-	1100	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (4x4)	NTC battery temp monitor
MP2623	3.5	24	26	2	3.6/7.2	-	1100	Standalone	-	LiFePO4	QFN-16 (4x4)	NTC battery temp monitor
MP2626	4.2	6.5	20	2	4.2/4.35	1	1200/600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	NTC battery temp monitor
MP2617A	4	10	20	3	4.35	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2617B	4	10	20	3	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2617H	4	14	20	3	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2635A	4.2	6.5	20	2	4.2/3.6	1.5	1200/600	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2633A	4.2	6.5	20	1.5	4.2/3.6	1	1200/600	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2690	3.6	5.8	14	2.5	4.2/4.35/4.45	2.1	600	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	Power-path management, BC1.2 detection, LED fuel gauge, NTC battery temp monitor, all-in-one autonomous mode
MP2635B	4.2	6.5	20	2	4.2/4.35	1.5	1200/600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2637	4.5	6	20	2.5	4.2/4.35	2.4	600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2637A	4.5	6	20	2.5	4.055/4.2	2.4	620	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt temp monitor, adj. boost V_{OUT}
MP2632B	3.6	5.8	20	3	4.2/4.35/4.45	3	600	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	Power-path management, BC1.2 detection, LED fuel gauge, NTC batt. temp monitor, all-in-one autonomous mode
MP2636	4.5	6.5	16	3	4.2/4.3/4.35	3	600	Standalone	-	Li-Ion, Li-Polymer	QFN-30 (4x4)	Power-path management, NTC battery temp monitor, adj. boost V_{OUT}, batt. current monitor

N - New Product

SINGLE-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	OTG Current (Max) (A)	f_{SW} (kHz)	Control Interface	NVDC Power Path	Battery Type	Package	Notes
MP2696A	4	11	16	3.6	3.6 to 4.45	3.6	700/1200	I²C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	JEITA batt. NTC monitor, power-path management, OTP prog. charging parameters, batt. current monitor, prog. boost V_{OUT}
N **MP2696B**	4	11	16	3.6	3.6 to 4.45	3.6	700/1200	I²C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	3.5A max input current, JEITA batt. NTC monitor, power-path management, OTP prog. charging parameters, batt. current monitor, prog. boost V_{OUT}
MP2695	4	11	16	3.6	3.6 to 4.45	-	600	I²C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	JEITA batt. NTC monitor, OTP prog. charging parameters, batt. current monitor
MP2624	3.6	7	20	4.5	3.48 to 4.425	1.3	1700	I²C	✓	Li-Ion, Li-Polymer	QFN-22 (3x4)	JEITA batt. NTC monitor, BC1.2 detection, shipping mode, OTG OCP hiccup function
MP2624A	3.6	7	20	4.5	3.48 to 4.425	1.3	1700	I²C	✓	Li-Ion, Li-Polymer	QFN-22 (3x4)	JEITA batt. NTC monitor, BC1.2 detection, shipping mode, OTG OCP latch-off function
N **MP2629**	3.7	6.3	22	4.5	3.4 to 4.67	3	750/1500	I²C/ Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3.5x3.5)	Batt. OCP/UVP, input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG
MP2639B	3.6	16	20	5	4.35	3	1300	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	JEITA batt. NTC monitor, LED fuel gauge, batt. current monitor
N **MP2731**	3.7	16	22	4.5	3.4 to 4.67	3	1000/1350	I²C/ Standalone	✓	Li-ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., Integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG
N **MP2723**	3.7	5.5	22	3	3.4 to 4.67	1.5	1000/1350	I²C/ Standalone	✓	Li-ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., Integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG
N **MP2733**	3.7	16	22	4.5	3.4 to 4.67	3	1000/1350	I²C/ Standalone	✓	Li-ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC (always available), JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG
N **MP2723A**	3.7	5.5	22	3	3.4 to 4.67	1.5	1000/1350	I²C/ Standalone	✓	Li-ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC (always available), JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG
N **MP2759**	3.9	36	45	3	3.6 to 26.4	-	450/700	Standalone	-	Li-ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	JEITA batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/charging indication
N **MP2759A**	3.9	36	45	3	3.6 to 26.4	-	450/700	Standalone	-	Li-ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	Batt. NTC monitor, input bypass power path, V_{IN} reg., input current regulation, OTP memory, input status/charging indication

LINEAR CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (mA)	Battery Charge Voltage (V)	Power Path	Control Interface	Battery Type	Package	Notes
MPQ5480	4	6	7	7.8 to 127	4.10	✓	Standalone	Li-Ion, Li-Polymer	WLCSP-16 (1.7x1.7)	Integrated buck regulator and load switch, USB compatible
MP2603	2.8	5.25	25	50 to 150	4.20	-	Standalone	Li-Ion, Li-Polymer	TSOT23-5	Charging indication
MP2660	4	5.85	13	8 to 500	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2661	4	5.85	13	8 to 500	3.6 to 4.565	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2662	3.83	5.85	21	8 to 456	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.75x1.75)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2663	4.35	5.5	13	8 to 500	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2664	4	5.85	13	8 to 500	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	QFN-10 (2x2)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2602	3.2	5.8	28	85 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	NTC batt. temp monitor, adapter present, charging indication, prog. termination current
MP26028	3.2	6.8	20	85 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current
MP26029	3.9	6.25 or 10.6	13	30 to 1000	3.6 to 4.4	-	Standalone	Li-Ion, Li-Polymer	SOT563, SOIC-8E, QFN-10 (3x3)	Batt. NTC monitor, OTP memory, thermal reg., USB compatible
MP2604	3.2	6.7	28	85 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor
MP2605	2.5	6.7	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP26053	2.5	6.7	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP26056	2.5	6.8	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Dual-mode USB/AC adapter current limits, adapter present, charging indication, prog. termination current
MP26057	3.5	6.8	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor

S - Sampling Product

LINEAR CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (mA)	Battery Charge Voltage (V)	Power Path	Control Interface	Battery Type	Package	Notes
MP26058	2.8	6.7	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor
MP2606	3.2	6.8	28	85 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current
MP26060	3.2	6.8	24	85 to 1000	4.15	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current
MP2607	4.51	6.27	13	300 to 1500	4.20	✓	Standalone	Li-Ion, Li-Polymer	QFN-14 (3x4)	Power-path management, dual-mode USB/AC adapter current limits, low $R_{DS(ON)}$, adapter present, charging indication, NTC batt. temp monitor
MP2608	4.25	5.8	28	100 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Dual-input, fault and charging indication, prog. termination current
MP26121	2.5	6.7	28	200 to 1000	4.20	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP2631	2.5	6.7	28	200 to 1000	4.20	✓	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Integrated 10mA LDO, adapter present, charging indication
MP2667	4	5.85	13	16 to 1000	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	QFN-10 (2x2)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
S **MP2665**	3.7	6	21	50 to 1000	3.6 to 4.5	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	QFN-12 (2.5x3.0)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible

CC & CV CONTROLLERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Charge Status	Charge Type	Battery Charge Voltage (V)	Package	Notes
MP26075	2.5	6.1	28	1	✓	CV/CC Linear	4.05 to 4.2	QFN-10 (3x3)	Pre-charge function, thermal foldback, voltage control function for flyback controller
MP26085	7	20	22	-	-	CV/CC Controller	Prog	SOT23-8	1.223V voltage reference
MP2681	4.9	30	36	4	✓	CV/CC Controller	4.15 to 20.75	SOIC-16	Full protection and indication, one-chip solution for power tool applications
MP2681B	4.9	30	36	5	✓	CV/CC Controller	4.158 to 20.79	SOIC-16	Full protection and indication, one-chip solution for power tool applications

MULTI-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	f_{SW} (kHz)	Topology	# of Series Cells	Control Interface	Battery Type	Package	Notes
MP2610	5	24	26	2	4.2/8.4	1100	Non-Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26101	5	24	26	2	4.1/8.2	1100	Non-Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26123	9	24	26	2	8.4/12.6	600	Non-Sync Buck	2, 3	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26124	18	24	28	2	16.8	600	Non-Sync Buck	4	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP2615	3.95	18	23	2	4.1/8.4	600	Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, input status/ charging indication
MP2615A	3.95	18	23	2	4.2/8.7	600	Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, input status/ charging indication
MP2619	3.4	24	26	2	8.4/12.6	600	Non-Sync Buck	2, 3	Standalone	Li-Ion, Li-Polymer	QFN-28 (4x5)	Power-path management, batt. NTC monitor
MP2623	3.5	24	26	2	3.6/7.2	1100	Non-Sync Buck	1, 2	Standalone	LiFePO4	QFN-16 (4x4)	Batt. NTC monitor
MP2672	3.75	5.75	14	2	8.3 to 9	600/1200	Sync Boost	2	I²C/ Standalone	Li-Ion, Li-Polymer	QFN-18 (2x3)	NVDC power-path management, JEITA batt. NTC monitor, OTP prog. charging parameters, integrated cell balancing
MP2639A	4.05	5.75	20	2.5	8.4	1300	Sync Boost	2	Standalone	Li-Ion, Li-Polymer	QFN-26 (4x4)	JEITA batt. NTC monitor, LED fuel gauge, batt. current monitor, integrated cell balancing, USB OTG
MP2639C	4.05	5.5	20	2.5	8.4	1300	Sync Boost	2	Standalone	Li-Ion, Li-Polymer	QFN-26 (4x4)	USB OTG, integrated cell balancing, USB compatible, JEITA batt. NTC monitor, thermal reg., V_{IN} reg., LED fuel gauge
MP2659	4.2	36	45	3	10.8 to 26.4	700/350	Sync Buck	3, 4, 5, 6	Standalone	Li-Ion, Li-Polymer	QFN-19 (3x3)	Batt. NTC monitor, V_{IN} reg., input current reg. OTP prog. charging parameters, integrated power FETs, input status/charging indication
N **MP2615C**	3.95	18	23	2.1	4.1 to 8.4	760	Buck	1,2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, 25mΩ R_{SNS}
N **MP2672A**	3.65	5.75	14	2	8.2 to 8.9	600/1200	Boost	2	I²C/ Standalone	Li-Ion, Li-Polymer	QFN-18 (2x3)	JEITA batt. NTC monitor, NVDC power path, thermal reg., V_{IN} reg., integrated cell balancing, OTP memory
N **MP2762A**	4	21	28	6	7.425 to 9	600/800/ 1000	Buck or Boost	2	I²C/ Standalone	Li-Ion, Li-Polymer	QFN-30 (4x5)	JEITA batt. NTC monitor, NVDC power path, V_{IN} reg., input current reg., OTP memory, dual-phase operation, batt. current monitor, integrated ADC

N - New Product S - Sampling Product

MULTI-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	f_{SW} (kHz)	Topology	# of Series Cells	Control Interface	Battery Type	Package	Notes
N MP2759	3.9	36	45	3	3.6 to 26.4	450/700	Buck	1, 2, 3, 4, 5, 6	Standalone	Li-ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	JEITA batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/ charging indication
N MP2759A	3.9	36	45	3	3.6 to 26.4	450/700	Buck	1, 2, 3, 4, 5, 6	Standalone	Li-ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	Batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/ charging indication
S MP2650	4	21	28	5	7.425 to 18	600/800/ 1000	Buck or Boost	2, 3, 4	I²C/ Standalone	Li-Ion, Li-Polymer	QFN-30 (4x5)	JEITA batt. NTC monitor, NVDC power path, V_{IN} reg., input current reg., OTP memory, batt. current monitor, integrated ADC

INPUT PROTECTION | BATTERY MANAGEMENT

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Current (Max) (A)	Charge Type	Package	Notes
MP2670	3	5.55	30	1.5	Battery Protection	QFN-10 (3x3)	Input OVP/OCP, batt. OVP, OTP, fault indication
MP2671	2.7	5.65	30	1.5	Battery Protection	QFN-12 (3x4)	Input OVP/OCP, batt. OVP, OTP, prog. current limit
MP2676	2.8	5.8	30	1.6	Battery Protection	QFN-8 (2x2)	Input OVP/OCP, batt. OVP, OTP, integrated charging FET
MP2678	2.8	9.9	30	1.7	Battery Protection	QFN-8 (2x2)	Input OVP/OCP, batt. OVP, OTP, 5V LDO mode

FUEL GAUGES | BATTERY MANAGEMENT

Part Number	Nominal Battery Pack Voltage Range (V)	Implementation	Control Interface	Average Discharge Rate	External Capacity Indication	Cell Chemistry	Package	# of Series Cells	Notes
N MPF42790	7.4 to 60	Pack-Side	I²C + CRC	<2C	5-Level LED	Li-Ion, Li-Polymer	TQFN-32 (4x4)	2 to 16	Lifetime logging function, fuel gauge algorithm, prog. batt. pack topology, prog. pack empty level, prog. full level, state-of-charge level, state-of-health, available power
N MPF42792	7.4 to 60	Pack-Side	I²C + CRC	<2C	-	Li-Ion, Li-Polymer	TQFN-32 (4x4)	2 to 16	Lifetime logging function, fuel gauge algorithm, prog. batt. pack topology, prog. pack empty level, prog. full level, state-of-charge level, state-of-health, available power
N MPF42795	7.4 to 37	Pack-Side	I²C + CRC	<2C	5-Level LED	Li-Ion, Li-Polymer	TQFN-32 (4x4)	2 to 10	Lifetime logging function, fuel gauge algorithm, prog. batt. pack topology, prog. pack empty level, prog. full level, state-of-charge level, state-of-health, available power
N MPF42797	7.4 to 37	Pack-Side	I²C + CRC	<2C	-	Li-Ion, Li-Polymer	TQFN-32 (4x4)	2 to 10	Lifetime logging function, fuel gauge algorithm, prog. batt. pack topology, prog. pack empty level, prog. full level, state-of-charge level, state-of-health, available power

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP1488	2.5	6	25	1	0.8	0.104	1300	-	Boost	TSOT23-6	Fixed frequency
MP1517	2.6	25	25	1	4	0.7	1100	✓	Boost	QFN-16 (4x4)	UVLO, external compensation
MP1518	2.5	6	25	1	0.35	0.104	1300	-	Boost	QFN-8 (2x2), TSOT23-6	External current-sense resistor
MP1519	2.5	5.5	10	4	-	-	1300	-	Charge Pump	QFN-16 (3x3)	Common cathode
MP1528	2.7	36	36	1	0.95	0.4	Variable	✓	Boost	MSOP-8, QFN-6 (3x3), QFN-8 (2x3)	Drives up to nine series white LED drivers
MP23701	4.2	24	-	1	5	0.1	1500	✓	Buck	UTQFN-8 (1.5x2.5)	2A, synchronous LED driver
(N) **MP2341**	4.2	24	20	1	4	0.1	1000	✓	Buck	SOT583 (2x1.5)	High efficiency, forced PWM mode, 50:1 dimming ratio via analog dimming, 1000:1 dimming ratio via PWM dimming
MP24830 -C470	4.5	90	Ext FET	1	Ext FET	0.201	50 to 365	✓	Buck-Boost	SOIC-14, QFN-14 (3x4)	Power leverage in 2.5 power stages, low BOM cost, high efficiency
MP3202	2.5	6	25	1	1.33	0.104	1300	✓	Boost	QFN-8 (2x2), TSOT23-5	UVLO, low EMI, thermal shutdown
MP3204	2.5	6	21	1	0.35	0.104	1300	✓	Boost	TSOT23-6	UVLO, low EMI, thermal shutdown
MP3205	2.5	6	21	1	0.35	0.104	1300	-	Boost	TSOT23-5	MP3204 without OV pin
MP3301	2.5	6	36	1	1	0.2	1300	✓	Boost	TSOT23-5	Up to 10 series LED
MP3302	2.5	6	36	1	1.33	0.2	1300	✓	Boost	QFN-8 (2x3), TSOT23-5	UVLO, low EMI, thermal shutdown
MP3304B	3	6	24	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming
MP3305	3	6	36	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming, adj. OVP threshold
MP3306	3	12	30	1	1.8	0.2	700	✓	Boost	QFN-12 (2x2)	Sync boost, integrated disconnect FET
MP3307	2.7	5.5	35	1	1.6 (Min)	0.2	300 to 2200, Prog	✓	Boost	TSOT23-8	For automotive infotainment LCDs
MP3308	3	6	36	1	1.33	0.2	2200	✓	Boost	QFN-14 (3x4)	Supports CABC dimming
MP3309	2.7	5.5	35	1	1.5	0.2	300 to 2200, Prog	✓	Boost	QFN-10 (1.4x1.8)	Sync boost
MP3309A	2.7	5.5	35	1	1.5	0.2	300 to 2200, Prog	✓	Boost	QFN-10 (3x3)	Sync boost
MP3309C	2.7	5.5	35	1	1.5	0.2	300 to 2200, Prog	✓	Boost	QFN-10 (1.4x1.8)	Sync boost, I^2C interface
MP3309L	2.7	5.5	24	1	1.6	0.2	300 to 2200, Prog	✓	Boost	QFN-10 (1.4x1.8)	Sync boost
MP3310	4.5	25	50	1	1.3	0.5	1200, Prog	✓	Boost	QFN-10 (3x3)	Wide input range, true PWM dimming
MP3312	2.7	5.5	36	2	1.8	0.24	1200	✓	Boost	WLCSP-9 (1.3x1.3)	30mA/string, balanced LED current

(N) - New Product (S) - Sampling Product

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
	MP3313	2.7	5.5	38	3	1.5	-	250/500/1000	✓	Boost	WLCSP-12	Linear/exponential analog dimming, 100mA LED current in flash mode, I²C
S	**MP3314**	2.7	30	43	6	0.9 to 2.4	-	312/625/1250	✓	Boost	CSP-20	50mA, 50V absolute max rating, I²C interface
	MP3318	2.7	5.5	38	3	1.5	-	250/500/1000	✓	Boost	WLCSP-12	Linear/exponential analog dimming, 100mA LED current in flash mode, I²C
N	**MP3326**	4	16	16	16	-	-	-	✓	Current Source	QFN4-24 (4x4)	10 prog. IC addresses, LED current slew rate, phase shift
N	**MP3362**	3	36	36	1	4	0.2	200 to 2200, Prog	✓	Boost	TSOT23-8	Low $R_{DS(ON)}$, soft start
N	**MP3363**	1.8	36	36	1	1	0.2	200 to 2200, Prog	✓	Boost	TSOT23-8	Low $R_{DS(ON)}$, soft start
N	**MP3364**	3.5	36	45	4	3	-	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4)	150mA/ch, I²C, high dimming ratio, prog. LED short threshold, OVP threshold, and IC address
	MP3366	3	25	50	6	2.5	0.5	600	✓	Boost	WLCSP-18 (1.3x2.5)	Smart dimming
	MP3367	3.5	36	45	6	3	0.4	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4), TSSOP-28EP	I²C, 15000:1 dimming ratio, prog. LED short threshold and OVP threshold
	MP3370	3.5	36	38	1	3	-	400	✓	Boost	SOIC-8E	Current source
N	**MP3371**	2.7	30	45	8	1.8 to 2.5	-	350/500/650 /800/950/1200	✓	Boost	QFN4-24 (4x4)	Sync boost, I²C, linear smooth dimming, multi-dimming mode
	MP3372	2.7	30	45	8	1.8 to 2.5	-	350/500/650 /800/950/1200	✓	Boost	QFN4-24 (4x4)	Sync boost, I²C, linear smooth dimming, multi-dimming mode, phase shift during PWM dimming
	MP3373	9	40	Ext FET	8	Ext FET	0.2	100 to 1000	✓	Boost	SOIC-28, TSSOP-28	Phases shift, inductor short protection, cost effective, replaces the MP3393 in new designs
	MP3376	3	30	36	8	2.5	-	350 to 2400	✓	Boost	QFN-24 (4x4)	Sync boost, max 50mA/ string, I²C interface
	MP3376A	3	30	37.5	8	2.5	-	350 to 2400	✓	Boost	QFN-24 (4x4)	Sync boost, max 50mA/ string, I²C interface
S	**MP3377**	3	30	36	8	1.8 to 2.5	-	350/500/650 /800/950/1200 /1800/2400	✓	Boost	CSP-25 (2.6x2.6)	Sync boost, four I²C addresses, linear smooth dimming, multi-dimming mode
	MP3378	5	24	55	4	-	-	Prog	✓	Boost + Buck	SOIC-28, TSSOP-28EP	Integrated boost controller and DC/DC buck converter, AAM power-save mode
	MP3378E	5	24	55	4	-	-	Prog	✓	Boost + Buck	TSSOP-28EP	Integrated boost controller and DC/DC buck converter, separate EN pin

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP3384L	3	25	50	4	1.3	0.6	1250 or 625	✓	Boost	QFN-16 (3x3)	-
S MP3383	4.5	33	80	4	Ext FET	-	100 to 900	✓	Boost	SOIC-16, TSSOP-16EP, PDIP-16	Max 350mA/string, analog and PWM dimming
MP3385A	4.5	33	80	4	Ext FET	-	100 to 900	✓	Boost	QFN-20	I^2C, abs. 80V LED V_{FB} rating, max 300mA/channel, replaces the MP3385
MP3387A	3	26	50	6	2.5	-	500 to 1250	✓	Boost	TQFN-24 (4x4)	Max 80mA/string, combined analog and PWM dimming
MP3387L	3	26	50	6	2.5	0.6	500 to 1250	✓	Boost	TQFN-24 (4x4)	Smart dimming
MP3388S	4.5	25	50	8	2	0.6	625 or 1250	✓	Boost	QFN-24 (4x4), SOIC-28	PWM/DC input PWM dimming
MP3389	5	28	Ext FET	12	Ext FET	0.6	100 to 500	✓	Boost	TSSOP-28EP, SOIC-28	External MOSFET, PWM or DC input burst, PWM dimming
MP3391	9	35	Ext FET	8	Ext FET	0.45	150 to 500	✓	Boost	SOIC-28, TSSOP-28EP	80mA/channel, ideal for 18" to 24" LCD panels/TVs
MP3394S	5	28	55	4	Ext FET	0.3	150 to 500	✓	Boost	TSSOP-16EP, SOIC-16	Replaces the MP3394
MP3398A	5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	TSSOP-16EP, SOIC-16, SOIC-20	Inductor short protection, separate ADIM pin
MP3398D	5	28	55	4	Ext FET	-	100 to 500	✓	Boost	SOIC-16, SOIC-20	Max 350mA/string, analog and PWM dimming
MP3398L	4.5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	SOIC-16	Lower V_{IN} (min) than the MP3398A
N MP3398E	4.5	33	80	4	Ext FET	-	100 to 500	✓	Boost	SOIC-16, TSSOP-16EP, PDIP-16	Max 400mA/string, analog and PWM dimming
MP3412	0.8	4.4	5	1	1.1	0.2	1000	✓	Boost	TSOT23-6	High efficiency
MP4013B	8	26	Ext FET	1	Ext FET	0.6	100 to 600	✓	Boost	SOIC-16	More features and better protection, replaces the MP4012 and MP4013 in new designs
MP4653	Offline	Offline	Ext FET	1	Ext FET	0.2	20 to 250	✓	LLC	SOIC-20	LIPS CC/CV mode, low BOM cost, high efficiency
MP4655	Offline	Offline	Ext FET	1	Ext FET	0.2	40 to 130	✓	LLC	SOIC-28	Single-stage LED driver and system voltage regulator
N MP4657A	4	16	80	4	-	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Pure single-stage, flyback LED driver and system voltage controller
S MP4657B	4	16	80	4	-	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Improves audible noise reduction performance
S MP4658	6	36	80	4	-	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	AC/DC feedback
MP4700	Offline	Offline	Ext FET	1	Ext FET	0.3	Up to 160	✓	Buck	SOIC-8E	BCM zero-current and valley voltage switching >97% efficiency, low BOM cost, low-power stress

N - New Product S - Sampling Product

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP9361	2.8	5	5	1	-	-	1350	✓	Reg Charge Pump	TSOT23-6	Internal soft start
MP5610	2.7	5.5	5.8	2	0.3	0.6	1200	-	Boost	QFN-10 (1.4x1.8)	LCD bias power supply
S **MP5611**	2.9	5.5	-	3	1.5/3 /0.5	-	1500/1700 /1500	-	Boost, Buck-Boost	TQFN-16 (3x3)	Triple-output AMOLED display power supply
N **MPQ3324-AEC1**	4	16	-	8	-	-	-	✓	LED Driver with Current Source	QFN4-24 (4x4)	Max 100mA/ch, I²C interface, phase shift, AEC-Q100
N **MPQ3326-AEC1**	4	16	-	16	-	-	-	✓	LED Driver with Current Source	QFN4-24 (4x4)	50mA/ch, 10 prog. addresses, prog. LED current slew rate, phase shift, AEC-Q100
S **MPQ3326A-AEC1**	4	16	-	16	-	-	-	✓	LED Driver with Current Source	QFN4-24 (4x4)	80mA/ch, 10 prog. addresses, prog. LED current slew rate, phase shift, AEC-Q100
N **MPQ3362-AEC1**	3	36	36	1	4	0.2	200 to 2200, Prog	✓	Boost	FCTSOT23-8	Low $R_{DS(ON)}$, soft start, AEC-Q100 qualified
N **MPQ3364-AEC1**	3.5	36	45	4	3	-	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4)	150mA/ch, I²C, high dimming ratio, prog. LED short threshold, OVP threshold, and IC address
MPQ3367-AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4), TSSOP-28EP	150mA/ch, I²C, high dimming ratio, prog. LED short threshold and OVP threshold
N **MPQ3367A-AEC1**	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4)	150mA/ch, I²C, high dimming ratio, prog. LED short threshold, OVP threshold, and IC address
MPQ3369-AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN4-24 (4x4), TSSOP-28EP	100mA/ch, I²C, high dimming ratio, prog. LED short threshold and OVP threshold
MPQ3386-AEC1	4.5	25	50	6	2.5	0.6	1250	✓	Boost	QFN-24 (4x4)	Industrial grade, AEC-Q100 qualified
MPQ9361	2.8	5	5	1	-	-	1350	-	Reg Charge Pump	TSOT23-6	Internal soft start, industrial grade

LED PHOTO FLASH DRIVERS | DISPLAY BACKLIGHTING POWER

Photo Flash

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	I_{OUT} (Max) (A)	f_{SW} (kHz)	Type	Package	Notes
MP3214	2.7	5.5	-	1	0.5	1.35	Charge Pump	QFN-16 (3x3)	Charge pump
MP3331	2.7	5.5	-	1	2	1/2/3/4	Boost	WLCSP-9 (1.7x1.7)	2A boost, I²C, sync rectification output disconnect
MP3336	2.7	5.5	6.0	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2.0)	2A/channel, I²C interface
N **MP3336A**	2.7	5.5	5.2	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2.0)	2A/channel, I²C interface, NFC applications

ANALOG INPUT | CLASS-D AUDIO

Mono

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	P_{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Package	Notes
MP1720	2.5	5.5	2.7	90	0.11 @ 1W	60	QFN-10 (3x3), MSOP-10E	BTL, low EMI, high efficiency, flexible switching frequency setting
MP7731	9.5	18	30	90	0.10 @ 1W	60	TSSOP-20F	Exposed pad
MPQ7731	9.5	18	30	90	0.10 @ 1W	60	TSSOP-20F	Exposed pad, industrial grade
MP7741	9.5	36	10	94	0.02 @ 1W	58	QFN-10 (3x3)	Single-ended, fully integrated amplifier
MP7740	9.5	36	15	90	0.018 @ 1W	60	SOIC-8	Single-ended amplifier
MP7747	9.5	36	20	91	0.02 @ 1W	59	QFN-10 (3x3)	Single-ended, fully integrated amplifier

Stereo

MP7720	9.5	24	20	93	0.04 @ 1W	60	SOIC-8, PDIP-8	20W amplifier
MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	TSSOP-20F	Single-ended amplifier, exposed pad
MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	TSSOP-28EP	2x 30W single-ended or 1x 60W BTL amplifier
MP7751	5	26	20 (2x)	92	0.06 @ 1W	60	TSSOP-28EP	BTL amplifier
MP7752	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	Filterless BTL amplifer
N **MP7758**	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	Idle channel I_Q, <10mA analog input options
MP7770	9.5	36	45 (2x)	95	0.03 @ 1W	60	TSSOP-28F	2x 45W single-ended or 1x 90W BTL amplifier, 8.5A peak, exposed pad

PWM INPUT | CLASS-D AUDIO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Control Interface	Package	Notes
MP8040	7.5	24	1	9	PWM	SOIC-8EP	Half-bridge driver
MP8046	7.5	28	2	5	PWM	TSSOP-20F	Full-bridge driver
MP8049S	5	26	4	5.5	PWM	QFN-40 (5x5)	Dual full-bridge driver
MPQ8039-AEC1	7.5	24	1	9	PWM	SOIC-8EP	Half-bridge driver, AEC-Q100 qualified

N - New Product S - Sampling Product

BRUSHED DC MOTORS/SOLENOID DRIVERS | MOTOR DRIVERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Control Interface	Package	Notes
	MP6507	2.7	15	4	0.7	PWM	TSSOP-16EP, QFN-16 (3x3), QFN-16 (4x4)	Dual H-bridges
	MP6508	2.7	18	4	1.2	PWM	TSSOP-16EP, QFN-16 (4x4)	Dual H-bridges
	MP6513	2.5	21	2	0.8	PWM	TSOT23-6	Simple H-bridge
	MP6513L	2.5	5.5	2	0.6	PWM	TSOT23-6	Low-power H-bridge
	MP6515	5.4	35	2	2.8	Phase/ Enable	QFN-20 (3x4), TSSOP-16EP	H-bridge motor driver
	MP6516	5.4	35	2	2.8	PWM	TSSOP-16EP	H-bridge
	MP6519	2.5	28	2	5	PWM	QFN-19 (3x3)	H-bridge current regulator
	MP6522	5.4	35	2	3.2	PWM	QFN-24 (5x5)	Simple H-bridge motor driver
	MP6523	7	28	3	0.9	SPI	QFN-24 (4x4)	Motor driver with serial input control
	MP6526	7	28	6	0.9	SPI	SOIC-28, QFN-24(4x4), QFN-24 (5x5)	Serial input control
S	**MP6527**	5.5	40	10	0.8	SPI	TSSOP-28EP	Serial input control
	MP6550	1.8	22	2	2	PWM	QFN-12 (2x2)	H-bridge
N	**MP6551**	2.5	14	2	5	PWM	QFN-14 (2.5x3)	Low-voltage H-bridge
N	**MP6610**	4	55	1	3	PWM	TSOT23-8, SOIC-8	Half-bridge, IN/EN control inputs
S	**MP6612**	4	45	2	5	PWM	TSSOP-20EP	H-bridge with current sense, IN1 and IN2 inputs
S	**MP6612D**	4	45	2	5	DIR/ENBL	TSSOP-20EP	H-bridge with current sense, ENBL and DIR inputs
S	**MP6615**	4.75	45	2	12	PWM	QFN-26 (6x6)	H-bridge
N	**MP6619**	5.4	28	2	5	PWM	QFN-19 (3x3)	H-bridge
	MP8040	7.5	24	1	9	PWM	SOIC-8EP	H-bridge driver
	MP8046	7.5	28	2	5	PWM	TSSOP-20F	Full-bridge driver
	MP8049S	5	26	4	5.5	PWM	QFN-40 (5x5)	Dual full-bridge driver
S	**MPQ6519-AEC1**	2.5	28	2	5	PWM	QFN-19 (3x3)	H-bridge current regulator, AEC-Q100 qualified
	MPQ6523-AEC1	7	28	3	0.9	SPI	QFN-24 (4x4)	Serial input control, AEC-Q100 qualified
	MPQ6524-AEC1	7	28	4	0.9	PWM	QFN-24 (4x4)	Serial input control, AEC-Q100 qualified
	MPQ6526-AEC1	7	28	6	0.9	SPI	QFN-24 (4x4), QFN-24 (5x5)	Serial input control, AEC-Q100 qualified
S	**MPQ6527-AEC1**	5.5	40	10	0.8	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified
N	**MPQ6610-AEC1**	4	55	1	3	PWM	TSOT23-8, SOIC-8	Half-bridge, AEC-Q100 qualified
S	**MPQ6612A-AEC1**	4	45	2	5	PWM	QFN-18 (3x4)	H-bridge with current sense, IN1 and IN2 inputs, AEC-Q100 qualified
S	**MPQ6615-AEC1**	4.75	45	2	12	PWM	QFN-26 (6x6)	H-bridge, AEC-Q100 qualified
S	**MPQ6626-AEC1**	5.5	40	6	0.8	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified
S	**MPQ6628-AEC1**	5.5	40	8	0.8	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified

BRUSHLESS DC PRE-DRIVERS | MOTOR DRIVERS

	Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	V_{SW} (Max) (V)	# of Half-Bridges	I_{SINK} / I_{SOURCE} (A)	Hall Input	Package	Notes
	MP1921A	9	18	100	1	2.5/1.5	-	SOIC-8EP, QFN-8 (3x3), QFN-9 (3x3), QFN-10 (4x4)	Half-bridge gate driver
	MP1921B	9	18	100	1	2.5/1.5	-	QFN-10 (3x3)	Half-bridge gate driver
S	**MP1922**	4	15	100	1	4/3	-	QFN-22 (4x5)	Half-bridge pre-driver, current-sense amplifier, slew rate control
S	**MP1923**	5	17	100	1	8/7	-	QFN-8 (4x4)	High-frequency half-bridge gate driver
	MP1924A	8	15	100	1	4.5/3	-	QFN-10 (4x4), SOIC-8	Half-bridge gate driver
	MP1925	8	15	100	1	4.5/3	-	QFN-8 (4x4)	Half-bridge gate driver
	MP6528	5	60	-	2	1/0.8	-	QFN-28 (4x4)	H-bridge pre-driver
	MP6530	5	60	60	3	1/0.8	-	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver with PWM/EN control
	MP6531A	5	60	60	3	1/0.8	-	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver with HS/LS inputs
	MP6532	5	60	60	3	1/0.8	✓	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver with commutation logic
	MP6534	5	55	55	3	1/0.8	-	QFN-40 (5x5)	3-phase pre-driver with commutation logic and buck regulator
	MP6535	5	55	55	3	1/0.8	✓	QFN-40 (5x5)	3-phase pre-driver with buck regulator
	MP6537	8	100	-	3	1/0.8	-	QFN-28 (4x5)	3-phase pre-driver, PWM/EN inputs
	MP6538	8	100	-	3	1/0.8	✓	QFN-28 (4x5)	3-phase pre-driver with Hall commutation logic
	MP6539	8	100	-	3	1/0.8	-	QFN-28 (4x5), TSSOP-2EP	3-phase pre-driver with HS/LS inputs
	MP6539B	8	100	-	3	1/0.8	-	QFN-28 (4x5), TSSOP-28EP	3-phase pre-driver
S	**MP6539C**	8	100	-	3	1/0.8	-	QFN-28 (4x5)	3-phase pre-driver with HS/LS inputs
S	**MPQ1922-AEC1**	4	15	100	1	4/3	-	QFN-22 (4x5)	Half-bridge pre-driver, current-sense amplifier, slew rate control
S	**MPQ1923-AEC1**	5	17	100	1	8/7	-	QFN-8(4x4)	High-frequency half-bridge gate driver
S	**MPQ6528-AEC1**	5	60	60	2	1/0.8	-	QFN-28 (4x5)	H-bridge pre-driver, AEC-Q100 qualified
N	**MPQ6531-AEC1**	5	60	60	3	1/0.8	-	QFN-28 (4x5)	3-phase pre-driver, AEC-Q100 qualified
S	**MPQ6532-AEC1**	5	60	60	3	1/0.8	✓	QFN-28 (4x5)	3-phase pre-driver with commutation logic, AEC-Q100 qualified
S	**MPQ6533-AEC1**	6	40	-	3	1/0.8	-	QFN-32 (5x5)	3-channel pre-driver, AEC-Q100 qualified

STEPPER MOTOR DRIVERS | MOTOR DRIVERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	Step Mode	Control Interface	Package	Notes
	MP6500	4.5	35	2.5	1, ½, ¼, ⅛	Indexer	QFN-24 (5x5), TSSOP-28	Bipolar stepper, microstepping, internal current sense
	MP6500A	4.5	35	2.5	1, ½, ¼, ⅛	Indexer	TSSOP-28EP	Bipolar stepper, microstepping, internal current sense, prog. voltage
N	**MP6500L**	4.5	35	2.5	1, ½, ¼, ⅛	Indexer	QFN-24 (5x5)	Bipolar stepper, microstepping, internal current sense, latch-off function
	MP6501A	8	35	2.5	1, ½, ¼, ⅛	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
	MP6504	8	32	2	1, ½, ¼, ⅛	Indexer	QFN-28 (4x5)	Bipolar stepper, microstepping
	MP6506	2.7	15	0.5	1, ½	Parallel	QFN-16 (3x3)	Bipolar stepper

N - New Product S - Sampling Product

STEPPER MOTOR DRIVERS | MOTOR DRIVERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	Step Mode	Control Interface	Package	Notes
	MP6507	2.7	15	0.7	1, ½	Parallel	TSSOP16EP, QFN-16 (3x3), QFN-16 (4x4), TSSOP-16	Bipolar stepper
	MP6508	2.7	18	1.2	1, ½	Parallel	TSSOP-16EP, QFN-16 (4x4)	Bipolar stepper
	MP6509	2.7	18	1.2	1, ½	Parallel	TSSOP-20EP	Bipolar stepper, current attenuation
	MP6518	8	35	1.5	1, ½, ¼, ⅛	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
	MP6520	8	32	1.5	1, ½, ¼, ⅛	Indexer	QFN-28 (4x5)	Stepper, integrated MOSFETs
	MP6600	4.5	35	1.5	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense
N	**MP6600L**	4.5	35	1.5	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off function
	MP6601	4.5	35	2.5	1, ½, ¼	Parallel	QFN-24 (5x5), TSSOP-28EP	Stepper, internal current sense
S	**MP6604A**	4.5	45	2.5	-	IN/EN	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver, IN/EN interface
S	**MP6604B**	4.5	45	2.5	-	PHASE/ ENBL	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver, PHASE/ENBL interface
S	**MP6604C**	4.5	45	2.5	-	HS/LS	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver, HS/LS interface
S	**MPQ6600L-AEC1**	4.5	35	1.5	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off, AEC-Q100 qualified

INTEGRATED BLDC MOTOR DRIVERS | MOTOR DRIVERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Hall Input	Package	Notes
	MP6536	5	26	3	5.5	-	QFN-40 (5x5)	3-channel half-bridge driver
	MP6540	5.5	35	3	3	-	QFN-26 (5x5)	3-phase power stage, PWM/ENBL inputs
	MP6540A	5.5	35	3	3	-	QFN-26 (5x5)	3-phase power stage, HS/LS inputs
	MP6540H	5.5	50	3	5	-	QFN-26 (5x5)	3-phase power stage, PWM/ENBL inputs
	MP6540HA	5.5	50	3	5	-	QFN-26 (5x5)	3-phase power stage, HS/LS inputs
S	**MP6541**	4.75	45	3	8	-	QFN-26 (6x6)	3-phase power stage, PWM/ENBL inputs
S	**MP6541A**	4.75	45	3	8	-	QFN-26 (6x6)	3-phase power stage, HS/LS inputs
N	**MP6543**	3	12	3	2	-	QFN-24 (3x4)	3-phase power stage, PWM/ENBL inputs
N	**MP6543A**	3	12	3	2	-	QFN-24 (3x4)	3-phase power stage, HS/LS inputs
N	**MP6543B**	3	12	3	2	-	QFN-24 (3x4)	3-phase power stage, Hall signal inputs
N	**MP6543H**	3	22	3	2	-	QFN-24 (3x4)	3-phase power stage, PWM/ENBL inputs
N	**MP6543H-A**	3	22	3	2	-	QFN-24 (3x4)	3-phase power stage, HS/LS inputs
N	**MP6543H-B**	3	22	3	2	-	QFN-24 (3x4)	3-phase power stage, Hall signal inputs
S	**MP6543C**	3	22	3	1.2	-	QFN-24 (3x4)	3-phase power stage, PWM/ENBL inputs
S	**MP6545**	4.5	45	3	2.5	-	QFN-28 (4x5), TSSOP-28EP	3-channel power stage, HS/LS inputs
S	**MPQ6541-AEC1**	4.75	45	3	8	-	TQFN-26 (6x6)	3-phase power stage, PWM/ENBL inputs, AEC-Q100 qualified
S	**MPQ6541A-AEC1**	4.75	45	3	8	-	TQFN-26 (6x6)	3-phase power stage, HS/LS inputs, AEC-Q100 qualified

FAN DRIVERS | MOTOR DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Hall Input	Package	Notes
MP6505	4.5	16	2	0.4	✓	TSSOP-16EP	Single-phase BLDC
MP6510	4.5	16	2	1.2	✓	TSSOP-16EP	Single-phase BLDC
MP6517	3.3	18	2	1.2	✓	TSOT23-6, TSOT23-6-SL	Prog. single-phase BLDC, integrated Hall sensor
MP6517A	3.3	16	2	2	✓	TSOT23-6, TSOT23-6-SL	Prog. single-phase BLDC, integrated Hall sensor
MP6517B	3.3	16	2	2	✓	TSOT23-6-L, TSOT23-6-R, TSOT23-6-SL, TSOT23-6-RSL	Prog. single-phase BLDC, integrated Hall sensor
N **MP6616**	3.3	18	2	4	✓	QFN-10 (2x3)	Single-phase BLDC, for closed-loop applicaitions
S **MP6616A**	3.3	18	2	4	✓	QFN-10 (2x3)	I_{STB} ≤ 0.5mA compared to the MP6616
N **MP6616L**	3.3	18	2	3	✓	QFN-10 (2x3)	Single-phase BLDC, for closed-loop applicaitions
MP6650	3.3	18	2	2	✓	TSOT23-6-L, TSOT23-6-R, TSOT23-6-SL, TSOT23-6-RSL	Single-phase BLDC, integrated Hall sensor
S **MP6651**	3.3	18	2	3	✓	QFN-10 (2x3), SOIC-8SL	Single-phase BLDC, for open-loop applicaitions
S **MP6652**	3	18	2	1.3	✓	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, integrated Hall sensor
S **MP6652A**	3	18	2	1.1	✓	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, integrated Hall sensor, enhanced ESD
S **MP6654**	3	18	2	1.1	✓	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, integrated Hall sensor, enhanced ESD
MP9517	3.3	18	2	2	✓	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, integrated Hall sensor
MP9518	3.3	18	2	1.2	✓	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, integrated Hall sensor
MP6630	2	5.5	3	1.4	✓	UTQFN-8 (2x3)	3-phase, for notebook applications, integrated Hall sensor
MP6630H	2	16	3	1.4	✓	UTQFN-8 (2x3)	3-phase, for notebook applications, integrated Hall sensor
S **MP6631**	3.5	24	3	3	✓	QFN-26 (3x4)	3-phase BLDC, external Hall sensor

MOTOR CONTROLLERS | MOTOR DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	f_{SW} (Max) (kHz)	Interface	ADC	Special Features	Grade	Package	Note
MP6570	3	3.6	80	SPI, I²C, RS485	10-bit	Up to 32 Prog Slave Addresses	Catalog	QFN-32 (4x4)	3-phase BLDC, high-accuracy angle sensor
N **MP6710**	3	3.6	80	RS485, External I/O	12-bit	Up to 127 Prog Slave Addresses	Catalog	TQFN-32 (4x4)	eMotion System™

N - New Product S - Sampling Product

SMART MOTOR MODULES & KITS | MOTOR DRIVERS

Smart Motor Module Evaluation Kits

Part Number	V_{IN} (Nom) (V)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Power (W)	Nominal Speed (RPM)	Operation Mode	Nominal Torque (Nm)	Peak Torque (Nm)	Position Resolution (deg)	Control Interface	Diameter (mm)	Length (mm)
EVKT-MSM957188-36	36	18	70	188	3000	Position & Speed Control	0.6	1.8	0.3	RS485	57	116
EVKT-MSM957141-36	36	18	70	141	3000	Position & Speed Control	0.45	1.35	0.3	RS485	57	96
EVKT-MSM957094-36	36	18	70	94	3000	Position & Speed Control	0.3	0.9	0.3	RS485	57	76
EVKT-MSM942038-24	24	18	36	38	3000	Position & Speed Control	0.12	0.36	0.3	RS485	42	40
EVKT-MSM942052-24	24	18	36	52	4000	Position & Speed Control	0.125	0.375	0.3	RS485	42	60
EVKT-MSM942077-24	24	18	36	77	4000	Position & Speed Control	0.185	0.555	0.3	RS485	42	80
EVKT-MSM942105-24	24	18	36	105	4000	Position & Speed Control	0.25	0.75	0.3	RS485	42	100

Smart Motor Modules

Part Number	V_{IN} (Nom) (V)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Power (W)	Nominal Speed (RPM)	Operation Mode	Position Resolution (deg)	Diameter (mm)
MMP757188-36-C	36	18	70	188	3000	Position & Speed Control	0.3	57
MMP757141-36-C	36	18	70	141	3000	Position & Speed Control	0.3	57
MMP757094-36-C	36	18	70	94	3000	Position & Speed Control	0.3	57
MMP742038-24-C	24	18	36	38	3000	Position & Speed Control	0.3	42
MMP742052-24-C	24	18	36	52	4000	Position & Speed Control	0.3	42
MMP742077-24-C	24	18	36	77	4000	Position & Speed Control	0.3	42
MMP742105-24-C	24	18	36	105	4000	Position & Speed Control	0.3	42

MAGALPHA SERIES | POSITION SENSORS

Position Sensor Magnets

Part Number	Magnetization	Geometry	Material	OD (mm)	ID (mm)	Height (mm)	Air Gap Min (mm)	Air Gap Max (mm)	Radial Tolerance (mm)	Notes
N **MAG10-2C-30.25**	Diametrical	Cylinder	NdFeB, Grade N35SH	3	-	2.5	0	2	0.1	-
N **MAG10-2C-40.25**	Diametrical	Cylinder	NdFeB, Grade N35SH	4	-	2.5	0	2.6	0.2	Standard-size, cost-effective
N **MAG10-2C-50.25**	Diametrical	Cylinder	NdFeB, Grade N35SH	5	-	2.5	0	3.1	0.2	Standard-size, cost-effective
N **MAG10-2C-60.25**	Diametrical	Cylinder	NdFeB, Grade N35SH	6	-	2.5	0	3.6	0.3	-
N **MAG10-2C-80.25**	Diametrical	Cylinder	NdFeB, Grade N35SH	8	-	2.5	0	4.5	0.4	-
N **MAG10-2R-50.12.25**	Diametrical	Ring	NdFeB, Grade N35SH	5	1.25	2.5	1	1.4	0.4	Accurate application
N **MAG10-2R-60.15.25**	Diametrical	Ring	NdFeB, Grade N35SH	6	1.5	2.5	1.3	1.6	0.6	Accurate application
N **MAG10-2R-80.20.25**	Diametrical	Ring	NdFeB, Grade N35SH	8	2	2.5	2	2.5	0.8	Accurate application
N **MAG10-2B-40.25**	Axial	Half-Cylinder	NdFeB, Grade N35SH	4	-	2.5	0	2.1	<0.1	Low field emission
N **MAG10-2B-50.25**	Axial	Half-Cylinder	NdFeB, Grade N35SH	5	-	2.5	0	2.7	<0.1	Low field emission
N **MAG10-2B-60.25**	Axial	Half-Cylinder	NdFeB, Grade N35SH	6	-	2.5	0	3.2	<0.1	Low field emission
N **MAG10-2B-80.25**	Axial	Half-Cylinder	NdFeB, Grade N35SH	8	-	2.5	0	4.2	0.1	Low field emission

MAGALPHA SERIES | POSITION SENSORS

MagAlpha Series

Part Number	Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (µs)	Temperature Range (°C)	Package	Notes
MA102	12-bit	SPI, UVW	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	Motor commutation angle sensor, UVW multi-pole pair, differential outputs
MA302	12-bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ & UVW incremental outputs
MA310	12-bit	SPI, UVW, ABZ	3 to 3.6	11.7	15+ (No Upper Limit)	93	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ & UVW incremental outputs
MA330	10-bit to 14-bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ & UVW incremental outputs
MA702	12-bit	SPI,SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ incremental & PWM outputs
MA704	10-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	2970	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ incremental & PWM outputs
MA710	12-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	15+ (No Upper Limit)	93	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ incremental & PWM outputs
MA730	14-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	40+ (No Upper Limit)	23	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ incremental & PWM outputs
MA732	10-bit to 14-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ incremental & PWM outputs
MA800	8-bit	SPI, SSI	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, SSI output, push-button function
MA820	8-bit	SPI, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, ABZ output, push-button function
MA850	8-bit	SPI, PWM	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Contactless angle sensor, PWM output, push-button function
(N) **MA780**	8-bit to 12-bit	SPI, VDDIO = 1.8V to V_{DD}	3 to 3.6	10	30+ (No Upper Limit)	5 to 160k	4 to 16000	-40 to +125	QFN-16 (3x3)	Contactless low-power angle sensor, integrated wake-up and IRQ
(N) **MA782**	8-bit to 12-bit	SPI, VDDIO = 1.8V to V_{DD}	3 to 3.6	10	30+ (No Upper Limit)	5 to 160k	4 to 16000	-40 to +125	QFN-14 (2x2)	Contactless low-power angle sensor, integrated wake-up and IRQ
MAQ430	12-bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +150	QFN-16 (3x3)	Automotive angle sensor, wettable flanks
MAQ470	12-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +150	QFN-16 (3x3)	Automotive angle sensor, wettable flanks
(N) **MAQ473**	10-bit to 14-bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +150	QFN-16 (3x3)	Automotive angle sensor, wettable flanks

(N) - New Product

CURRENT SENSORS

	Part Number	Current Range (A)	V_{CC} (V)	Accuracy (from 25°C to 125°C)	Temperature Range (°C)	Bandwidth (kHz)	Isolation Voltage (V)	Primary Conductor Resistance (mΩ)	Package	Notes
S	**MCS1800**	±12.5, ±25	3.3	3%	-40 to +125	100	1000	1.2	SOIC-8	Coreless, analog output, immune to external magnetic fields
S	**MCS1801**	±12.5, ±25	5	3%	-40 to +125	100	1000	1.2	SOIC-8	Coreless, analog output, immune to external magnetic fields
N	**MCS1802**	±5, ±10, ±20, ±30, ±40, ±50	3.3	2.5%	-40 to +125	100	2200	0.9	SOIC-8	Coreless, analog output, immune to external magnetic fields
N	**MCS1803**	±5, ±10, ±20, ±30, ±40, ±50	5	2.5%	-40 to +125	100	2200	0.9	SOIC-8	Coreless, analog output, immune to external magnetic fields
S	**MCQ1802 -AEC1**	±5, ±10, ±20, ±30, ±40, ±50	3.3	2.5%	-40 to +150	100	2200	0.9	SOIC-8	AEC-Q100, coreless, analog output, immune to external magnetic fields
S	**MCQ1803 -AEC1**	±5, ±10, ±20, ±30, ±40, ±50	5	2.5%	-40 to +150	100	2200	0.9	SOIC-8	AEC-Q100, coreless, analog output, immune to external magnetic fields

ANALOG SWITCHES | PRECISION ANALOG

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	t_{ON} (ns)	t_{OFF} (ns)	$R_{DS(ON)}$ (Max) (Ω)	Package	Notes
MP2735	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT
MP2736	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT, EN function

OPERATIONAL AMPLIFIERS | PRECISION ANALOG

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	GBW (kHz)	I_Q (Typ) (μA)	PSRR (dB)	Slew Rate (V/μs)	Offset Voltage (mV)	Package	Notes
MP8102	1.8	5.5	200	7.5	80	0.1	1	TSOT23-5	Ultra-low power, 600kHz
MP8130	2.7	36	100	10	80	0.1	1	TSOT23-5	Ultra-low power, 200kHz, high voltage
MP8110	2.5	40	12	0.05	0.5	-	-	SOIC-8, MSOP-8	High-side current sense

VOLTAGE REFERENCE | PRECISION ANALOG

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	Initial Accuracy (%)	Operating Current (mA)	Z_{OUT} (Ω)	Package	Notes
MP8201	1.2	12	1.2 to 10	0.5	0.06 to 20	1	SOT23	Precision adj., shunt voltage regulator, 1V shunt reference

USB/LOAD SWITCHES, USB PORT CONTROLLERS, USB PD CONTROLLERS, E-FUSES

USB/Load Switches — Single-Channel

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flags	Output Discharge	Package	Notes
MP62055	2.7	5.5	0.5	1.1	Active High	Over-Current, Active High	-	TSOT23-5	Small package, P2P with the TPS2051B
MP5075L	3	5.5	1	7	Active High	-	✓	SOT-563 (1.6x1.6)	OCP, thermal protection, small package
MP62550 MP62551	2.5	5.5	1.5	1.7	Active Low, Active High	Over-Current, Active Low	-	TQFN-6 (2x2), TSOT23-6	Precision adj. current-limited power distribution switch, 88/100mΩ at 100mA, 1.5µA max $I_{SHUTDOWN}$
MP5073	0.5	5.5	2	2	Active High	-	✓	QFN-12 (2x2)	Prog. current limit, power good, slew rate control
MP5083	0.5	5.5	2	Prog	Active High	-	✓	QFN-12 (2x2)	5% current monitoring (from 0.6A to full load), power good, slew rate control
MP5075	3	5.5	2.4	7	Active High	-	✓	SOT-563 (1.6x1.6)	OCP, thermal protection, small package
MP5077	0.5	5.5	7	13	Active High	-	✓	TQFN-12 (2x2)	Prog. current limit, slew rate control, fast-off protection
MP5087	0.5	5.5	7	7	Active High	-	✓	TQFN-12 (2x2)	5% current monitoring (from 1.5A to full load), power good, slew rate control, fast-off protection
MP5087A	0.5	5.5	7	7	Active High	-	✓	TQFN-12 (2x2)	Prog. current limit, slew rate control, fast-off protection
S **MP5096**	0.65	5.5	2	5	Active High	-	✓	CSP-4 (0.8x1)	Wide input
S **MP5097**	0.65	5.5	2	5	Active High	-	✓	SOT563 (1.6x1.6)	Wide input

USB/Load Switches — Dual-Channel

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flags	Output Discharge	Package	Notes
MP5095	0.5	5.5	2.3 (x2)	5	Active High	-	✓	TSOT23-8	Dual-channel, low I_Q, 30mΩ low $R_{DS(ON)}$, reverse-block connection
MP5090	0.5	5.5	3/2	5	Active High	-	✓	TQFN-8 (1.5x2), CSP (1.05x1.6)	Dual-channel, low I_Q, 30mΩ low $R_{DS(ON)}$, reverse-block connection, small package
MP5092	0.5	5.5	7.5 (x2)	7	Active High	-	✓	TQFN-18 (2x3)	Dual-channel, prog. current limit, slew rate control, fast-off protection

USB PD Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flags	Output Discharge	Package	Notes
S **MP5031**	4.5	5.5	5	-	Active High	-	✓	QFN-20 (4x4)	Supports USB Type-C and PD3.0 PPS, USB2.0 BC1.2 CDP and DCP mode, QC2.0/3.0/4.0, BC1.2 short mode, Apple charging, and Huawei FCP

N - New Product S - Sampling Product

USB/LOAD SWITCHES, USB PORT CONTROLLERS, USB PD CONTROLLERS, E-FUSES

USB Port Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flags	Output Discharge	Package	Notes
MP5034	3.6	14	-	6	Active High	-	-	TSOT23-8	Integrates QC 3.0 protocol
MP5030C	-	14	3	6	-	-	-	QFN-10 (1.5x2)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes
MP5032	3.6	14	3	6	Active High	-	-	TSOT23-8	QC 3.0 controller, integrated current-limit switch
MP5030D	-	14	3	6	Active High	-	-	QFN-10 (1.5x2)	Load detection, supports CDP and DCP modes
MP5029-C	3	22	3	3.65	Active High	✓	✓	QFN-14 (2x3)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes
MPQ5029-C	3	24	3	3.65	Active High	✓	✓	QFN-14 (2x3)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes, AEC-Q100

E-Fuses (Int. Hot-Swap)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flags	Output Discharge	Package	Notes
	MP5094	5/12	16/24	3/4	8	-	-	TSOT23-8	Dual-channel, over-voltage clamp, OCP hiccup mode
S	**MP5098**	4.6	13.8	4/3	8	Active Low	-	TQFN-10 (2x3)	Dual-channel current-limit switch with current monitor
	MP5013A	3	18	4.2	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	-	TSOT23-8	5V, 1A to 5A, 36mΩ $R_{DS(ON)}$, prog. current limit and slew-rate control, 5A/2.8A trip/hold current
	MP5014A	10	13.8	5	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	-	TSOT23-8	12V, 36mΩ $R_{DS(ON)}$, prog. current limit, over-voltage clamp, slew-rate control
	MP5016	2.7	15	5	8	-	✓	QFN-10 (1.5x2)	Over-voltage clamp, reverse-current blocking, thermal shutdown, auto-retry
	MP5016-L	2.7	22	5	8	-	✓	QFN-10 (1.5x2)	Latch-off OCP, over-voltage clamp, reverse-current blocking
	MP5016H	2.7	22	5	8	-	✓	QFN-10 (1.5x2)	UL certified, over-voltage clamp, reverse-current blocking, thermal shutdown, auto-retry
S	**MP5018**	4.5	5.5	5	Prog	Thermal Fault = Tri-State	-	QFN-12 (2x3)	Reverse-current blocking, 45mΩ $R_{DS(ON)}$, prog. current limit, latch-off OTP
	MP5017A	3	5.5	5	7.5	Over-Current, Over-Temperature, Output Over-Voltage	✓	QFN-12 (2x3)	Current-limit switch, over-voltage clamp, reverse-current blocking
S	**MP5035**	2.9	22	2	8	-	✓	TSOT23-6	Current-limit switch
	MP5036	2.9	14	5	8	-	✓	TSOT23-6	Fixed 15V over-voltage clamp, 0.4A to 5A prog. current limit, fast output OVP response
	MP5036A	2.9	5.5	5	8	-	✓	TSOT23-6	Fixed 5.75V over-voltage clamp, 0.4A to 5A prog. current limit, fast output OVP response
	MP5021B	4.8	16	10	Prog	Current Limit, Thermal Shutdown, Damaged MOSFET	✓	QFN-22 (3x5)	12V, 7mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
	MP5022A	8	16	15	Prog	Current Limit, Thermal Shutdown, Damaged MOSFET	✓	QFN-22 (3x5)	12V, 3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring, controlled R_{ON} mode

USB/LOAD SWITCHES, USB PORT CONTROLLERS, USB PD CONTROLLERS, E-FUSES

E-Fuses (Int. Hot-Swap)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flags	Output Discharge	Package	Notes
	MP5022C	4.5	16	15	36	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-22 (3x5)	3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
	MP5061	4.5	28	15	25	Current Limit Protection, Thermal Shutdown, Under-Voltage Protection, Damaged MOSFET	✓	QFN-22 (3x5)	Enable blanking time set and 36V input transient before V_{OUT} start-up, current monitoring
	MP5921	4	16	50	120	GOK Fault Flag, Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-28 (4x5)	1mΩ $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring, fault reporting
	MP5023	4	16	50	110	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	FCQFN-24 (4x5)	1.1mΩ hot-swap protection device, PMBus interface, current monitoring
N	**MP5048**	24	60	15	26	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-30 (5x5)	7mΩ $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, power-down control, current monitoring, prog. operation mode (latch-off/hiccup)

Hot-Swap Controllers

	Part Number	# of Channels	Interface	Package	Notes
N	**MP5920**	1	PMBus	TQFN-32 (4x4)	Parallel config., prog. via PMBus; built-in ADC for current, voltage, or temp reading, reports power and energy consumption

48V Modules

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	V_{OUT} (Min) (V)	V_{OUT} (Max) (V)	Output Power (Max) (W)	Isolated/ Non-Isolated	Notes
N	**MPC1100A-54-0000**	40	60	60	4	6	300	Non-Isolated	PMBus/I²C compatible, high efficiency, fixed ratio

HIGH-VOLTAGE ANALOG SWITCHES | ULTRASOUND MUX

Serial Shift Register Control

	Part Number	# of Channels	V_{DD} Bias (V)	V_{SIG} (Max) (V)	R_{SWITCH} (Ω)	Output Bleed Resistor	Switch Configuration	Bandwidth (MHz)	Package	Notes
	MP4816A	16	9.5	±90	12.5	✓	SPST	80	TQFP-48 (7x7)	16-bit
N	**MP4816**	16	9.5	±90	12.5	-	SPST	80	TQFP-48 (7x7)	16-bit
N	**MP4832A**	32	12	±90	14	✓	SPST	80	QFN-72 (10x10)	32-bit with bank switching
S	**MP4833A**	32	9.5	±90	12.5	✓	SPST	80	BGA-80 (7x7)	32-bit
S	**MP4835A**	32	5	±100	14	✓	SPST	80	QFN-72 (10x10)	32-bit with bank switching
S	**MP4864A**	64	12	±90	14	✓	SPST	80	BGA-144 (10x10)	64-bit

N - New Product S - Sampling Product

Part Number	L (µH)	R_{DC} (Typ) (mΩ)	I_R (40K Rise) (A)	I_{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-SE2512-R47	0.47	27	4.5	6.5	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-R68	0.68	33	3.8	4.3	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-1R0	1	45	3.35	4.2	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-1R5	1.5	62	2.9	3.2	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-2R2	2.2	92	2.5	2.7	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-3R3	3.3	158	1.8	2.4	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-4R7	4.7	205	1.6	1.9	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-100	10	400	1.1	1.3	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-150	15	620	0.85	0.9	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-220	22	1000	0.7	0.8	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE4030-1R0	1	12.5	6.3	7.5	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-2R2	2.2	30	3.9	5.5	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-3R3	3.3	39.8	3.45	4.1	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-4R7	4.7	63	2.6	3.7	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-6R8	6.8	83	2.4	3.3	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-100	10	97	2.2	2.4	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-150	15	185	1.6	1.95	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-220	22	219	1.5	1.65	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-R47	0.47	7.3	8	16	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-1R0	1	9.4	7.6	10.5	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-1R5	1.5	14	6.2	9.3	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-2R2	2.2	16	5.4	7.9	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-3R3	3.3	22	5.2	6.4	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-4R7	4.7	33	4.3	5	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-6R8	6.8	45	3.5	4.6	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-100	10	56	3.2	3.6	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-150	15	83	2.5	2.9	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-220	22	124	2.1	2.4	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-1R5	1.5	11.5	6.8	8.9	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-2R2	2.2	14.5	6.3	7.2	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-3R3	3.3	19.5	5.6	5.6	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-4R7	4.7	23	5.2	5	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-6R8	6.8	33	4.4	4.1	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-8R2	8.2	39	4	3.6	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-100	10	41	3.8	3.4	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics

SEMI-SHIELDED | INDUCTORS

Part Number	L (µH)	R_{DC} (Typ) (mΩ)	I_R (40K Rise) (A)	I_{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-SE6040-150	15	70	2.8	2.7	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-220	22	97	2.35	2.25	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics

MOLDED INDUCTORS | INDUCTORS

Part Number	L (µH)	R_{DC} (Typ) (mΩ)	I_R (40K Rise) (A)	I_{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AT2010-R47	0.47	27	4.4	5.7	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-R68	0.68	41	3.5	4.9	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-1R0	1	50	3.2	4.2	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-1R5	1.5	97	2.4	3.2	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-2R2	2.2	137	2.2	2.7	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-4R7	4.7	215	1.5	1.9	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2512-R33	0.33	13.5	6.4	8.5	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-R47	0.47	19	5.5	6.4	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-R68	0.68	26	4.7	6	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-1R0	1	35	4	5.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-1R5	1.5	56	3.2	4.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2514-2R2	2.2	70	2.6	3.4	125	2514	2.5	2	1.4	SMD	Low profile
MPL-AT2512-3R3	3.3	121	2	2.7	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2514-4R7	4.7	180	1.7	2.4	125	2514	2.5	2	1.4	SMD	Low profile
MPL-AT2512-6R8	6.8	280	1.4	2.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-100	10	355	1.2	1.7	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AY3020-R47	0.47	19.5	6.3	9	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-R68	0.68	26	5.15	8.6	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-R82	0.82	28	4.7	8	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-1R0	1	30	4.3	6.2	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-1R5	1.5	35	3.4	5.9	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-2R2	2.2	64	3	5.3	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-3R3	3.3	121	2.5	3.7	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-4R7	4.7	173	2	3.1	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-5R6	5.6	209	1.8	2.8	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-6R8	6.8	250	1.65	2.6	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-8R2	8.2	345	1.4	1.95	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-100	10	370	1.3	1.75	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY4020-5R6	5.6	97	2.45	2.6	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY4020-6R8	6.8	129	2.2	2.4	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY4020-8R2	8.2	136	2.1	2.1	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY4020-100	10	163	1.9	2	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities

Part Number	L (µH)	R_{DC} (Typ) (mΩ)	I_R (40K Rise) (A)	I_{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AY1050-R47	0.47	1.25	25	41	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-R68	0.68	1.75	23	36	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-1R0	1	2.6	19	33	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-1R5	1.5	3.4	17	26.5	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-2R2	2.2	4.9	15	19.5	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-3R3	3.3	8	12.5	17	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-4R7	4.7	9.5	11.5	15	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-5R6	5.6	13	9.8	14	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-6R8	6.8	15	9	13	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-100	10	19	7.8	12	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1265-R47	0.47	0.89	33	64	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R56	0.56	1.1	31	58	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R68	0.68	1.25	29	51	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R82	0.82	1.3	27	46	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R0	1	1.5	25.5	43	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R2	1.2	1.8	24	37	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R5	1.5	2.3	22	34	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R8	1.8	3.3	20	29	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-2R2	2.2	3.7	17	26.5	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-3R3	3.3	5.5	16	25	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-4R7	4.7	7	14	23	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-5R6	5.6	8.6	13	20	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-6R8	6.8	9.9	12	19.5	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-8R2	8.2	12.5	11.5	18	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-100	10	13.3	10.7	16	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-150	15	21.8	8.5	12	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-220	22	31.4	7	9	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AL4020-R47	0.47	6.2	9.2	12.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-R68	0.68	7.5	8.7	11	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-R82	0.82	9	8.4	9.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R0	1	10.1	7.9	8.6	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R2	1.2	12.2	7.4	7.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R5	1.5	14.5	6.4	7.1	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-2R2	2.2	21.5	5.5	6.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-3R3	3.3	34.5	4.4	5.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-4R7	4.7	52.2	3.65	4.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R47	0.47	3.78	13.6	26.5	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R56	0.56	3.92	13.2	22	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R82	0.82	5	12.8	18	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R0	1	6.5	11.2	16	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R2	1.2	8	10	14	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance

MOLDED INDUCTORS | INDUCTORS

Part Number	L (µH)	R_{DC} (Typ) (mΩ)	I_R (40K Rise) (A)	I_{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AL5030-1R5	1.5	9.7	9	12.5	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R8	1.8	10.5	8.8	12	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-2R2	2.2	12.3	8.2	11	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-3R3	3.3	21	6	10	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-4R7	4.7	33	5.3	8	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5050-5R6	5.6	20	6.8	8	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-6R8	6.8	25	6.1	7.6	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-8R2	8.2	28	5.8	7.2	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-100	10	37	4.8	5.5	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-R82	0.82	3.9	16.9	24	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R0	1	4.3	16.2	21	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R2	1.2	5.3	14.6	20	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R5	1.5	6	13.3	18	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-2R2	2.2	8.3	12	15	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-3R3	3.3	11.5	10.1	12	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-4R7	4.7	16.5	7.5	11	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-5R6	5.6	19	7	10	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-4R7	4.7	12	10	9	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-5R6	5.6	13	9.4	8.6	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-6R8	6.8	16	8.5	8	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-8R2	8.2	19	8	7	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-100	10	24	6.9	6.6	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-150	15	35	5.8	5.5	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance

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PART NUMBERING NOMENCLATURE

EXAMPLE

MP1234GQV–Z

① ② ③ ④ ⑤

① MP — Prefix

MP###		MPQ####	
MP####		HF####	
MP#####		NB###	

...see more at **MonolithicPower.com**

② 1234 — Part Number

③ G — Temperature Grade (T_A)

C	0°C to +70°C	**G**	-40°C to +125°C	Temperature Internal to Datasheet; (T_J) Standard
D	-40°C to +85°C	**H**	-40°C to +125°C	
E	-20°C to +85°C	**K**	-55°C to +125°C	

④ QV — Package (mm) and Features

C	WLCSP	**QH**	QFN (1.5x2)	**W**	SOIC-WB w/ Exposed Pad
D	QFN (2x3)	**QJ**	QFN (5x6)	**X**	Sorted Wafer
E	SC70	**QK**	QFN (6x6)	**XN**	Unsorted Wafer
F	TSSOP w/ Exposed Pad	**QM**	QFN (6x7)	**Y**	TO220
FP	QFP	**QN**	QFN (7x7)	**ZF**	TO263
G	QFN (2x2)	**QP**	QFN (7x8)	**C**	C-Spec
H	MSOP w/ Exposed Pad	**QQ**	QFN (8x8)	**E**	Enhanced
J	TSOT23 (0.9 Height)	**QV**	QFN (3x5)	**R**	Reserve Lead Bend or Top Exposed Pad
K	MSOP	**QW**	QFN (4x6)	**S**	Customer Specific
L	QFN (3x4)	**QX**	QFN (6x10)	**T**	Thin Package
M	TSSOP	**QY**	QFN (5x8)	**U**	Ultra-Thin Package
N	SOIC w/ Exposed Pad	**R**	QFN (4x4)		
P	PDIP (300 Mil)	**S**	SOIC		
Q	QFN (3x3)	**SD**	SOD123		
QD	QFN (1x1.5)	**T**	SOT23 (1.1 Height)		
QF	QFN (1.2x1.6)	**U**	QFN (5x5)		
QG	QFN (1.4x1.8)	**V**	QFN (4x5)		

...more package and feature details can be found at **MonolithicPower.com**

⑤ –Z — Tape & Reel

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