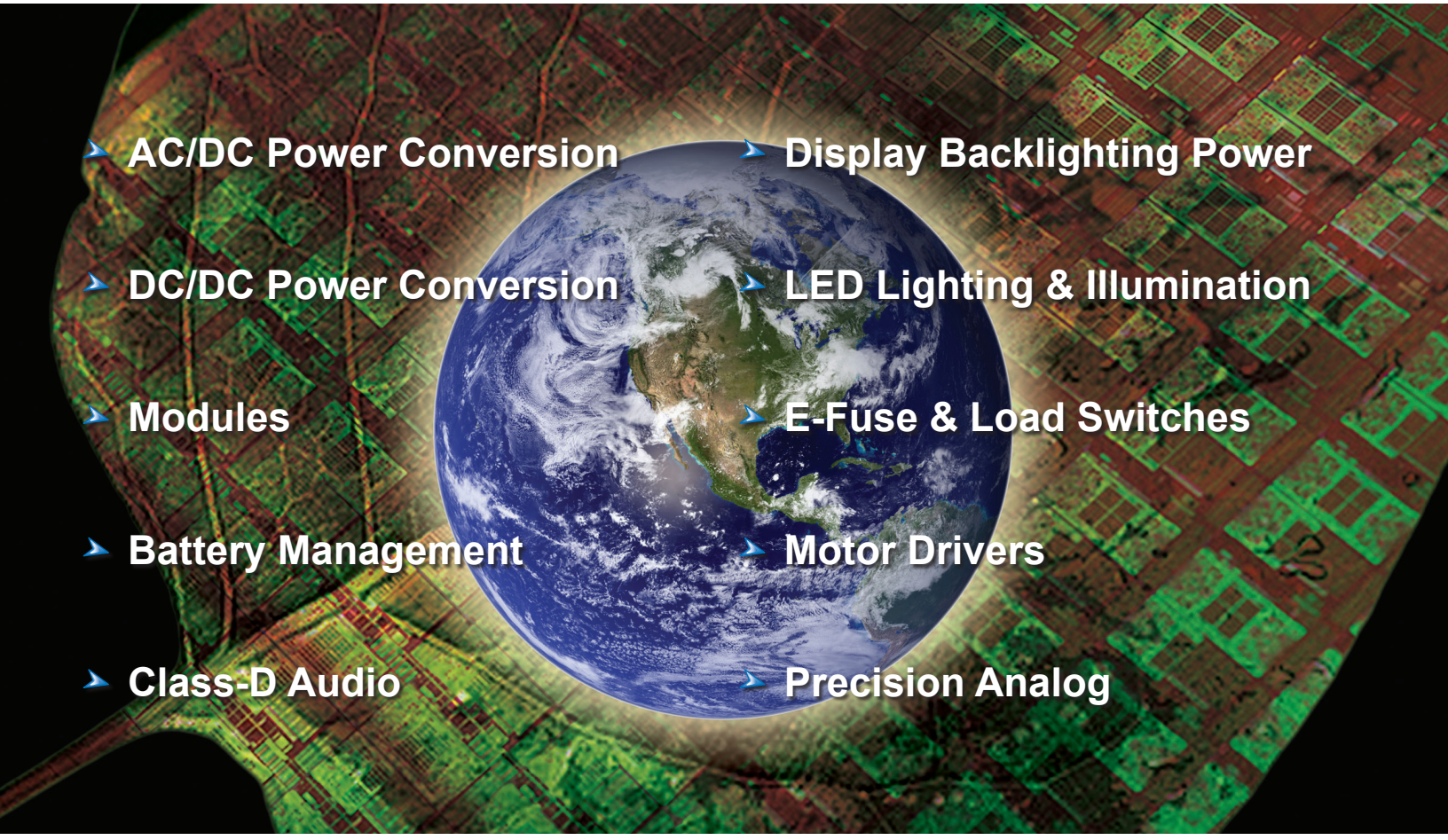
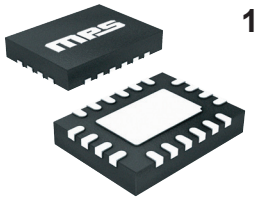
The Future of Analog IC Technology®

Product Selector Guide

Power Management Solutions for Worldwide Applications



Monolithic Power Systems, Inc.



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AC/DC POWER CONVERSION

EASYPOWER

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Power (W)	Control Method	Rds(on) (Ω)	High-Voltage Startup	No Load Power (mW)	Notes	Package
EasyPower	MP100	-	-	Up to 0.5	Smart LDO	9.5	Yes	100	85_{AC}-305_{AC}, Inductor-Less Regulator for Low-Power Applications, (EasyPower) Not Recommended for New Design / Recommend MP100L	SOIC8E
NEW EasyPower	MP100L	-	-	Up to 0.5	Smart LDO	9.5	Yes	100	85_{AC}-305_{AC}, Inductor-Less Regulator for Low-Power Applications, (EasyPower)	SOIC8E
NEW EasyPower	MP103	-	-	Up to 1	Smart LDO	-	Yes	100	85_{AC}-305_{AC}, Inductor-Less Controller for Low-Power Applications, (EasyPower)	SOIC8E
EasyPower	MP150	5.3	6.5	Up to 2	Non-Isolated Buck	30	Yes	150	85_{AC}-305_{AC}, Primary-Side Regulator for Low-Power Application, (EasyPower)	TSOT23-5 SOIC8
EasyPower	MP153	4.5	6.5	Up to 6	Non-Isolated Buck	15	Yes	150	Universal Input, Smallest Energy Efficient, Regulator with Extended Power Range, (EasyPower)	TSOT23-5 SOIC8
EasyPower	MP155	5.3	6.5	Up to 3	Non-Isolated Buck	20	Yes	100	Universal Input, Energy Efficient, Primary-Side Regulator, (EasyPower)	TSOT23-5 SOIC8
EasyPower	MP156	5.3	6.5	Up to 3	Non-Isolated Buck	20	Yes	30	Universal Input, Smallest Energy Efficient, (EasyPower)	TSOT23-5 SOIC8
EasyPower	MP157	4.45	6.5	Up to 6	Non-Isolated Buck	10	Yes	100	Universal Input, Smallest Energy Efficient, Regulator with Extended Power Range, (EasyPower)	TSOT23-5 SOIC8

FLYBACK

Flyback Secondary-Side Regulation

Part Number	Typ Max Power (W)	Type	V_{AC} (Min) (V)	V_{AC} (Max) (V)	Switching Freq (Max) (kHz)	Control Method	V_{BR} (V)	V_{CC} (Max) (V)	R_{FB} (kΩ)	Notes	Package
HFC0100	120	Controller	85	265	-	Quasi-Resonant	700	22	10	Quasi-Resonant Flyback Controller	SOIC8
HFC0300	120	Controller	85	265	-	Variable Freq	700	30	-	Variable Off Time Flyback Controller	SOIC-7
HFC0310	120	Controller	85	265	600	Fixed Freq	-	30	14	Fixed Frequency Flyback Controller, Low Standby Power	SOIC8
HFC0400	120	Controller	85	265	65	Fixed Freq	700	30	13	Fixed Frequency Flyback Controller with Ultra Low No-Load Power Consumption	SOIC8-7A

Quasi-Resonant Flyback Regulator

Part Number	Typ Max Power (W)	Type	V_{AC} (Min) (V)	V_{AC} (Max) (V)	Switching Freq (Max) (kHz)	Control Method	V_{BR} (V)	V_{CC} (Max) (V)	Rds(on) (Ω)	Notes	Package
HF01B00	23	Regulator	85	265	150	Quasi-Resonant/ Flyback	700	22	1.9	Universal Input, Flyback, Low Standby Power, Power Dependent on Open Frame	PDIP8-7B
HF01B01	18	Regulator	85	265	150	Quasi-Resonant/ Flyback	700	22	3.3	Universal Input, Flyback, Low Standby Power, Power Dependent on Open Frame	PDIP8-7B
HF01B02	14	Regulator	85	265	150	Quasi-Resonant/ Flyback	700	22	5.5	Universal Input, Flyback, Low Standby Power, Power Dependent on Open Frame	PDIP8-7B
HF01B03	11	Regulator	85	265	150	Quasi-Resonant/ Flyback	700	22	7.7	Universal Input, Flyback, Low Standby Power, Power Dependent on Open Frame	PDIP8-7B
HF01B04	8	Regulator	85	265	150	Quasi-Resonant/ Flyback	700	22	11	Universal Input, Flyback, Low Standby Power, Power Dependent on Open Frame	PDIP8-7B SOIC8-7B

Primary-Side Regulation

Part Number	P_{OUT} (Max) (W)	V_{AC} (Min) (V)	V_{AC} (Max) (V)	Switching Freq (Max) (kHz)	Rds(on)	I_{SW} Limit (A)	V_{FB} (V)	V_{BR} (V)	V_{CC} (Max) (V)	Notes	Package
MP020-5	7	85	265	75	10	0.38	4	700	700	Primary-side regulator with CV/CC control	SOIC8-7A

LLC With 600V HALF-BRIDGE DRIVERS

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Rsrc/Rsink (Ω)	Control Method	Topology	High-Voltage Startup	Notes	Package
HR1000	8.9	15.5	4/2	Resonant	LLC	No	Universal Input, Half-Bridge Controller, Variable Frequency, High-Power Application, Not Recommended for New Design / Contact Factory.	SOIC16
HR1000A	8.9	15.5	4/2	Resonant	LLC	No	Universal Input, Half-Bridge Controller, Variable Frequency, High-Power Application	SOIC16

PFC

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	$I_{GATE\ SRC}$ / $I_{GATE\ SINK}$ (mA)	Control Method	Topology	High-Voltage Startup	Notes	Package
MP44010	10	22	-350 / 600	Boundary Mode	Boost / Buck Boost	No	Universal Input, PFC Controller, Ultra Low Start-Up Current (15μA)	SOIC8 DIP8
MP44011	10	22	-350 / 600	Boundary Mode	Boost / Buck Boost	No	Universal Input, PFC Controller, Harmonic Injection Function, (Reduced Capacitor Value and Inductor Size Compared with MP44010)	SOIC8

POWER SAVERS

Part Number	V(BR) DSS(V)	VGS (V)	Rds(on)	Control Method	ISC (mA)	Supply (μA)	Pin Voltage (V)	Notes	Package
LN60A01	600	1	190	-	-	-	-	600V, Triple N-Channel MOSFET with Common Gate Control	SOIC8 DIP8

AC/DC POWER CONVERSION

LED LIGHTING & ILLUMINATION

AC/DC Isolated

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package
MP4021	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC, Not Recommended for New Design / Contact Factory	SOIC8
MP4021A	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC, Recommend Next Generation Products MP4026 and MP4027	SOIC8
MP4026	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC	SOT23-6
MP4027	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC, NTC and PWM Dimming	SOT23-8
MP4030	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	TRIAC Dimmable, Deep Dimming, Primary-Side Control Offline LED Controller with Active PFC, Recommend Next Generation Product MP4030A	SOIC8
MP4030A	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	Improved TRIAC Dimming Performance, Primary-Side Control Offline LED Controller with Active PFC	SOIC8
MP4031	85_{AC}	265_{AC}	Ext. FET	Flyback	Controller	TRIAC and Analog Dimmable, Deep Dimming, Primary-Side Control Offline LED Controller with Active PFC	SOIC8
MP4032-1	85_{AC}	120_{AC}	7	Flyback	Regulator	Integrated 500V FET, TRIAC Dimmable, Deep Dimming, Primary-Side Control Offline LED Controller with Active PFC	SOIC8-7A
MP4034	85_{AC}	120_{AC}	7	Flyback	Regulator	Offline Primary-Side Isolated LED Driver IC	SOIC8-7A
HR2000	10	12	Ext. FET	Resonant	Controller	PFC + Resonant Half-Bridge Fluorescent Lamp Driver, High-Power Application	SOIC16
HR1000A	8.9	15.5	Ext. FET	Resonant	Controller	Resonant Half-Bridge Controller, Variable Frequency, High-Power Application	SOIC16
MP44010	10	22	Ext. FET	Boost / Buck Boost	Controller	Offline PFC Controller, Boundary Conduction, Ultra Low Start-Up Current (15µA)	SOIC8 DIP8
MP44011	10	22	Ext. FET	Boost / Buck Boost	Controller	Offline PFC Controller, Boundary Conduction, Harmonic Injection Function, (Reduced Capacitor Value and Inductor Size Compared with MP44010)	SOIC8

AC/DC Non-Isolated

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package
MP4000	85_{AC}	265_{AC}	Ext. FET	Low-Side Buck	Controller	Universal Input, Non-Isolated WLED Driver Controller for Lowest Cost LED Lamps DC and PWM Dimming	SOIC8
MP4001	85_{AC}	265_{AC}	Ext. FET	Low-Side Buck	Controller	Offline LED Controller with Integrated High Voltage LDO and DC/PWM Dimming	SOIC8
NEW MP4050	85_{AC}	265_{AC}	7	Buck	Regulator	Cost-Effective Non-Isolated Offline LED Controller	SOIC8 SOT23-5
MP4051	85_{AC}	265_{AC}	Ext. FET	Buck Boost	Controller	Non-Isolated Offline LED Controller with Active PFC	SOIC8

DC/DC Lighting

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package
MP3412	0.8	4.4	-	Boost	Regulator	1.1A, 1MHz Sync Boost WLED Driver with Output Disconnect	TSOT23-6
MP2480	5	36	-	Buck	Regulator	3A Output Current, 3% Current Accuracy, Hysteretic Control	SOIC8E
MP2481	4.5	36	-	Buck-Boost	Regulator	Buck-Boost WLED Halogen Replacement up to 5W	MSOP8
MP24892	4.5	36	-	Low-Side Buck	Regulator	Lower Voltage Higher Current, Lower Cost version of MP2489	TSOT23-5
MP24893	6	36	-	Low-Side Buck	Regulator	Hysteretic, Low-Side Buck for Minimal Ext., Low Cost Version of MP2489	QFN6 (3x3) TSOT23-5
MP2483	4.5	55	-	Buck, Buck-Boost	Regulator	DC and PWM Dimming Control Using One Single Pin, Consumer Grade	QFN10 (3x3) SOIC14
AEC-Q100 MPQ2483	4.5	55	-	Buck, Buck-Boost	Regulator	DC and PWM Dimming Control Using One Single Pin, Available in AEC-Q100	QFN10 (3x3) SOIC14
MP24183	4.5	55	-	Buck, Buck-Boost	Regulator	DC and PWM Dimming Control Using One Single Pin	QFN10 (3x3)
MP2488	4.5	55	-	Buck	Regulator	Up to 97.5% Efficiency, 220mΩ Internal Power MOSFET	QFN10 (3x3) SOIC8E
MP2487	4.5	55	-	Buck	Regulator	Up to 97.5% Efficiency, 220mΩ Internal Power MOSFET	SOIC8E
MP4012	8	55	Ext. FET	Boost & Other Topologies	Controller	HV9912 Pin Comp, for Backlight (Ex: Vout >200V) and Lighting (High-Output Power)	SOIC16
MP2489	6	60	-	Low-Side Buck	Regulator	Hysteretic, Low-Side Buck for Minimal Ext., Component & Fast Transient Response	QFN6(3x3) TSOT23-5 SOIC8E
MP24894	6	60	Ext. FET	Low-Side Buck	Controller	Step-Down WLED Current Controller with Wide 6V to 60V Input Voltage	TSOT6
MP4688	4.5	75	-	Buck	Regulator	MPS Adaptive Hysteretic for High-Output Current Accuracy	SOIC8E
MP4689	4.5	95	-	Buck	Regulator	MPS Adaptive Hysteretic for High-Output Current Accuracy	SOIC8E

AC/DC POWER CONVERSION

LED LIGHTING & ILLUMINATION (Continue)

Photo Flash

Part Number	Charge Type	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{SW} (Max) (V)	V_{OUT} (Max) (V)	I_{OUT} (Max) (A)	I_{OUT} (Min) (A)	Notes	Package
MP3361	Xenon Flash	2.5	6	60	300	1.2	1.0 (Typ)	300V, 1A, Highly Integrated Xenon Photo Flash Charger and IGBT Driver	MSOP10
MP3360	Xenon Flash	2.5	6	60	300	1.7	0.4	60V, Programmable Peak Current, Highly Integrated Xenon Photo Flash Charger and IGBT Driver for Mobile Phones	QFN10 (2x2)
MP3356	Xenon Flash	2.8	6	50	300	1.7	1.5	50V, Fixed 1.5A, Highly Integrated Xenon Photo Flash Charger and IGBT Driver for DSC	QFN10 (2x2)
MP3351	Xenon Flash	3	6	60	300	2	0.3	60V, 2A Integrated Photo Flash Charger with IGBT Driver	QFN16 (3x3)
MP3352	Xenon Flash	3	6	60	300	2.5	0.3	60V, 2.5A Integrated Photo Flash Charger with IGBT Driver and Quench	QFN16 (3x3)

Protection

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package
MP4690	-	-	-	Shunt	-	Smart Bypass for LED Protection 6V Threshold Voltage Protects One LED	SOD123

SYNCHRONOUS RECTIFIERS

Synchronous Rectifiers Flyback Topology

Part Number	P_{OUT} (Max) (W)	Type	Switching Freq (Max) (kHz)	Drain Rating	Operating Current (mA)	I_Q (mA)	V_{DD} (Min) (V)	V_{DD} (Max) (V)	Rds(on) (mΩ)	Notes	Package
MP6900	120	Controller	400	180	8	2	6	27	Ext. FET	Fast Turn-Off Intelligent Rectifier for Flyback	QFN6 (3x3)
MP6901	120	Controller	400	180	8	2	6	27	Ext. FET	High Noise Immunity, Fast Turn-Off Intelligent Rectifier for Flyback	TSOT23-5
MP6902	120	Controller	300	180	8	0.25	6	27	Ext. FET	Fast Turn-Off Intelligent Rectifier with Light Load Management for Flyback	SOIC8
MP6960	250	Controller	400	180	8	8	8	24	Ext. FET	Fast Turn-Off Intelligent Rectifier with CC/CV Controller	SOIC8
MP6910	250	Regulator	300	180	8	0.25	6	27	10	Fast Turn-Off Intelligent Rectifier, with 10mΩ 100V FET, VOUT up to 19V	TO220-3
MP6920	250	Regulator	300	60	5	-	8	24	10	Fast Turn-Off Intelligent Rectifier with Integrated 10mΩ 60V FET, VOUT up to 12V	SOIC8E
MP6914	500	Regulator	-	30	1	0.09	6	24	5.3	Ideal Diode for Solar Panel Bypass	SOIC8E

Synchronous Rectifiers LLC Topology

Part Number	P_{OUT} (Max) (W)	Type	Switching Freq (Max) (kHz)	Drain Rating	Operating Current (mA)	Min-on-Time (ns)	I_Q (mA)	Shutdown	Notes	Package
MP6903	400	Controller	Up to 300	180	8	1000	0.25	150	High Noise Immunity, Fast Turn-off Intelligent Rectifier with Light Load Management for LLC	SOIC-8E
MP6922	400	Controller	Up to 300	180	16	1000	0.5	300	Dual Fast Turn-off Intelligent Rectifier, Vfwd 70mV for LLC	SOIC8E SOIC14
MP6922A	400	Controller	Up to 300	180	16	1000	0.5	300	High-Eff, Dual Fast Turn-off Intelligent Rectifier, Vfwd 30mV for LLC	SOIC8E SOIC14

DC/DC POWER CONVERSION

CONTROLLERS & INTELLI-PHASE

CPU Core (Controllers)

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	I_Q (Typ) (mA)	Shut Down (Typ) (mA)	F_{SW} (kHz)	Soft Start	Reg Output Phase	Notes	Package
MP2930	4.75	5.25	18	14	80 to 1000	External	4	4-Phase PWM Controller with 8-Bit DAC Code for VR10 and VR11	QFN40 (6x6)
MP2932	4.75	5.25	18	14	80 to 1000	External	6	6-Phase PWM Controller with 8-Bit DAC Code for VR10 and VR11	QFN48 (6x6)
NEW MP2935	4.5	5.25	8	0.05	200 to 2000	Internal	4	4-Phase PWM Controller for VR12.5 Applications	QFN40 (6x6)

CPU Core Power (Intelli-Phase)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	I_{SD} (Typ) (mA)	V_{FB} (V)	F_{SW} (kHz)	Sync	Notes	Package
MP86963	4.5	21	20	-	0.551	-	100 to 1000	√	Integrated HS/LS FETs and Driver, 20A, 21V Intelli-Phase, 3.3V PWM Logic	TQFN (5x5)
MP86885	4.5	14	40	60	0.055	-	100 to 1000	√	Integrated HS/LS FETs and Driver, 40A, 14V Intelli-Phase, 3.3V PWM Logic	TQFN (4x6)
MP86884	4.5	14	55	80	0.06	-	100 to 1000	√	Integrated HS/LS FETs and Driver, 55A, 14V Intelli-Phase, 5V PWM Logic	TQFN (6x6)
MP86884-3	4.5	14	55	80	0.06	-	100 to 1000	√	Integrated HS/LS FETs and Driver, 55A, 14V Intelli-Phase, 3.3V PWM Logic	TQFN (6x6)

SWITCHING REGULATORS

Step-Down Converters

Maximum Operating Input Voltage 1.1V ≤ Vin ≤ 7V

							Features								
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	Synchronous Rectification	External Freq Sync	Constant On-Time (COT)	Notes	Package
MP28119	2.5	6	0.6	0.4	0.6	1700				√			Ultra-Small 1.7MHz, 600mA, 1.0V and 1.2V Fixed Output Versions, Synchronous Step-Down Converter	QFN2x2-8
MP28114	2.5	6	0.6	0.4	0.6	1700				√			Ultra-Small 1.7MHz, 600mA, 1.5V,1.8V and 3.3V Fixed Output Versions, Synchronous Step-Down Converter	QFN2x2-8
MP2104	2.5	6	0.6	0.4	0.6	1700				√			1.7MHz, 600mA Synchronous Step-Down Converter	TSOT23-5 TQFN-6
AEC-Q100 MPQ2128	2.5	6	1	0.35	0.594	3000				√			2.5V to 6V Input, 3MHz, 1A Synchronous, Step-Down Converter with AEC-Q100 Qualification	QFN2x2-8
MP2158	2.5	6	1	0.017	0.6	1500	√		√	√		√	High Efficiency,1A, 6V, 1.5MHz,17µA Iq, COT Synchronous Step-Down Converter with PG in Ultra-Small QFN Package	QFN2.0x1.5-8
MP2149	2.7	6	1	0.045	0.608	1000			√	√			MP2149 - 6V, 1A Dual Channel, 1MHz, Low Iq, PWM Sync Buck with High-Efficiency	TSOT23-8
MP2160	2.7	6	1.2	0.017	0.6	3500	√		√	√		√	1.2A Peak, 6V, 3.5MHz, COT, Synchronous Step-Down Converter	QFN2.0x1.5-8
MP2144	2.5	5.5	2	0.04	0.6	1200	√			√		√	2A, 5.5V, 1.2MHz, 40µA Iq, High Efficiency, COT Synchronous Step-Down Converter with PG and Auto Discharge	TSOT23-8
MP2162	2.5	6	2	0.017	0.6	1500	√		√	√		√	High Efficiency,2A, 6V, 1.5MHz,17µA Iq, COT Synchronous Step-Down Converter with PG in Ultra-Small QFN Package	QFN2.0x1.5-8
MP2122	2.7	6	2	0.045	0.608	1000			√	√			6V, 2A Dual Channel, 1MHz, Low Iq, PWM Sync Buck with High Efficiency	TSOT23-8
MP2115	2.8	6	2	0.8	0.607	Prog.	√			√			2A, 6V, 0.7-2MHz Step-Down Converter with Programmable Input Current Limit	QFN3x3-10
MP2143	2.5	5.5	3	0.04	0.6	1200	√		√	√		√	3A, 5.5V, 1.2MHz, 40µA Iq, High Efficiency, COT Synchronous Step-Down Converter with PG and Auto Discharge	TSOT23-8
MP2130	2.7	6	3.5	0.04	0.6	1200	√		√	√		√	6V, 3.5A, 1.2MHz, COT Synchronous Step-Down Converter with PG	QFN2x2-12
NEW MP2147	2.8	5.5	4	0.04	0.6	1200	√		√	√		√	5.5V, 4A, 1.2MHz, 40µA Iq COT Sync, Step-Down Switcher with Pre-bias Start-Up, Output Discharge, and Dynamic Voltage Scaling	QFN2x3-12
NEW MP2145	2.8	5.5	6	0.04	0.6	1200	√		√	√		√	5.5V, 6A, 1.2MHz, 40µA Iq COT Sync, Step-Down Switcher with Pre-Bias Start-Up, Output Discharge, and Dynamic Voltage Scaling	QFN2x3-12
MPQ8616-6	3	6	6	1.05	0.61	Prog.	√	√		√		√	6A, 6V, CCM, Non-latch OVP and OCP, COT Sync Step-Down Converter	QFN3x4-14
MPQ8616-12	3	6	12	1.05	0.61	Prog.	√	√		√		√	12A, 6V, CCM, Non-latch OVP and OCP, COT Sync Step-Down Converter	QFN3x4-14
MPQ8612-12	3	6	12	1.1	0.608	1000	√	√	√	√		√	12A, 6V, DCM, Non-latch OVP and OCP, COT Sync Step-Down Converter	QFN3x4-14
NEW MPQ8612-16	3	6	16	1	0.61	Prog.	√	√	√	√		√	16A, 6V, DCM, Non-latch OVP and OCP, COT Sync Step-Down Converter	QFN4x4-17
NEW MPQ8612-20	3	6	20	1	0.61	Prog.	√	√	√	√		√	20A, 6V, DCM, Non-latch OVP and OCP, COT Sync Step-Down Converter	QFN4x4-17

Maximum Operating Input Voltage ≤ 28V

MP2357	4.5	24	0.5	0.8	0.81	1400							0.5A, 24V, 1.4MHz Step-Down Converter	TSOT23-6 SOT23-6
NEW MP2313	4.5	24	1	0.2	0.8	2000			√	√			High-Efficiency 1A, 24V, 2MHz Synchronous Step-Down Converter with Light-Load Mode	TSOT23-8
MP2359	4.5	24	1.2	0.8	0.81	1400							1.2A, 24V, 1.4MHz Asynchronous Step-Down Converter	TSOT23-6 SOT23-6
NEW MP2106	2.6	15	1.5	1.2	0.895	800		√		√			1.5A, 15V, 800kHz, Synchronous Buck Converter	MSOP10 QFN3x3-10
MP1469	4.7	16	1.5	0.83	0.8	500			√	√			4.7V to 16V, 500kHz, 1.5A Sync Buck	TSOT23-6
MP2234	4.5	16	2	0.6	0.807	800		√	√	√	√		High-Efficiency, 2A, 16V, 800kHz, with SS, Synchronous Step-Down Converter with Internal Light-Load	TSOT23-8
MP2228	6	16	2	0.55	0.807	800		√	√	√			High-Efficiency, 2A, 16V, 800kHz, Synchronous, Step-Down Converter with External Soft Start and Light-Load Mode	TSOT23-8
MP1498	4.5	16	2	0.8	0.807	1400		√		√	√		High-Efficiency, 2A, 16V, Higher Fsw 1.4MHz, with SS, Synchronous Step-Down Converter	TSOT23-8

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUE)

Step-Down Converters (Continue)

Maximum Operating Input Voltage ≤ 28V (Continue)

	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)	Features: Power Good	External Soft Start	Light-Load Efficiency	Synchronous Rectification	External Freq Sync	Constant On-Time (COT)	Notes	Package
NEW	MP1494S	4.5	16	2	0.5	0.8	500			√	√	√		High-Efficiency, 2A,16V,500kHz, with AAM (Light-Load Mode) Synchronous Step-Down Converter	TSOT23-8
	MP1474	4.5	16	2	0.6	0.807	500	√		√	√	√		High-Efficiency, 2A, 16V, 500kHz Sync Step-Down Converter	TSOT23-8
NEW	MP2318	4.5	24	2	0.2	0.8	2000			√	√			High-Efficiency 2A, 24V, 2MHz Synchronous Step-Down Converter with Light-Load Mode	TSOT23-8
	MP2314	4.5	24	2	0.18	0.791	500			√	√	√		High-Efficiency 2A, 24V, 500kHz,with AAM (Light-Load Mode), Synchronous Step Down Converter	TSOT23-8
	MP2240	6	16	3	0.75	0.807	800		√	√	√			High-Efficiency, 3A, 16V, 800kHz, Synchronous, Step-Down Converter with External Soft Start and Light Load Mode	TSOT23-8
	MP2235	4.5	16	3	0.6	0.807	800		√	√	√	√		High-Efficiency, 3A, 16V, 800kHz, with SS, Synchronous Step-Down Converter with Internal Light Load	TSOT23-8
	MP2233	4.5	16	3	0.6	0.807	1400		√		√	√		High-Efficiency, 3A, 16V, Higher Fsw 1.4MHz, with SS, Synchronous Step-Down Converter	TSOT23-8
	MP1497	4.5	16	3	0.7	0.807	500		√		√	√		High-Efficiency, 3A, 16V, 500kHz,with SS, Sync Step-Down Converter	TSOT23-8
	MP1493	4.2	16	3	1	0.805	Prog.			√	√		√	High-Efficiency, Fast Transient, 3A, 16V Synchronous Step-Down Converter with Programmable Frequency, OCP Latch-Off	SOIC8
	MP1475	4.5	16	3	0.6	0.807	500	√		√	√	√		High Efficiency, 3A, 16V, 500kHz Sync Step-Down Converter	TSOT23-8
NEW	MP28258-A	4.2	20	3	0.36	0.815	Prog.	√		√	√		√	3A, 4.2V to 20V, COT, Sync Step-Down Converter with Hiccup OCP and Programmable Frequency	QFN2X3-12
	MP2315	4.5	24	3	0.18	0.791	500			√	√	√		High Efficiency 3A, 24V, 500kHz,with AAM (Light-Load Mode), Synchronous Step-Down Converter in TSOT23-8	TSOT23-8
	MPQ8632-4	2.5	18	4	0.86	0.611	Prog.	√	√	√	√			4A, 2.5-18V, DCM, Non-Latch OVP, COT Synchronous Step-Down Converter	QFN3x4-13 QFN3x4-16
	MP9151	4.5	20	4	0.7	0.795	Prog.	√	√	√	√			20V, 4A Synchronous, Step-Down Converter with PG and SS	QFN2x3-14
	MP8715	4.5	21	4	0.66	0.805	500	√	√		√	√		100% Duty Cycle Synchronous 4A, 21V, 500kHz Step-Down Converter	SOIC8E QFN3x4-14
	MP1499	4.5	16	4	0.6	0.807	500		√	√	√	√		High Efficiency, 5A peak, 16V, 500kHz Synchronous Step Down Converter	QFN2x3-10
	MP8760	4.5	18	6	0.86	0.611	Prog.	√	√	√	√		√	High Efficiency, 6A, 18V Synchronous Step-Down Converter with Programmable Frequency	QFN 3x4-13 QFN 3x4-16
	MPQ8632-6	2.5	18	6	0.86	0.611	Prog.	√	√	√	√		√	6A, 2.5-18V, DCM, Non-Latch OVP, COT Synchronous Step-Down Converter	QFN3x4-13 QFN3x4-16
NEW	MP8765	5	24	6	0.16	0.604	500	√		√	√		√	24V, 6A High Efficiency Synchronous Step-Down Converter with Hiccup OCP, PWM/PFM Mode Pin and Output Discharge	QFN 3x3-16
	NB671L	5.5	24	6	0.24	0.604	500	√		√	√		√	Wide Vin 5.5-24V, 6A, COT Synchronous Step-Down Converter with Low Quiescent Current	QFN3x3-16
	MP8761	4.5	18	8	0.86	0.611	Prog.	√	√	√	√		√	High Efficiency, 8A, 18V Synchronous Step-Down Converter	QFN 3x4-13 QFN 3x4-16
	MPQ8636H-10	4.5	18	10	0.86	0.611	Prog.	√	√		√		√	10A, 4.5-18V,CCM, Non-Latch OVP, COT Sync Step-Down Converter	QFN3x4-13 QFN3x4-16
	MPQ8636-10	4.5	18	10	0.86	0.611	Prog.	√	√		√		√	10A, 4.5-18V,CCM, Latch-Off OVP, COT Sync Step-Down Converter	QFN3x4-13 QFN3x4-16
	MPQ8632H-10	2.5	18	10	0.86	0.611	Prog.	√	√	√	√		√	10A, 2.5-18V, DCM, Latch-Off OVP, COT Sync Step-Down Converter	QFN3x4-13 QFN3x4-16
NEW	MPQ8632-10	2.5	18	10	0.86	0.611	Prog.	√	√	√	√		√	10A, 2.5-18V, DCM, Non-Latch OVP, COT Sync Step-Down Converter	QFN3x4-13 QFN3x4-16
	MP8762	4.5	18	10	0.86	0.611	Prog.	√	√	√	√	√	√	High Efficiency, 10A, 18V Sync Step-Down Converter	QFN 3x4-13 QFN 3x4-16
	NB675	5	24	10	0.4	0.604	500	√		√	√		√	Wide Vin 5-24V, 10A, COT Synchronous Step-Down Converter with +/-1.5A LDO and Buffed Reference	QFN3x4-21
NEW	MP8763	4.5	18	12	0.86	0.611	Prog.	√	√	√	√		√	High Efficiency, 12A, 18V Synchronous Step-Down Converter	QFN 3x4-13 QFN 3x4-16
	MPQ8632-12	2.5	18	12	0.86	0.611	Prog.	√	√	√	√		√	12A, 2.5-18V, DCM, Non-Latch OVP, COT Syncs Step-Down Converter	QFN3x4-13 QFN3x4-16
	MPQ8632-20	2.5	18	15	0.86	0.611	Prog.	√	√	√	√		√	20A, 2.5-18V, DCM, Non-Latch OVP, COT Sync Step-Down Converter	QFN5x4-25 QFN5x4-29
	MPQ8632-15	2.5	18	15	0.86	0.611	Prog.	√	√	√	√		√	15A, 2.5-18V, DCM, Non-Latch OVP, COT Sync Step-Down Converter	QFN5x4-25 QFN5x4-29
	MPQ8636-20	4.5	18	20	0.86	0.611	Prog.	√	√		√		√	20A, 4.5-18V,CCM, Non-Latch OVP, COT Sync Step-Down Converter	QFN5x4-25 QFN5x4-29
	MP8620	6	16	25	2	0.8	600	√	√		√	√		16V, 25A Synchronous Step-Down Converter with Phase Inter-Leaving, External Soft Start, and OCP Latch-Off	QFN6X6-36

Maximum Operating Input Voltage <55V

NEW	MPQ4568	4.5	45	0.1	0.02	1	Prog.		√		√			Industrial Grade, 60V, 20uA, Low Iq Synchronous Step-Down Converter	QFN3x3-10
NEW	MP4568	4.5	45	0.1	0.02	1	Prog.		√		√			60V, 100μA, Low Iq Synchronous Step-Down Converter	QFN3x3-10
AEC-Q100	MPQ2459	4.5	55	0.5	0.73	0.812	480							0.5A, 55V, 480kHz Step-Down Converter	TSOT23-6
	MP4566	4.5	36	0.6	0.035	1	1000			√				36V, 600mA, 1MHz Non-Sync Step-Down Converter with High Light Load Efficiency	QFN2x3-8
AEC-Q100	MPQ2451	3.3	36	0.6	0.13	0.794	2000			√				36V, 2MHz, 0.6A Step-Down Converter Automotive-Grade	SOT23-6L QFN-6L
	MPQ4458	3.8	36	1	0.12	0.8	Prog.			√				1A, 4MHz, 36V Step-Down Converter	TQFN3x3-10
AEC-Q100	MPQ4558	3.8	55	1	0.14	0.8	Prog.			√				1A 2MHz 55V Step-Down Converter Light-Load Efficiency	QFN3x3-10 SOIC8E

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUE)

Step-Down Converters (Continue)

Maximum Operating Input Voltage <55V (Continue)

	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)	Features: Power Good	External Soft Start	Light-Load Efficiency	Synchronous Rectification	External Freq Sync	Constant On-Time (COT)	Notes	Package
	MPQ4459	3.8	36	1.5	0.12	0.8	Prog.			√				1.5A, 4MHz, 36V Step-Down Converter	TQFN3x3-10
	MPQ2490	4.5	36	1.5	0.5	0.805	700	√	√					1.5A, 36V, 700kHz Step-Down Converter with Programmable Output Current Limit	SOIC8
	MP24971	8	50	1.5	1.2	0.8	100							1.5A, 50V, 100kHz, 5V Fixed Output Step-Down Converter with Programmable Current Limit, Output Line-drop Compensation and Output Over-voltage Protection	SOIC8 SOIC8E
AEC-Q100	MPQ4561	3.8	55	1.5	0.14	0.795	Prog.		√	√				1.5A, 2MHz, 55V Step-Down Converter	QFN3x3-10
AEC-Q100	MPQ4560	3.8	55	2	0.14	0.797	Prog.			√				2A, 2MHz, 55V Step-Down Converter	QFN3x3-10 SOIC8E
	MP2499	4.5	55	2	0.5	0.8	100		√					Integrated 100V Load Dump Protection 2A 100kHz Step-Down Regulator with Programmable Output Current	SOIC16
	MPQ4460	3.8	36	2.5	0.12	0.8	Prog.			√				2.5A, 4MHz, 36V Step-Down Converter	QFN3x3-10
	MP2560	4.5	42	2.5	0.12	0.8	Prog.			√				2.5A, 4MHz, 42V Step-Down Converter	QFN3x3-10 SOIC8E
	MP2565	4.5	50	2.5	0.12	0.8	Prog.			√				2.5A, 4MHz, 50V Step-Down Converter	QFN3x3-10 SOIC8E
	MP2403	4.6	32	3	1.45	0.8	250		√		√			4.6V to 32V, 250kHz, 3A Sync Buck with External, Comp and External SS	SOIC8N
	MP2497A	4.5	50	3	1.2	0.8	100							3A, 50V, 100kHz Fast Switching Step-Down Converter with Programmable Output OVP Threshold	SOIC8E
AEC-Q100	MPQ4462	3.8	36	3.5	0.12	0.792	Prog.							3.5A, 4MHz, 36V Step-Down Converter	QFN3x3-10 SOIC8E
	MP28490	4.5	30	5	0.9	0.808	420	√				√		5A, 30V, 420kHz Step-Down Converter with Power Good. Output Adjustable from 0.8V to 15V.	SOIC8E
NEW AEC-Q100	MPQ4470A	4.5	36	5	0.5	0.815	Prog.	√	√	√	√			Industrial Grade, High-Efficiency, Fast-Transient, 5A, 36V Sync, Step-Down Converter	QFN3x4-20
NEW AEC-Q100	MPQ4470	4.5	36	5	0.5	0.815	Prog.	√	√	√	√			High-Efficiency, Fast-Transient, 5A, 36V Synchronous, Step-Down Converter with AEC-Q100 Qualification	QFN3x4-20
	MP8675	4.5	42	6	0.9	0.808	420				√	√		6A, 42V, 420kHz Step-Down Converter with Synchronizable Gate Driver	SOIC8E
	MP38892	4.5	42	6	0.9	0.808	420				√	√		6A, 42V, 420kHz Step-Down Converter with Synchronizable Gate Driver	SOIC8E
	NB6381	4.5	28	8	0.5	0.815	Prog.	√	√	√	√		√	Wide Vin 4.5 to 28V, 8A, COT Synchronous Step-Down Converter with Internal Bias Supply, OCP Latch-Off	QFN3x4-20
	MP38876	4.5	28	15	1	0.81	400	√	√		√	√		15A, 28V, High Frequency Step-Down Converter with Sync Gate Driver, OCP Latch-Off	QFN3X4-20

Step-Down Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	I_{SD} (Typ) (mA)	V_{FB} (V)	F_{SW} (kHz)	Soft Start	Reg Output Phase	Notes	Package
MP2910	5	12	-	0.6	-	0.8	300	Internal	-	Sync Buck PWM DC-DC and Linear Power Controller, Specific Power Good Indicator for Intel®, Grantsdale F_{SB}_V_{TT} Power Sequence	SOIC14 SOIC8E
MP2905	3	28	-	0.6	-	0.6	Adj. 200 to 500	External	-	Ideal for Applications Greater than 15A	MSOP10

Step-Up Charge Pump

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Min) (V)	V_{OUT} (Max) (V)	I_{OUT} (Max) (A)	I_Q (mA)	F_{SW} (kHz)	Notes	Package
MPQ9361	2.8	5	5	5	0.11	2	1350	Industrial Grade, Fixed 5Vout, High-Performance Regulated Charge Pump, Internal Soft-Start OCP SCP In-Rush Current-Limit	TSOT23-6
MP9361	2.8	5	5	5	0.11	2	1350	Fixed 5Vout, High-Performance Regulated Charge Pump, Internal Soft-Start OCP SCP In-Rush Current-Limit	TSOT23-6

Step-Up Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	F_{SW} (kHz)	I_Q (Typ) (mA)	Power Good	V_{FB} (TYP) (V)	Soft Start	Max Duty Cycle	Notes	Package
MP3908	4.75	10	5	300	0.27	-	0.818	External	0.86	Current Mode PWM Controller with Synchronous Gate Drive	MSOP10
MP3900	8.6	12	2.5	390	0.27	-	0.816	Internal	0.83	Efficiency Flyback/Boost Controller	MSOP8
MP3910	7	35	-	-	-	-	-	-	-	Prog Switching Freq, Ext SS, 35V Vin Max, Supports Pulse-Skipping Mode at Light-Load	MSOP10
MP6002	10	100	3	550	1	-	1.21	Internal	-	Flyback/ Forward DC/DC Converter,30W, Integrated 150V Power Switch	SOIC8E
MP6001	10	100	2	550	1	-	1.21	Internal	-	Flyback/Forward DC/DC Converter,15W, Integrated 150V Power Switch	SOIC8E
MP6003	10	100	-	550	1	-	1.21	Internal	-	Monolithic Flyback/SEPIC DC/DC Converter	SOIC8E

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUE)

Step-Up Converters

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package
MP3209	2.5	6	22	0.35	0.64	1.25	1400	-	Internal Comp, Tiny Inductors and Capacitors Can be Used	TSOT23-5 UTQFN8 (2x2)
MP3418	0.6	4	4	0.4	0.038	1.21	1200	√	400mA, 1.2MHz, Very Low Iq, Output Disconnect	TSOT23-8
MP3217	2.5	6	36	0.5	0.46	1.24	670	-	Cycle-by-Cycle Over-Current Protection, UVLO, Thermal Shutdown, p2p with MAX5025-5028	TSOT23-6
NEW MP1400	2.7	7	-6	0.6	0.2	0	1500	-	Output Adjustable from -0.9V to -6V, Very Small Size	CSP8 (0.8x1.6)
MP1531	2.7	5.5	22	0.65	0.8	1.25	250	-	Triple Output Step-Up and Charge Pump for TFT Bias	QFN16 (3x3) TSSOP16
MP3216	2.5	6	36	0.75	0.55	1.24	1300	-	Output Disconnect, Output Short Protection, Cycle-by-Cycle Over Current Protection	TSOT23-6
MP3120	0.8	5	5	1.2	0.47	1.19	1100	√	Output Disconnect, Has LDO Mode	TSOT23-6
MP3430	2.7	5.5	90	1.2	0.3	0.8	1300	-	APD Current Monitoring (1:10 or 1:2 Ratio) with 5% Accuracy and 50ns Response Time, Programmable APD Current-Limit and Protection, Internal Comp and SS	QFN16 (3x3)
MP3410	1.8	6	6	1.3	0.36	1.19	550	√	Output Disconnect	TSOT23-5
MP3212	2.3	5.5	28	1.3	0.18	1.23	1000	-	Integrated Input Disconnect Switch, Internal SS and Internal Comp	QFN10 (3x3)
MP3414	0.6	4	4	1.8	0.035	1.21	1000	√	Very Low Iq, Output Disconnect	TSOT23-8
MP1541	2.5	6	22	1.9	0.64	1.25	1300	-	-	TSOT23-5
MP1542	2.5	22	22	2.6	0.7	1.25	700/1300	-	-	MSOP8
NEW MP3221	2.5	6	6	2.7	0.27	0.796	1200	-	High-Efficiency, Low Iq, Input Disconnect	TSOT23-6
MP3213	2.5	22	22	3.5	0.7	1.25	700/1300	-	-	MSOP8E
MP1530	2.7	5.5	22	3.6	1.3	1.25	1400	-	Triple Output Charge Pump and LDO for TFT Bias	QFN16 (3x3) TSSOP16
MP1517	2.6	25	25	4	0.9	0.7	1100	-	-	QFN16 (4x4)
MP3425	3.1	22	55	5	0.65	1.25	Prog. 300 to 2000	-	Programmable UVLO and EN Hysteresis, Consumer Grade	QFN14 (3x4)
MP3426	3.2	22	35	8.5	0.65	1.225	Prog. 300 to 2000	-	Programmable UVLO, Soft-Start, UVLO Hysteresis	QFN14 (3x4)

Step-Up Energy Storage (Dying GASP)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Vstrg (Max) (V)	I Limit Charging (A)	I Limit Dumping (A)	I_Q (Typ) (mA)	V_{FB} (V)	Notes	Package
MP6302	4.2	18	32	0.25	2.5	0.25	1	Programmable Storage and Release Voltage, Indicators for Storage and Input Voltage	QFN10 (2x3)
MP5600	9	18	19.5	1.2	5	3.5	1.227	Multiple-Output Power Supply for TV-LCD panel	TQFN40 (5x5)
MP201	4.5	18	32	0.26	2.5	0.25	1	Programmable Storage and Release Voltage, Flag Indicator	SOIC8
MP5505	2.7	7	30	0.5	5	2 (Max)	0.79	Programmable Storage and Release Voltage, Hot-Swap Management Unit	QFN20 (3x4)

Step-Up LNB

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Standard	I_{OUT} (Max) (A)	22kHz Tone Signal Generated	POK Indicator	I2C	Notes	Package
MP8125	8	14	DiSEqC™ 1.x	0.55	Internal	√	-	Boost Converter with Internal Switch, Low-Noise LDO Output, Line Drop Compensation, Settable LDO Current-Limit, Selectable Vout Compensation, Adjustable Output SS	TSSOP16 QFN24 (4x4)
MP8126	8	14	DiSEqC™ 1.x	0.55	Internal	√	-	Boost Converter with Internal Switch, Low-Noise LDO Output, Line Drop Compensation, Settable LDO Current-Limit, Selectable Vout Compensation, Adjustable Output SS, Direct 22kHz Input	TSSOP16EP QFN24 (4x4)

BUCK-BOOST

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	F_{SW} (kHz)	Sync	Notes	Package
NEW MP2155	2	5.5	5	2.2	0.08	0.496	1000	√	2.2A, High-Efficiency, Very Low Iq, Power-Save Mode, Load Disconnect	QFN10 (3x3)
MP28163	2	5.5	5	2.9	0.07	0.496	1100	√	2.9A, High-Efficiency, Very Low Iq, Power-Save Mode, Load Disconnect	QFN10 (3x3)

DC/DC POWER CONVERSION

MODULES

Part Number	I_{OUT} (A)	V_{IN} (V)	I_Q (µA)	Power Good	Light-Load Efficiency	Soft Start	Protection Features OCP/SCP/ULVO/ OTP	Solution Size	Notes	Package
MPM3805	0.6	2.5-6	17	√	√	Internal	√	3.81x5.97mm	6V Input, 0.6A Sync Step-Down Converter Module with Integrated Inductor	3 x 2.5x0.9 QFN12
MPM3805-1.2V	0.6	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
MPM3805-1.8V	0.6	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
NEW MPM3805-2.5V	0.6	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
NEW MPM3805-3.3V	0.6	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
MPM3810	1.2	2.5-6	17	√	√	Internal	√	3.81x5.97mm	6V Input, 1.2A Sync Step-Down Converter Module with Integrated Inductor	3 x 2.5x0.9 QFN12
MPM3810-1.2V	1.2	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
MPM3810-1.8V	1.2	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
NEW MPM3810-2.5V	1.2	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
NEW MPM3810-3.3V	1.2	2.5-6	17	√	√	Internal	√	3.81x5.97mm	-	3 x 2.5x0.9 QFN12
NEW MPM3820	2	2.7-6	40	√	√	Internal	√	8.5x4.5mm	6V Input, 2A Sync Step-Down Converter Module with Integrated Inductor	3 x 5x1.6 QFN20
NEW MPM3830	3	2.7-6	40	√	√	Internal	√	8.5x4.5mm	6V Input, 3A Sync Step-Down Converter Module with Integrated Inductor	3 x 5x1.6 QFN20

LDO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	IQ (Typ) (µA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	Dropout Voltage (mV)	V_{OUT} (V)	Notes	Package
MP2000	1.35	6	150	65	0.001	50	0.5	250 (IO: 100mA) 300 (IO: 150mA)	0.5 to 5.0 Only Adj Option Available Now	Low Voltage Input (1.35V to 6V)	TSOT23-5
MP20049	2.3	6	150	55	0.001	78	-	50 (IO: 120mA)	Fixed, 1.2V to 4.5V, Available Option: 2.8V	Ultra-Low Noise, High PSRR in WLCSP Package, p2p ADP120 & LP5900	WLCSP (0.8x0.8)
MP8801	2.7	6.5	150	125	0.001	70	1.22	150 (IO: 150mA)	Adj., Avail Fixed Options: 2.5V,2.85V and 3.3V	Low Noise, Excellent for RF App, Lower Cost	TSOT23-5
MP8903	2.7	6.5	150	125	0.001	50	1.22	150 (IO: 150mA)	Adj., Avail Fixed Options: 2.5V,2.85V and 3.3V	Low Cost, Small QFN 2x2mm Option, Consumer Grade	QFN8 (2x2) TSOT23-5
MPQ8903	2.7	6.5	150	125	0.001	50	1.22	150 (IO: 150mA)	Adj., Avail Fixed Options: 2.5V,2.85V and 3.3V	Low Cost, Small QFN 2x2mm Option	QFN8 (2x2) TSOT23-5
MP20142	2.5	5.5	200 (2x)	150	-	75	-	60 (IO: 100mA) 180 (IO: 300mA)	1.5V to 3.3V, Programmable	Dual Outputs, Prog with 2-Pin Control Input	TQNF8 (2x2)
MP2004	2.7	6.5	200 (2x)	114	0.005	69	-	90 (IO: 100mA) 180 (IO: 200mA)	Avail Options: 2.5/1.8, 5.0/3.3, 3.0/2.85, 1.85/1.85, 3.3/2.5, 2.8/1.8	Dual LDO Adjustable	TSOT23-6
MP20249	2.3	6	200 (2x)	125	0.001	65	-	60 (IO: 150mA) 75 (IO: 200mA)	Fixed, 1.2V to 3.3V, Avail Option: 2.8V/1.2V	Dual-Channel, Ultra-Low Noise, High PSRR in 6-Ball WLCSP Package	WLCSP (1x1.5)
NEW AEC-Q100 MPQ20056-18	2.5	5.5	250	150	0.002	63	0.8	100 (IO: 250mA)	Fixed 1.8V	250mA, fixed 1.8V Output, Available in AEC-Q100 and Industrial Grade	QFN8 (2x2)
NEW AEC-Q100 MPQ20056-33	2.5	5.5	250	150	0.002	63	0.8	100 (IO: 250mA)	Fixed 3.3V	250mA, fixed 3.3V Output, Available in AEC-Q100 and Industrial Grade	QFN8 (2x2) TSOT23-5
MP20048	1.7	5.5	250	350	5E-04	35	1.234	60 (IO: 250mA)	Adj. 1.234V to 5.0V	Stable Without Any Output Capacitors	TSOT23-5
MP8802	2.7	6.5	250	125	0.001	70	1.22	230 (IO: 250mA)	Adj., Avail Fixed Options: 2.5V,2.85V and 3.3V	Excellent for RF Applications, Lower Cost	TSOT23-5
MP8902	2.7	6.5	250	125	0.001	70	1.22	230 (IO: 250mA)	Adj., Available 1.25V to 5V Fixed Options: 2.5V,2.85V and 3.3V	Excellent for RF Applications	QFN8 (2x2)
MP20041	2.5	6	300 (2x)	114	0.003	65	-	75 (IO: 100mA) 220 (IO: 300mA)	Avail Options:1.8/1.2, 1.8/1.3, 1.8/2.5, 1.8/3.3, 2.5/3.3, 2.8/1.8, 2.8/3.3, 3.3/2.7, 3.3/3.3, 3.0/3.0	Dual Fixed Output, 300mA/CH LDO, p2p RT9012	QFN8 (2x2)
MP20044	2.5	6	300 (2x)	114	0.002	65	-	75 (IO: 100mA) 220 (IO: 300mA)	1.2V to 5.0V Avail Option: 3.0V/3.0V	Dual Fixed Output, Good Load Regulation, 300mA/Ch LDO	TQFN8 (2x2)
MP20043	2.5	5.5	300 (2x)	150	-	75	-	60 (IO: 100mA) 180 (IO: 300mA)	1.2V to 3.3V Avail Ver: -A,-B,-C,-D,-E	Dual outputs, Prog with 2-Pin Control Input	TQNF8 (2x2)
MP2002	1.35	6.5	500	100	0.001	26	0.5	290 (IO: 500mA)	Adj. 0.5V to 5.0V	Low Voltage Input, Power Good	QFN8 (2x3)
NEW MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (IO: 500mA)	Adj. 0.5V to 5.0V	Power Good Output	QFN8 (2x3)
NEW AEC-Q100 MPQ8904	2.5	6.5	500	100	0.001	26	0.496	300 (IO: 500mA)	Adj. 0.5V to 5.0V,	Power Good Output, Available in AEC-Q100 and Industrial Grade	QFN8 (2x3)
MP20045	2.5	5.5	1000	110	3E-04	56	1.5	140 (IO: 1000mA)	Adj. 1.5V to 5.0V, Avail Fixed Options: 1.8V,2.5V and 3.3V	High Input/Output Current with Fast Response, Fixed and Adj. Output Voltages	QFN8 (3x3) SOIC8E
NEW MP20051	2.5	5.5	1000	110	3E-04	63	0.8	140 (IO: 1000mA)	Adj. 0.8V to 5.0V	0.8V VFB Version of MP20045, with Adj. Output Voltage from 0.8V to 5.0V	QFN8 (3x3) SOIC8E
NEW AEC-Q100 MPQ20051	2.5	5.5	1000	110	3E-04	63	0.8	140 (IO: 1000mA)	Adj. 0.8V to 5.0V	Available in AEC-Q100 and Industrial Grade	QFN8 (3x3)
MP20046	2.7	5.5	2000	75	3E-04	70	-	210 (IO: 2000mA)	Fixed,1.5V to 3.3V. Available Options: 1.5V, 1.8V, 2.5V, 3.3V	High Input/Output Current with Fast Response	SOIC8E QFN10 (3x3)

DC/DC POWER CONVERSION

LDO (CONTINUE)

MP20073	1.3	6	2000	-	N/A	N/A	N/A	N/A	V_{TT}/V_{TT}Ref	DDR2/3 Termination Regulator, V_{DRV}=3.3V	MSOP8E
MP2007	1.3	6	3000	-	N/A	N/A	N/A	N/A	V_{TT}/V_{TT}Ref	DDR2/3 Termination Regulator	MSOP8E
MP20075	1.3	3.6	3000	-	N/A	N/A	N/A	N/A	V_{TT}/V_{TT}Ref	DDR2/3 Termination Regulator, V_{DRV}=3.3V	MSOP8E

High-Performance, Low-Dropout Linear Regulators

MP2016	4	42	30	12	0.003	50	1.23	700 (IO:30mA)	Adj. 1.2V to 20V	Ideal for Automotive	QFN8 (2x3) TSOT23-5
MP2009	2	6	120	50	0.002	78	-	172 (IO:120mA)	Adj.1.5V to 4.5V Avail Fixed Options: 1.8V,2.5V and 3.3V	No Bypass Capacitor Required	SC70-5
NEW MP2013	2.5	40	150	3.2	0.003	41	1.215	620 (IO:150mA)	Fixed and Adj. 1.215V to 15V	3.2uA Ultra-Low Quiescent Current	TSOT23-5 QFN6 (2x2) QFN8 (3x3)
NEW AEC-Q100 MPQ2013	2.5	40	150	3.2	0.003	41	1.215	620 (IO:150mA)	Fixed and Adj. 1.215V to 15V Industrial Grade	Industrial Grade, 3.2μA Ultra-Low Quiescent Current	TSOT23-5 QFN6 (2x2) QFN8 (3x3)
MP20042	2.7	6.5	200 (2x)	114	0.005	73	-	73 (IO:100mA) 145 (IO:150mA)	1.2V to 3.3V. Avail Options: 1.85/1.85, 2.5/1.8, 2.8/1.8, 3.0/2.85, 3.3/2.5, 5.0/3.3	Dual LDO Adjustable and Fixed Output Option	QFN8 (2x2)
MP2005	1	5.5	800	100	5E-04	65	0.5	70 (IO:800mA)	Adj. 0.5V to 4.0V	Ultra Low Dropout, Fast Transient, 48dB PSRR @ 1MHz	QFN8 (2x3)
MP2030	1.1	5	3000	220	0.001	32	0.5	150 (IO:3000mA)	Adj. 0.9V to 3.8V	Dual Supply, Fast Transient, Ultra-Low, Dropout with Bias Supply, Power Good, Current-Limit and Internal Thermal Protection	QFN10 (3x3) QFN32 (5x5)
MP2040	1.1	5	3000	3500	0.001	40	0.5	150 (IO:3000mA)	Adj. 0.9V to 3.3V	Highest PSRR, Fast Transient Response, 3A, Very Low Dropout Linear Regulator	QFN10 (3x3) QFN32 (5x5)

SUPERVISORY

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (μA)	Threshold Acc (%)	Reset Threshold Accuracy (%)	Delay Time (me)	LDO I_{OUT} (mA)	PSRR @1K	$V_{DROPOUT}$ (mV)	Notes	Package
AEC-Q100 MPQ6400	1.8	6	1.6	0.4	1	2.1 to 10000	-	-	-	Low Quiescent Current Programmable-Delay Supervisory Circuit, Available in AEC-Q100 and Industrial Grade	TSOT23-6 QFN6 (2x2)
MP6401	2.5	5.5	80	0.25	7.5	3.125 to 1580	300	57	114 (IO: 300mA)	Linear Regulator with Integrated Reset Circuit	TQFN8 (3x3) TQFN6 (2x2) TSOT23-6
MP6402	2.5	5.5	400	-	3	Prog	500	60	260 (IO:500mA)	Dual LDO, Integrated Reset Circuit, Fixed Output Voltages from 0.9V to 3.3V	SOIC8E TQFN8 (3x3)

MOSFET DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Boot Strap Supp (Max) (V)	Peak Pull-Up Curr (A)	Peak Pull-Down Curr (A)	Rise Time (ns)	Fall Time (ns)	Turn On Delay (ns)	Turn Off Delay (ns)	Notes	Package
MP18024	9	16	100	3	4.5	15	9	20	20	100V, 4A, High Frequency, Half-Bridge Gate Driver	SOIC8E
MP1906	10	16	80	0.35	1	50	30	80	80	80V, Half-Bridge, Gate Driver	SOIC8
MP1907	4.5	18	100	1.5	2.5	12	9	18	20	100V, 2.5A, High Frequency Half-bridge Gate Driver	QFN3x3-10
MPQ18021A	9	18	100	1.5	2.5	12	9	16	16	100V, 2.5A, High Frequency, Half-Bridge Gate Driver	SOIC8
MP18021A	9	18	100	1.5	2.5	12	9	16	16	100V, 2.5A, High Frequency, Half-Bridge Gate Driver	SOIC8E QFN8 (3x3)
MP18021	9	18	100	1.5	2.5	12	9	16	16	100V High Frequency, N-MOSFET Half-Bridge Gate Driver with 1ns Matching Delay	SOIC8EP QFN8 (3x3)

PMIC & MULTIPLE OUTPUTS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes	Package
MP5410	1.8	5.5	10	1.23	10	Variable	Low Start-Up Voltage Boost Converter with 4 SPDT Switches	QFN16 (3x3)
MP5414	1.8	5.5	10	1.23	10	Variable	Step-Up Converter, 4 SPDT Switches, LDO and Charger Designed for 3-D Glasses	QFN28 (4x5)

POE PD CONTROLLERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package
MP3900	8.6	12	10V Gate Driver	0.2V/R_{SENSE}	0.18	0.816	330	-	(Boost Controller) 10V Gate Drive	MSOP8
MP3908	4.75	12	10V Gate Driver	0.19V/R_{SENSE}	0.27	0.82	260	√	Sync Boost Controller, Optimized for PoE PD Power, Lossless Current Sense, Forward, Flyback, SEPIC Apps, External SS	MSOP10
MP6001	4.5	100	5V	2	-	-	55 to 550	-	15W, Integrated 150V Power Switch	SOIC8E
MP6002	10	100	5V	4	1	1.21	55 to 550	-	30W, Integrated 150V Power Switch	SOIC8E

POE PD IDENTITY

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Notes	Package
MP8005	100V, 1Ω DMOS	440	Yes	802.3af	13W PoE PD Interface and PWM Controller	TSSOP20
MP8001	100V, 0.8Ω DMOS	440	Yes	802.3af	15W PoE PD Controller	SOIC8

BATTERY MANAGEMENT

CIGARETTE LIGHT ADAPTERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	I_{OUT} (A)	Switching Freq (kHz)	Short-Circuit Switching Freq (kHz)	Soft-Start	Shutdown Supply Current (Max) (μA)	Notes	Package
MP2490	4.5	36	40	1.5	700	200	External	10	1.5A, 36V, 700kHz Step-Down Converter with Programmable Output Current-Limit	SOIC8 QFN10 (3x3)
MP2493	4.5	36	40	2	130	35	External	10	1.5A, 36V,130kHz Low EMI Step-Down Converter with Programmable Output Current-Limit	SOIC8 SOIC8E
MP2497	4.5	50	60	3	100	50	Internal	10	3A, 50V, 100kHz Step-Down Converter with Programmable Output OVP Threshold	SOIC8 SOIC8E
MP2497A	4.5	50	60	3	100	50	Internal	10	3A, 50V, 100kHz fast switching Step-Down Converter with Programmable Output OVP Threshold	SOIC8 SOIC8E
MP24971	8	50	-	1.5	100	-	Internal	-	1.5A, 50V, 100kHz, Programmable Current-Limit, ¡Output Line-drop Compensation, Output Over-voltage Protection	SOIC8 SOIC8E
MP2492	4.5	55	60	2	100	100	External	10	2A, 55V, 100kHz Step-Down Converter with Programmable Output Current-Limit	SOIC8E QFN10 (3x3)
MP2494	4.5	55	60	2	100	100	External	10	2A, 55V, 100kHz Step-Down Converter	SOIC8 SOIC8E
MP24943	4.5	55	-	3	100	-	External	-	3A, 55V, 100kHz, Programmable Output OVP Threshold	SOIC8 SOIC8E

CRADLE CHARGERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Cells	I_{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP26085	7	20	-	-	-	-	CV/CC Controller	CC/CV Controller with 1.223V Voltage Reference	SOT23-8
MP26075	2.2	28	1	1	√	√	CV/CC Linear	Includes Pre-Charge Function, Thermal Foldback and Voltage Control Function for Flyback Controller	QFN10 (3x3)
MP2681	4.5	30	3-5	4	No	No	CV/CC Controller	CC/CV Controller with Full Protection and Indication. One Chip solution for Power Tools Applications	SOIC 16

LINEAR CHARGERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Cells	I_{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP2607	4.5	12	1	Up to 1.5	√	√	CV/CC Linear	Li-Ion Linear Charger with System Power Path Management	QFN14 (3x4)
MP26028	3.5	20	1	Up to 1	√	√	CV/CC Linear	Includes Battery Temp Monitor, Trickle Charge	QFN10 (3x3)
MP26060	3.5	24	1	Up to 1	√	√	CV/CC Linear	4.15V Output Safe Charge	QFN10 (3x3)
MP2603	4.75	25	1	Up to 0.15	√	√	CV/CC Linear	Simple System Charger, 50mA to 150mA Prog Charge, No NTC	TSOT23-5
MP2631	3	28	1	Up to 1	√	√	CV/CC Linear	Li-Ion, Linear Battery Charger with 10mA High-Voltage LDO	QFN10 (3x3)
MP2608	3.5	28	1	Up to 1	√	√	CV/CC Linear	Dual Input USB & AC-Adapter	QFN10 (3x3)
MP2604	3.5	28	1	Up to 1	-	√	CV/CC Linear	Includes NTC, Battery Temp Monitor	QFN10 (3x3)
MP2602	3.5	28	1	Up to 1	√	√	CV/CC Linear	Includes NTC, Battery Temp Monitor, Trickle Charge	QFN10 (3x3)
MP2606	3.5	28	1	Up to 1	-	√	CV/CC Linear	Wide IBF Hysteresis, NTC	QFN10 (3x3)
MP26056	3.5	28	1	Up to 1	√	√	CV/CC Linear	Dual-Mode USB & AC Adapter	QFN10 (3x3)
MP2605	3.5	28	1	Up to 1	√	√	CV/CC Linear	Auto-Charge Term & Recharge, Timer	QFN10 (3x3)
MP26053	3.5	28	1	Up to 1	√	√	CV/CC Linear	I_{chg}=10% of Iset, Auto-Charge Term & Recharge, Timer	QFN10 (3x3)
MP26058	3.5	28	1	Up to 1	-	√	CV/CC Linear	Includes LDO Mode & Timer	QFN10 (3x3)
MP26057	3.5	28	1	Up to 1	√	√	CV/CC Linear	Travel Charger	QFN10 (3x3)
MP26121	3.5	28	1	Up to 1	√	√	CV/CC Linear	Li-Ion Linear Battery Charger with 10% Battery Full Thres, Flexible NTC Interface	QFN10 (3x3)

POWER BANK MANAGEMENT

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Charge Current (Max) (A)	Output Curr Boost Mode (A)	Switching Freq (kHz)	# of Cells	Battery Charge Voltage (V)	Battery Type	Notes	Package
MP2633	4.5	6	1.5	1.5	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	1.5A Single-Cell Switching Charger with Power-path Management and 1A Boost OTG	QFN24 (4x4)
MP2633A	4.5	6	1.5	1	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	1.5A Single-Cell Switching Charger with Power-path Management and 1A Boost OTG	QFN24 (4x4)
MP2635	4.5	6	2	1.5	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	2A Single-Cell Switching Charger with Power-path Management and 1A Boost OTG	QFN24 (4x4)
MP2635A	4.5	6	2	1	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	2A Single-Cell Switching Charger with Power-path Management and 1A Boost OTG	QFN24 (4x4)

PROTECTION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Cells	I_{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP2671	2.6	30	1	-	-	-	Battery Protect	Li-Ion Battery Charger with Protection Circuit	QFN12 (3x4)
MP2670	4.3	30	1	-	-	-	Battery Protect	Li-Ion Battery Charger with Protection Circuit	QFN10 (3x3)
MP2674	4.3	30	1	-	-	-	Battery Protect	Li-Ion Charger, Protection Circuit, Tolerates Input Surge up to 30V, Small Pkg	QFN8 (2x2)
MP2676	4.3	30	1	-	-	-	Battery Protect	Li-Ion Charger Protection IC with Integ P-MOSFET for PMU Charger Protection	QFN8 (2x2)
MP2678	3.3	30	1	-	-	-	Battery Protect	Li-Ion Battery Charger Protection IC with 5V LDO Mode	QFN8 (2x2)

BATTERY MANAGEMENT

SWITCHING CHARGERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Cells	I_{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Switching Freq (kHz)	Notes	Package
MP2611	4.5	6	1	Up to 2	√	√	CV/CC Switching	1500	Single Cell Switching Charger with Separate Input for USB and AC Adapter	QFN14 (3x4)
MP2617	4	16	1	3	√	√	CC/CV switching	1.5MHz	3A Single Input, Single Cell Switch Mode Battery Charger with Narrow VDC Power Path Management	QFN20 (3x4)
MP2633	4.5	16	1	2	√	√	CC/CV switching	600/1200	1.5A Single Cell Switch Mode Battery Charger with Power Path Management and Boost OTG	QFN24 (4x4)
MP2635	4.5	16	1	2	√	√	CC/CV switching	600/1200	2A Single Cell Switch Mode Battery Charger with Power Path Management and Boost OTG	QFN24 (4x4)
MP2615	4.5	18	1-2	2	√	√	CV/CC Switching	600	2A, 1 and 2 Cells Switch Mode Battery Charger	QFN16 (3x3)
MP2610	5	24	1/2	Up to 2	√	√	CV/CC Switching	1100	1.1MHz Switching Li-Ion Charger, up to 90% Efficiency	QFN16 (4x4)
MP2618	5.5	24	2/3	Up to 2	√	√	CV/CC Switching	600	600kHz Switching Li-Ion Charger with System Power Path Mgmt	QFN28 (4x5)
MP2619	4.5	24	2/3	2	√	√	CV/CC Switching	600	2A, 24V Input, 600kHz, 2-3 Cell Switching Li-Ion Battery Charger with System Power Path Management	QFN28 (4x5)
MP26101	5	24	1/2	Up to 2	√	√	CV/CC Switching	1100	4.1V/Cell Switching Li-Ion Charger	QFN16 (4x4)
MP26123	9	24	2/3	Up to 2	√	√	CV/CC Switching	600	600kHz Switching Li-Ion Battery Charger	QFN16 (4x4)
MP2623	4.5	24	1/2	Up to 2	√	√	CV/CC Switching	1100	3.6V/Cell Switching Li-Ion Charger	QFN16 (4x4)

CLASS-D AUDIO

ANALOG INPUT

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	P_{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Type	Notes	Package
MP1720	2.5	5.5	2.7	90	0.11@ 1W	60	Mono	Mono BTL, Low-EMI, High-Efficiency, Flexible Switching Frequency Setting	QFN10 (3x3) MSOP10E
MP1740	2.5	5.5	3	90	0.11@ 1W	62	Mono	Mono BTL, Ultra Small for Portable and Mobile Phones	9-Ball WLCSP (1.5x1.5)
MP7731	9.5	18	30	90	0.10 @ 1W	60	Mono	30W Class-D Mono Amplifier	TSSOP20F
AEC-Q100 MPQ7731	9.5	18	30	90	0.10 @ 1W	60	Mono	30W Class-D Mono Amplifier Available in AEC-Q100 and Industrial Grade	TSSOP20F
MP7720	9.5	24	20	93	0.04 @ 1W	60	Mono	Single-Ended Audio Amplifier	PDIP8 SOIC8
MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	Stereo	Stereo, Single-Ended Audio Amplifier	TSSOP20F
MP7745	9.5	26	20 (2x)	93	0.05 @ 1W	59	Stereo	Stereo, Single-Ended, Fully-Integrated Audio Amplifier, p2p with MP7722	TSSOP20F
MP7742	9.5	28	15 (2x)	90	0.018 @ 1W	60	Stereo	Stereo, Single-Ended, Fully-Integrated Audio Amplifier, p2p with MP7722	TSSOP20F
MP7741	9.5	36	10	94	0.02 @ 1W	58	Mono	Single-Ended, Fully-Integrated Audio Amplifier	QFN10 (3x3)
MP7740	9.5	36	15	90	0.018 @ 1W	60	Mono	Single-Ended, p2p MP7720	SOIC8
MP7747	9.5	36	20	91	0.02 @ 1W	59	Mono	Single-Ended, Fully-Integrated Audio Amplifier	QFN10 (3x3)
MP7748	9.5	36	20 (2x)	91	0.02 @ 1W	60	Stereo	Stereo Single-Ended, Fully-Integrated Audio Amplifier	TSSOP28F
NEW MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	Stereo	2x30W Stereo SE or 1x60W BTL Class-D Audio Amplifier	TSSOP28EP
MP7770	9.5	36	45 (2x)	95	0.03@1W	60	Stereo	2x45W Stereo SE or 1x90W BTL Audio Amplifier, 8.5A Peak	TSSOP28F TSSOP28FR

PWM INPUT POWER DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	P_{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Type	Notes	Package
MP7782	9.5	24	50	90	0.06 @ 1W	60	Mono	Full-Bridge BTL Output	TSSOP20F

DISPLAY BACKLIGHTING POWER

WHITE LED DRIVERS (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)	Switching Freq (kHz)	Open LED Protection	Type	Notes	Package
MP3412	0.8	4.4	5	1	1.1	0.2	1000	√	Boost	High-Efficiency, 0.8V Low Start-Up Voltage	TSOT23-6
MP9361	2.8	5	5	1	-	-	1350	-	Regulated Charge Pump	Internal SS	TSOT23-6
MQP9361	2.8	5	5	1	-	-	1350	-	Regulated Charge Pump	Internal SS, Available in Industrial Grade	TSOT23-6
MP1519L	2.5	5.5	-	3	-	-	1300	√	Charge Pump	Common Cathode	QFN16 (3x3) TQFN16 (3x3)
MP1519	2.5	5.5	-	4	-	-	1300	-	Charge Pump	Common Cathode	QFN16 (3x3)
MP1529	2.7	5.5	25	3	1.2	-	1200	√	Boost	Integrated Flash	QFN16 (4x4)
MP3001	2.7	5.5	-	5	-	-	1200	-	Charge Pump	Single-Wire Brightness Control, Common Anode with Flash	QFN16 (3x3)
MP3021	2.7	5.5	-	4	-	-	1250	-	Charge Pump	Single-Wire Brightness Control, Common Anode	QFN16 (3x3)
MP3204	2.5	6	21	1	0.35	0.104	1300	√	Boost	UVLO, Low EMI, Thermal Shutdown	TSOT23-6
MP3205	2.5	6	21	1	0.35	0.104	1300	-	Boost	MP3204 without OV Pin	TSOT23-5
MP3304 (A/B/C)	3	6	36/24/18	1	1.33	0.2	2200	√	Boost	High-Efficiency, True PWM Dimming	QFN8 (2x3)
MP3305	3	6	36	1	1.33	0.2	2200	√	Boost	High-Efficiency, True PWM Dimming, Adj. OVP Threshold	QFN8 (2x3)
MP3308	3	6	36	1	1.3	0.2	2200	√	Boost	Boost WELD Driver Supporting CABC Dimming for Tablet PC or Smart Phone Backlight	QFN14 (3x4)
MP1518	2.5	6	25	1	0.35	0.104	1300	-	Boost	2.5V to 6Vin, 0.35A Boost WLED Driver	QFN8 (2x2) TSOT23-6
MP3301	2.5	6	36	1	1	-	1300	√	Boost	Boost WLED Driver for up to 10 Series LED, for Smart Phone LCD Panel Backlight	TSOT23-5
MP3302	2.5	6	36	1	1.3	0.2	1300	√	Boost	Large Panel Drive, High Voltage Output	QFN8 (2x3) TSOT23-5
MP3202	2.5	6	25	1	1.3	0.104	1300	√	Boost	1.3A Current Limit, UVLO, Low EMI, Thermal Shutdown	QFN8 (2x2) TSOT23-5
MP3306	3	12	30	1	1.8	0.2	700	√	Boost	Synchronous Boost LED Driver with Integrated Disconnect FET for Small Size LCD Panel	QFN12 (2x2)
MP1517	2.6	25	25	1	4	0.7	1100	√	Boost	UVLO, External Comp	QFN16 (4x4)
MP3388S	4.5	25	50	8	2	0.6	625 or 1250	√	Boost	PWM or DC Input Burst PWM Dimming	QFN24 (4x4) SOIC28
NEW MP3387L	3	25	50	6	2.5	0.6	500 to 1250	√	Boost	6-Channel, 50Vout Boost WLED Driver with Smart Dimming to Avoid Audible Noise	TQFN24 (4x4)
MP3310	4.5	25	50	1	1.3	0.5	1200 Programmable	√	Boost	50V, 1.3A Wide, 4.5V to 25V Input Range	QFN10 (3x3)
MP3384L	3	25	50	4	1.3	0.6	1250 or 625	√	Boost	50V, 1.2A, 4-Channel Balanced Current Source	QFN16 (3x3)
MP3389	5	28	Ext. FET	12	-	0.6	100 to 500	√	Boost	External MOSFET, PWM or DC Input Burst PWM Dimming	TSSOP28E SOIC28
NEW MP3398A	5	28	Ext. FET	4	-	0.6	100 to 500	√	Boost	Inductor Short Protection, Separate ADIM Pin	TSSOP16E SOIC16 SOIC20
NEW MP3398L	4.5	28	Ext. FET	4	-	0.6	100 to 500	√	Boost	Lower Vin-min of MP3398A suitable for USB Powered Application	SOIC16
MP3399	5	28	Ext. FET	12	-	0.6	150 to 500	√	Boost	Cascade Version of MP3389	TSSOP28E SOIC28
MP3393	9	32	Ext. FET	8	Ext. FET	0.32	100 to 500	√	Boost	350mA Channel Current for Mid Large Sized TV, Rich Features, Fault Flag, Programmable SW Freq, Fault String Mark Off	SOIC28 TSSOP28E
MP3394S	5	28	55	4	Ext. FET	0.3	150-500	√	Boost	P2P Compatible with MP3394, For New Designs Recommend MP3394S	TSSOP16EP SOIC16
MP3391	9	35	-	8	Ext. FET	0.45	150-500	√	Boost	8-Ch, 80mA/Ch, Boost Controller for 18-24" LCD Panel/TV	SOIC28 TSSOP28E
MP2480	5	36	--	1	4.3A	0.2	Up to 2000	-	Buck	3A Output Current, 3% Current Accuracy, Hysteretic Control	SOIC8E
MP1528	2.7	36	-	1	0.95	0.4	Variable	√	Boost	2.7Vto 36Vin, 36Vout Boost WLED Driver	MSOP8 QFN6 (3x3) QFN8 (2x2)
MP2488	4.5	55	-	1	3.2	0.2	200 Programmable	-	Buck	Up to 97.5% Efficiency, 220mΩ Internal Power MOSFET	QFN10 (3x3) SOIC8E
MP4012	8	55	-	1	Ext. FET	>0.3, adj.	115 to 580 Programmable	-	Boost & Other Topologies	HV9912 Pin Compatible, for Backlight (Ex: Vout>200V) and Lighting (High-Output Power).	SOIC16
MP4601	4.5	75	-	1	2.5	0.2	200 to 2000 Programmable	√	Buck-Boost	Novel Power-Leverage Technology for 60+" TV, Can Regulate LED String Voltage up to 350V	TSSOP16E SOIC16
MP4652	Offline	Offline	Ext. FET	1, 2, 4	Ext. FET	0.6	20 to 150	√	LLC, Half-Bridge, Flyback	2-PWR-Stage, Great Cost Saving / Simplicity, Audible Noise Free	SOIC16
MP4653	Offline	Offline	Ext. FET	1, 2, 4	Ext. FET	0.2	20 to 250	√	LLC	LIPS CC/CV Mode LLC LED Driver for Large TV, 2-Power-Stage for Low BOM Cost & High Efficiency for Large TV	SOIC20
MP4700	Offline	Offline	Ext. FET	1	Ext. FET	0.3	Up to 160	External Component	Buck	BCM Zero Current & Valley Voltage Switching for >97% Efficiency, Low BOM Cost Due to Low Power Stress	SOIC8E
MP24830	Offline	Offline	Ext. FET	1, 2, 4	Ext. FET	0.2	50 to 365	√	Buck Boost	Power Leverage LED Driver in 2.5-Power Stage, Low BOM Cost & High Efficiency for Large TV	SOIC14, QFN14 (Coming)

EL DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	Switching Freq (kHz)	Open LED Protection	Type	Notes	Package
MP3802	1.8	5.5	120V AC (240Vpp)	-	-	-	240 EL Lamp	-	EL Lamp Driver	240Vpp AC Output EL	MSOP8 QFN8 (3x3)
MP3801	2.5	5.5	95 AC (190Vpp)	-	-	-	240 EL Lamp	-	EL Lamp Driver	190Vpp AC Output EL	MSOP8

E-FUSE & LOAD SWITCHES

USB LOAD SWITCHES

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Cont Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Note	Package
Single Channel									
MP6205	2.7	5.5	0.5	1	Active High	Over-Current, Active Low	No	Single 500mA Current-Limit Switch, p2p TPS2041B/51B	QFN8 (2x3) MSOP8E SOIC8E
MP62055 (-3)	2.7	5.5	0.5	1.1	Active High	Over-Current, Active High	No	0.5A Current-Limit Switch, Small Package, Industry Standard, Pin Out, p2p TPS2051B	TSOT23-5 SOIC8 (62055-3)
MP62130 MP62131	2.7	5.5	0.5	1.1	Active Low Active High	Over-Current, Active Low	Yes	Single 500mA Current-Limit Switch With Output Discharge, p2p LM3525M-L	MSOP8 SOIC8
MP62061	2.7	5.5	0.7	1.25	Active High	Over-Current, Active High	No	Single 700mA Current-Limit Switch, p2p TPS2051B	MSOP8E SOIC8E
MP62071	2.7	5.5	0.8	1.1	Active High	Over-Current, Active High	No	Single 800mA Current-Limit Switch, p2p TPS2051B	MSOP8E
MP6211	2.7	5.5	1	2.2	Active High	Over-Current, Active Low	No	Single 1A Current-Limit Switch, p2p TPS2051B	SOIC8E MSOP8E
MP6212	2.7	5.5	1	2.2	Active Low	Over-Current, Active Low	No	Single 1A Current-Limit Switch with 90µA Iq & 1.5A Current-Limit	SOIC8E MSOP8E
MP6211-3 MP6212-3	2.7	5.5	1	2.2	Active High Active Low	Over-Current, Active Low	No	Single 1A Current-Limit Switch, FLAG Output Remains Low After a Short Circuit or Thermal Current-Limit Event	SOIC8E MSOP8E
MP6215	2.7	5.5	1.5	2.3	Active High	Over-Current, Active Low	No	Single 1.5A Current-Limit Switch	MSOP8E
MP62170 MP62171	2.7	5.5	1.5	2.3	Active Low Active High	Over-Current, Active Low	No	1.5A Current-Limit Switch, p2p TPS2061 and p2p TPS2065	SOIC8 MSOP8
MP62170-1 MP62171-1 MP62171-3	2.7	5.5	1.5	2.3	Active Low Active High	Over-Current, Active Low	Yes	1.5A Current-Limit Switch with Output Discharge, p2p TPS2061 and p2p TPS2065	SOIC8 MSOP8
MP62550 MP62551	2.5	5.5	1.5	1.7	Active Low Active High	Over-Current, Active Low	No	Precision Adjustable Current-Limited Power Distribution Switch 60mA, 1.7A, 88/100mΩ @100mA, 1.5µA Max Shutdown Current	TQFN6 (2x2) TSOT23-6
MP62040	1.7	5.5	2	-	Active Low	-	No	Single Channel, up to 2A Continuous Current in Ultra Small Package	UTQFN4
MP62040-1 MP62041-1	1.7	5.5	2	-	Active Low Active High	-	Yes	Single Channel, up to 2A Continuous Current with Output Discharge in Ultra Small Package	UTQFN4
MP62160 MP62161	2.7	5.5	2	2.8	Active Low Active High	Over-Current, Active Low	Yes	2A Current-Limit Switch with Output Discharge	QFN8E MSOP8E SOIC8
MP62180 MP62181	2.7	5.5	2	2.8	Active Low Active High	Over-Current, Active Low	No	2A Current-Limit Switch, Without Output Discharge Version of MP62160/1	QFN8E MSOP8E SOIC8
MP62260 MP62261	2.7	5.5	2	3	Active Low Active High	Over-Current, Active Low	No	2A,50mΩ Rds(on),Current-Limit Switch, p2p TPS2024 and p2p TPS2034	SOIC8
MP62260-1 MP62261-1	2.7	5.5	2	3	Active Low Active High	Over-Current, Active Low	Yes	2A,45mΩ Rds(on),Current-Limit Switch with Output Discharge, p2p TPS2024 and p2p TPS2034	SOIC8
Dual Channel									
MP62350 MP62351	2.7	5.5	0.5	0.75	Active Low Active High	Over-Current, Active Low	Yes	Dual 500 mA/ch Current-Limit Switch, p2p LM3526	SOIC8 MSOP8
MP6231 MP6232	2.7	5.5	0.5	1.1	Active High Active Low	Over-Current, Active High	No	Dual 500 mA/ch Current-Limit Switch, p2p TPS2052B and p2p TPS2042B	SOIC8 SOIC8E MSOP8E
MP62340 MP62341	2.7	5.5	1	1.5	Active Low Active High	Over-Current, Active Low	No	3.3V/5V Dual 1A Current-Limit Switch, p2p TPS2066/2	MSOP8E SOIC8
MP62340-1 MP62341-1	2.7	5.5	1	1.5	Active Low Active High	Over-Current, Active Low	Yes	3.3V/5V Dual 1A Current-Limit Switch with Output Discharge, p2p TPS2066/2	MSOP8E SOIC8
MP6233	2.7	5.5	1.5	2.6	Active High	Over-Current, Active Low	No	1.5A Current-Limit Switch	MSOP8E
MP5073	0.5	5.5	2	2	Active High	-	No	5.5V, 2.5A Low Rds(on) Load Switch with Programmable Current-Limit	QFN12 (2x2)
MP5077	0.5	5.5	7.5	7.5	Active High	-	No	5.5V, 7.5A Low Rds(on) Load Switch with Programmable Current-Limit	QFN12 (2x2)

ELECTRONIC FUSES (INTEG HOT-SWAP SWITCHES)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Cont Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Note	Package
MP6219	2.7	5.5	2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-2A Programmable Current-Limit, 1.4ms Turn-On Time	SOIC8E
MP5002	2.5	6	3	Prog.	Active High	Thermal Fault = Tri-State	No	3.3V, 56mΩ Rds(on), Programmable Current-Limit with Built-In Protection and Fault Indication, with Slew-Rate Control	QFN10 (3x3)
MP5003	2.5	6	3	Prog.	Active High	Thermal Fault = Tri-State	No	3.3V, 44mΩ Rds(on), Programmable Current-Limit with Slew-Rate Control & Automatic Startup After Thermal Protection	QFN10 (3x3)
MP5010A	3	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A,40mΩ Rds(on), Programmable Current-Limit & Slew-Rate Control,3A/ 2.13A Trip/ Hold Current, 3ms Soft-Start Time	QFN10 (3x3)
MP5010B	3	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A,40mΩ Rds(on), Programmable Current-Limit & Slew-Rate Control,4.3A/ 3A Trip/ Hold Current, 2.58ms Soft-Start Time	QFN10 (3x3)
MP5010S	3.6	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A,40mΩ Rds(on), Programmable Current-Limit, p2p NIS5135	QFN10 (3x3)
MP5000S	10	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A,40mΩ Rds(on), Programmable Current-Limit & Slew-Rate Control,5.0A/ 3.7A Trip/ hold Current, p2p NIS5132	QFN10 (3x3)
MP5000A	10	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	Inrush Current Performance Improved Version of MP5000S, p2p NIS5132	QFN10 (3x3)
MP5006	4	10	5	Prog.	Active High	Thermal Fault = Tri-State	No	5V, 44mΩ Rds(on), Programmable Current-Limit with Slew-Rate Control and Automatic Start-Up/Retry After Thermal Protection	QFN10 (3x3)
MP5021	8	16	10	Prog. to 15A	Active Low	Current-Limit, Thermal Shut-Down and Damaged MOSFET	Yes	12V, 7mΩ Rds(on) Hot-Swap Protection Device with Current Monitoring	QFN22 (3x5)
MP5022	7	24	15	Prog.	Active Low	Current-Limit, Thermal Shut-Down and Damaged MOSFET	Yes	12V, 3mΩ Rds(on) Hot-Swap Protection Device With Current Monitoring	QFN22 (3x5)

MOTOR DRIVERS

BRIDGE RECTIFIER IC

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Rds(on) (mΩ)	Drain Source Rating (V)	Rise/Fall Time (ns)	Forward Voltage (V)	Reverse Recovery Time (ns)	Leakage Current (µA)	Output Current (A)	Notes	Package
MP8051	4	16	45	23	25.00	0.4	78	80	1	Integrated 2 MOSFETs and 2 Schottky Diodes, 0.45mm Height	TQFN (3x3)

FULL-BRIDGE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Boot Strap Supp (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn Off/On Delay (ns)	Notes	Package
MP8042	7.5	24	5	5	5	10	10	54/37	24V, 5A Dual-Channel Power Half-Bridge Driver	TSSOP20E
MP8049	5	26	-	5.5	5.5	5	5	30/30	24V, 5A Quad-Channel Power Half-Bridge Driver	QFN40 (5x5)

HALF-BRIDGE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Boot Strap Supp (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn Off/On Delay (ns)	Notes	Package
MP18021	9	16	100	1.5	2.5	12	9	16	100V High Frequency, N-MOSFET Half-Bridge Gate Driver with 1ns Matching Delay, p2p HIP2100, MIC4103/4, MAX5062, UCC27200, and LM5100/1	SOIC8E
MP18024	9	16	100	2.6	4.5	15	12	20	100V, 4A, High Frequency, Half-Bridge Gate Driver	SOIC8E
MP1906	10	16	80	0.4	1	50	30	80	80V, Half-Bridge, Gate Driver, Incl Input Signal Overlap Protection and Under-Voltage Lockout for Both Channels	SOIC8E
MP1907	6	18	100	1.5	2.5	12	9	20	100V, 2.5A, High Freq, Half-Bridge Gate Driver, Incl Input Signal Overlap Protection and UVLO Latch Function	QFN10 (3x3)
MP18021A	9	18	100	1.5	2.5	12	9	16	100V, 2.5A, High Frequency, Half-Bridge Gate Driver, Including New Package to MP18021, Consumer Grade	SOIC8E QFN8 (3x3)
MPQ18021A	9	18	100	1.5	2.5	12	9	16	100V, 2.5A, High Frequency, Half-Bridge Gate Driver	SOIC8E QFN8 (3x3)
MPQ8039	7.5	25	5	9.0	9	20	20	70	9A, 25V Integrated Half-Bridge and Driver	SOIC8E
MP8040	7.5	25	5	9.0	9	20	20	70	9A, 25V Integrated Half-Bridge and Driver	SOIC8E
MP8044	7.5	25	-	-	-	-	-	-	22V, 4A Dual-Channel Power Half-Bridge	TSSOP20F

BRUSHLESS DC MOTOR DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	V_{HB} (V)	I_Q (mA)	Type	Notes	Package
MP6505	4.5	16	400	1.2	1.4	Single-Phase	Single-Phase Brushless DC Motor Driver w/ IOVP, OCP, Built-in Locked-Rotor Protection	TSSOP16 (5x6.4) QFN16 (3x3)
MP6510	4.5	16	1200	1.2	1.4	Single-Phase	Single-Phase Brushless DC Motor Driver w/ IOVP, OCP, Built-in Locked-Rotor Protection	TSSOP16 (5x6.4)

STEPPER DC MOTOR DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	V_{HB} (V)	I_Q (mA)	Type	Notes	Package
MP6507	2.7	15	700	-	1.1	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	TSSOP16 (5x6.4) QFN16 (3x3)

PRECISION ANALOG

ANALOG SWITCH

Part Number	Vin (Min) (V)	Vin (Max) (V)	Channels	T_{ON} (ns)	T_{OFF} (ns)	R_{ON} (Max) (Ω)	Notes	Package
MP2735	1.65	5.5	2	29	23	0.45	Low Voltage Dual SPDT Analog Switch	QFN10 (1.4x1.8)
MP2736	1.65	5.5	2	29	23	0.45	Low Voltage Dual SPDT Analog Switch with EN Function	QFN10 (1.4x1.8)

HIGH–SIDE CURRENT SENSE AMPLIFIERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (Typ) (µA)	PSRR (%/V)	Offset Voltage (mV)	Notes	Package
MP8110	2.5	40	12	0.05	0.5	High-Side Current Sense	SOIC8 MSOP8

OPERATIONAL AMPLIFIERS

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)	Notes	Package
MP8102	1.8	5.5	200	7.5	80	0.1	1	Ultra-Low Power 1.8V, 600kHz Op Amp	TSOT23-5
MP8101	1.8	5.5	400	11	80	0.2	1	Ultra-Low Power 1.8V, 400kHz Op Amp	TSOT23-5
MP8103	1.8	5.5	200	14	80	0.1	1	Dual Ultra-Low Power 1.8V, 600kHz Op Amp	MSOP8
MP8104	1.8	5.5	400	11	80	0.2	1	Ultra-Low Power 1.8V, 400kHz Op Amp w/ Industry Standard Pin Out	TSOT23-5
MP5120	3.2	18	14000	1600	85	45	2	Single-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSOT-5
MP5220	3.2	18	14000	3200	85	45	2	Dual-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	MSOP-8
MP5420	3.2	18	14000	6400	85	45	2	Quad-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSSOP-14
MP5121	3.2	20	14000	1600	85	45	2	Single-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSOT-5
MP5221	3.2	20	14000	3200	85	45	2	Dual-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	MSOP-8
MP5421	3.2	20	14000	6400	85	45	2	Quad-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSSOP-14
MP8130	2.7	36	100	10	80	0.1	1	Ultra-Low Power 36V, 200kHz, High-Voltage Op Amp	TSOT23-5

VOLTAGE REFERENCE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	Initial Acc (%)	Operating Current (mA)	Z_{OUT} (Ω)	Description	Notes	Package
MP8201	1.2	12	1.2 - 10	0.5	60µA to 20mA	1	1.0V Shunt Reference	Precision Adjustable Shunt Voltage Regulator	SOT23
MP8200	1	12	1	1	100µA to 10mA	0.5	1.0V Shunt Reference	Precision Shunt Reference	SOT23

PART NUMBERING NOMENCLATURE

PART NUMBERING EXAMPLE: MP1234EK–LF–Z

MP		1234	E		K						–LF	–Z
Monolithic Power		**Part Number**	**Temperature Grade (T_A)**		**Package**						**Lead Free**	**Tape & Reel**
MP### MP#### MP##### MPQ#### HF#### NB###	Older Devices		C	0°C to +70°C	C	WLCSP	QM	QFN (6x7)	C	C-Spec	–LF	–Z
			D	-40°C to +85°C	D	QFN (2x3)	QN	QFN (7x7)	E	Enhanced		
			E	-20°C to +85°C	E	SC70	QP	QFN (7x8)	R	Reserve Lead Bend or Top Exposed Pad		
			H	-40°C to +125°C	F	TSSOP w/ EXPOSED PAD	QQ	QFN (8x8)	S	Customer Specific		
			K	-55°C to +125°C	FP	QFP	QV	QFN (3x5)	T	Thin Package		
					G	QFN (2x2)	QW	QFN (4x6)	U	Ultra Thin Package		
					H	MSOP w/ EXPOSED PAD	QX	QFN (6x10)				
					J	TSOT23 (0.9mm Height)	QY	QFN (5x8)				
					K	MSOP	R	QFN (4x4)				
					L	QFN (3x4)	S	SOIC				
					M	TSSOP	SD	SOD123				
					N	SOIC w/ EXPOSED PAD	T	SOT23 (1.1mm Height)				
					P	PDIP (300 Mil)	U	QFN (5x5)				
					Q	QFN (3x3)	V	QFN (4x5)				
					QD	QFN (1x1.5)	W	SOIC - WB w/ EXPOSED PAD				
					QF	QFN (1.2x1.6)	X	Sorted Wafer				
					QG	QFN (1.4x1.8)	XN	Unsorted Wafer				
					QH	QFN (1.5x2)	Y	SOIC-WB (Wide-Body)				
					QJ	QFN (5x6)	Z	TO220				
					QK	QFN (6x6)	ZF	TO263				
Parts introduced after July 2011												
MP### MP#### MP##### MPQ#### HF#### NB###	Newer Devices		G	Temperature Internal to Datasheet –40°C to +125°C (T_J) Standard	Same as Above						No LF Indicator	–Z

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