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Power supply IC selection guide



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Current mode PWM controllers

Part No.	Start-up current	Operating current	Vcc UVLO threshold		Supply voltage	Switching frequency	Output drive current	Ext. Vref	Ext. Vref tolerance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Synchronization	Inhibit	Features	Package types
	(max)	(typ)	Turn-on	Turn-off	(max)		(sink/source)			(max)	(min)	(max)						
	(μA)	(mA)	(typ)	(typ)	(V)	(kHz)	(A)	(V)	(%)	(%)	(°C)	(°C)						
			(V)	(V)	(V)	(kHz)	(A)	(V)	(%)	(%)	(°C)	(°C)						
UC2842A	500	12	16	10	30	Up to 500	1 / 1	5	2	100	-25	85	Yes	No	No	No		Minidip / SO-8
UC3842A	500	12	16	10	30	Up to 500	1 / 1	5	2	100	0	70	Yes	No	No	No		Minidip / SO-8
UC2843A	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	100	-25	85	Yes	No	No	No		Minidip / SO-8
UC3843A	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	100	0	70	Yes	No	No	No		Minidip / SO-8
UC2844A	500	12	16	10	30	Up to 500	1 / 1	5	2	50	-25	85	Yes	No	No	No		Minidip / SO-8
UC3844A	500	12	16	10	30	Up to 500	1 / 1	5	2	50	0	70	Yes	No	No	No		Minidip / SO-8
UC2845A	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	50	-25	85	Yes	No	No	No		Minidip / SO-8
UC3845A	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	50	0	70	Yes	No	No	No		Minidip / SO-8
UC2842B	500	12	16	10	30	Up to 500	1 / 1	5	2	100	-25	85	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC3842B	500	12	16	10	30	Up to 500	1 / 1	5	2	100	0	70	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC2843B	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	100	-25	85	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC3843B	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	100	0	70	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC2844B	500	12	16	10	30	Up to 500	1 / 1	5	2	50	-25	85	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC3844B	500	12	16	10	30	Up to 500	1 / 1	5	2	50	0	70	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC2845B	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	50	-25	85	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
UC3845B	500	12	8.4	7.6	30	Up to 500	1 / 1	5	2	50	0	70	Yes	No	No	No	Improved oscillator accuracy	Minidip / SO-8
L5991	120	9	15	10	21	Up to 1000	1.5 / 2	5	4	100	0	105	Yes	Yes	Yes	Yes	Programmable duty cycle limit Hiccup mode (second side short detection) Standby function (frequency foldback) Leading edge blanking	DIP16 / SO-16
L5991A	120	9	8.4	7.6	21	Up to 1000	1.5 / 2	5	4	100	0	105	Yes	Yes	Yes	Yes	Programmable duty cycle limit Hiccup mode (second side short detection) Standby function (frequency foldback) Leading edge blanking	DIP16 / SO-16
L5993	120	9	15	10	21	Up to 1000	1.5 / 2	5	4	100	0	105	Yes	Yes	Yes	Yes	Programmable duty cycle limit Hiccup mode (second side short detection) Constant power limiting vs synch frequency Leading edge blanking	DIP16 / SO-16
TDA4605	800	11	12	5	20	< 200 (free running)	1.5 / 1.5	n.a.	n.a.	n.a.	-20	85	Yes	Yes	No	No	Overload protection Burst mode Overtemperature protection	DIP8 / SO-8

Voltage mode PWM controllers

Part No.	Start-up current	Operating current	Vcc UVLO threshold		Supply voltage	Switching frequency	Output drive current (sink/source)	Ext. Vref	Ext. Vref tolerance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Synchronization	Inhibit	Features	Package types
	(max)	(typ)	Turn-on (typ)	Turn-off (typ)	(max)		(max)	(typ)	(max)	(max)	(min)	(max)						
	[μ A]	[mA]	[V]	[V]	[V]	[kHz]	[A]	[V]	[%]	[%]	[$^{\circ}$ C]	[$^{\circ}$ C]						
SG3524	n.a.	8	8	n.a.	40	Up to 300	0.1 / 0.1	5	8	45	0	70	Yes	No	No	Yes	Shutdown	DIP16 / SO-16
SG2525	n.a.	14	8	7.5	40	Up to 500	0.5 / 0.5	5.1	2	49	-25	85	No	Yes	Yes	Yes	Shutdown	DIP16 / SO-16-narrow
SG3525	n.a.	14	8	7.5	40	Up to 500	0.5 / 0.5	5.1	3	49	0	70	No	Yes	Yes	Yes	Shutdown	DIP16 / SO-16-narrow
TEA2261	1400	7.5	10.3	7.4	0	10 to 100	2.5 / 1.5	n.a.	n.a.	70	-20	70	Yes	Yes	No	No	Overvoltage protection	DIP16
TEA2262	500	6.5	11.8	8.5	20	10 to 150	1.5 / 1.5	n.a.	n.a.	70	-20	70	Yes	Yes	No	No	Overvoltage protection	DIP16

Resonant and quasi-resonant controllers

Part No.	Start-up current	Operating current	Vcc UVLO threshold		Supply voltage	Switching frequency	Output drive current (sink/source)	Ext. Vref	Ext. Vref tolerance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Synchronization	Inhibit	Features	Package types
	(max)	(typ)	Turn-on (typ)	Turn-off (typ)	(max)		(max)	(typ)	(max)	(max)	(min)	(max)						
	[μ A]	[mA]	[V]	[V]	[V]	[kHz]	[A]	[V]	[%]	[%]	[$^{\circ}$ C]	[$^{\circ}$ C]						
L6598	250	2	10.7	8	14.6	Up to 400	0.25 / 0.45	n.a.	n.a.	50, fixed	0	70	No	Yes	No	Yes		DIP16 / SO-16
L6565	70	3.5	13.5	9.5	18	< 220 (free running)	0.40 / 0.40	n.a.	n.a.	n.a.	-25	125	Yes	No	Yes	Yes	Constant power Frequency foldback Hiccup mode (second side short detection)	Minidip-8 / SO-8

Half bridge drivers

Part No.	Operating current	Vcc UVLO threshold		Supply voltage	Logic inputs	No. of outputs	Output voltage	Output drive current (sink/source)		Output drive current (rise/fall)		Operating temperature range		Integrated bootstrap diode	Shutdown	Features	Package types
	(typ)	Turn-on (typ)	Turn-off (typ)	(max)		(typ)	(max)	(min)	(min)	(typ)	(typ)	(min)	(max)				
	[μ A]	[V]	[V]	[V]		[V]	[V]	[A]	[A]	[ns]	[ns]	[$^{\circ}$ C]	[$^{\circ}$ C]				
L6384	380	12	10	14.6	1	2	580	0.5	0.3	70	30	-45	125	Yes	Yes	Adjustable dead-time	Minidip / SO-8
L6385	250	9.6	8.3	17	2	2	580	0.45	0.3	50	30	-45	125	Yes	No	Driving section undervoltage lockout	Minidip / SO-8
L6386	250	12	10	17	2	2	580	0.5	0.3	50	30	-45	125	Yes	Yes	Driving section undervoltage lockout Additional comparator	DIP14 / SO-14
L6387	250	6	5.5	17	2	2	580	0.45	0.3	50	30	-45	125	Yes	No	HIGH / LOW side interlocking feature	Minidip / SO-8

Synchronous rectifier smart drivers

Part No.	Operating current	Vcc UVLO threshold		Supply voltage	Switching frequency	Output drive current		Output timing @5nF load		Duty cycle	Operating temperature range		Inhibit	Features	Package types	Main topologies
		Turn-on	Turn-off			(sink/source)		(rise/fall)			min	max				
		(typ)	(typ)			(max)	(max)	(typ)	(typ)		(min)	(max)				
		[mA]	[V]			[V]	[V]	[kHz]	[A]		[A]	[ns]				
STSR2	22	3.8	3.6	5.5	750	3.5	2	40	30	13 / 0	-40	125	Yes	Continuous and discontinuous mode	SO-8	Forward
STSR3	15	3.8	3.6	5.5	750	3.5	2	40	30	13	-40	125	Yes	Continuous and discontinuous mode	SO-8	Flyback



PFC controllers

Part No.	Start-up current	Operating current	Vcc UVLO threshold		Supply voltage	Switching frequency	Output drive current (sink/source)	Ext. Vref	Ext. Vref tolerance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Synchronization	Inhibit	Features	Package types
	(max)	(typ)	Turn-on (typ)	Turn-off (typ)	(max)		(max)	(typ)	(max)	(max)	(min)	(max)						
	[μA]	[mA]	[V]	[V]	[V]	[kHz]	[A]	[V]	[%]	[%]	[°C]	[°C]						
L4981A	500	12	15.5	10	19.5	Up to 200	2 / 1.5	5.1	2.5	95	-25	85	Yes	Yes	Yes	Yes	Continuous conduction mode Programmable UVL	DIP20 / SO-20
L4981B	500	12	15.5	10	19.5	Up to 200	2 / 1.5	5.1	2.5	95	-25	85	Yes	Yes	No	Yes	Continuous conduction mode Programmable UVL Frequency modulation	DIP20 / SO-20
L6561	90	4	12	9.5	18	–	0.7 / 0.7	n.a.	n.a.	–	-25	125	No	Yes	No	Yes	Transition mode Precise overvoltage protection	Minidip / SO-8
L6560	500	3.2	14.5	10	18	–	0.7 / 0.7	n.a.	n.a.	–	-25	85	No	Yes	No	No	Transition mode Precise overvoltage protection	Minidip / SO-8
L6560A	500	3.2	12	9.6	18	–	0.7 / 0.7	n.a.	n.a.	–	-25	85	No	Yes	No	No	Transition mode Precise overvoltage protection	Minidip / SO-8



[illegible]

VIPer100A	50	100	700	3	2.8	15.5	11	8	12.6	Up to 200	95	0	100	Yes	Yes	Yes	Yes	Standby function (burstmode) Overvoltage protection Overtemperature protection High voltage startup current source	PENTAWATT HV PENTAWATT HV (022Y) PowerSO-10
VIPer100	50	100	620	3	2.5	15.5	11	8	12.6	Up to 200	95	0	100	Yes	Yes	Yes	Yes	Standby function (burstmode) Overvoltage protection Overtemperature protection High voltage startup current source	PENTAWATT HV PENTAWATT HV (022Y) PowerSO-10

Supervisory ICs

Part No.	Operating current	Supply voltage			Voltage reference			Operational amplifier		Comparators	Operating temperature range		Features	General description	Package types
					Voltage	Adjustable	Tolerance	Current	Gain bandwidth product		(min)	(max)			
					(nom)		(max)	(max)	(typ)						
					[V]		[%]	[mA]	[MHz]		[°C]	[°C]			
TSM100	0.9	5	30	n.a.	—	—	—	1	0.9	1	-40	105		Single operational amplifier Single comparator	SO-8
TSM101	< 2	4.5	32	1.24	Yes	1 / 2.4	10	2	1	n.a.	-40	105	Additional built-in current source with enable Ored amplifier output	Voltage and current controller for SMPS	SO-8 DIP-8
TSM102	0.8	4.5	32	2.5	Yes	0.4 / 1	100	2	2.1	2	-40	85		Voltage and current controller for SMPS	SO-16 DIP-16
TSM103	0.7	3	32	2.5	No	0.4 / 1	100	2	0.9	n.a.	-40	105	Voltage reference internally connected to Amplifier 1	Dual operational amplifiers Voltage reference	SO-8
TSM104	1.4	1.5	30	2.5	Yes	0.4 / 1	100	4	0.9	n.a.	-40	105		Quad operational amplifiers Programmable voltage reference	SO-16 DIP-16
TSM1051	1.1	2.5	12	1.21	No	1	—	2	—	n.a.	0	85	Additional voltage sense input	Voltage and current controller for battery chargers and adapters	SOT23-6 SO-8
TSM111	5	15	36	2.5	Yes	1.6	15	n.a.	n.a.	8	0	70	Overcurrent and overvoltage control with programmable delay Undervoltage detection Power good output with programmable delay	Triple voltage and current supervisor	SO-20 DIP-20
TSM112	3	4.5	24	2.5	No	1.6	20	4	n.a.	5	0	85	Undervoltage and overvoltage control Adjustable undervoltage blanking Power good input/output with programmable delay	3.3V, 5V, 12V housekeeping IC	SO-14 SO-14 DIP-14
TSM221	0.5	2.7	16	n.a.	—	—	—	2	1	2	-40	125	Rail-to-rail amplifier inputs and outputs	Dual operational amplifiers Dual comparators	SO-14 DIP-14

Voltage reference ICs

Part No.	Supply voltage		Reference voltage	Reference adjustable	Tolerance	Temperature coefficient	Cathode current		Operating temperature range		Features	General description	Package types
	(min)	(max)	(nom)		(max)	(max)	(min)	(max)	(min)	(max)			
	[V]	[V]	[V]		[%]	[ppm / °C]	[μA]	[mA]	[°C]	[°C]			
TS431	1.24	6	1.240	Yes	0.5 / 1 / 2	100	60	30	-40	125		Micropower shunt voltage reference	SOT-23L TO-92
TS821	–	–	1.225	No	0.5 / 1 / 2	120	45	12	-40	85		Micropower shunt voltage reference	SOT-23L TO-92
TS4041	–	–	1.225	No	0.5 / 1 / 2	120 / 150	65	12	-40	85		Micropower shunt voltage reference	SOT23-3L TO-92
TS822	–	–	2.50	No	1 / 2	100	50	15	-40	85		Micropower shunt voltage reference	SOT23-3L TO-92
TS4040	–	–	2.50	No	1 / 2	150	60	15	-40	85		Micropower shunt voltage reference	SOT23-3L TO-92
TS824-1.2	–	–	1.225	No	1	50	40	12	-40	85	High thermal stability	Micropower shunt voltage reference	SOT23-3L
TS824-2.5	–	–	2.500	No	0.5 / 1	50	60	15	-40	85	High thermal stability	Micropower shunt voltage reference	SOT23-3L
TL431	2.495	36	2.495	Yes	1 / 2	100	600	100	-40	105		General purpose shunt voltage reference	SO-8 TO-92
TL1431	2.500	36	2.500	Yes	0.25 / 0.4	90	600	100	-40	105		General purpose shunt voltage reference	SO-8 TO-92
TS2431	2.5	24	2.5	Yes	0.5 / 1 / 2	100	800	100	-40	105		General purpose shunt voltage reference	SOT23-3L
LM236	–	–	2.49	Yes	2	100	400	10	-25	85		General purpose shunt voltage reference	SO-8 TO-92
LM336	–	–	2.49	Yes	4	100	400	10	0	70		General purpose shunt voltage reference	SO-8 TO-92
MC1403	4.5	40	2.5	No	1	40	–	10	0	70		General purpose serial reference	SO-8

Current reference ICs

Part No.	Supply voltage		Reference current		Reference adjustable	Tolerance	Temperature coefficient	Operating temperature range		Features	General description	Package types
	(min)	(max)	(min)	(max)		(max)	(max)	(min)	(max)			
	[V]	[V]	[µA]	[mA]		[%]	[ppm / °C]	[°C]	[°C]			
LM134	1	40	2	1	Yes	8	–	-55	125		Current source	S0-8 TO-92
LM234	1	40	2	1	Yes	8	–	-25	100		Current source	S0-8 TO-92
LM334	1	40	2	1	Yes	12	–	0	70		Current source	S0-8 TO-92

Step-down converters

Part No.	Operating load current	Total operating quiescent current	Shutdown current	Input voltage		Output voltage		Switching frequency	Ext. Vref	Vref tolerance	Duty cycle	Efficiency	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	Synchronization	Features	Package types
	(max)	(typ)	(typ)	(min)	(max)	(min)	(max)		(typ)	(max)	(max)	(typ)	(min)	(max)						
	[A]	[mA]	[μA]	[V]	[V]	[V]	[V]		[V]	[%]	[%]	[%]	[°C]	[°C]						
ST763AB	0.5	0.6	0.2	3.3	11	–	Fixed 3.3	200	1.25	5.6	–	90	-40	85	Yes	Yes	Yes	No		DIP8 / SO-8
ST763AC	0.5	0.6	0.2	3.3	11	–	Fixed 3.3	200	1.25	5.6	–	90	0	70	Yes	Yes	Yes	No		DIP8 / SO-8
MC34063EB	0.5	1.5	–	1.5	50	1.25	–	< 100 (free running)	n.a.	–	86	–	-40	125	Yes	No	No	No		DIP8 / SO-8
MC34063EC	0.5	1.5	–	1.5	50	1.25	–	< 100 (free running)	n.a.	–	86	–	0	70	Yes	No	No	No		DIP8 / SO-8
L4976	1	2.5	–	8	55	0.5	50	Adjustable up to 300	5.1	1	95	86	0	125	Yes	No	No	–	Thermal shutdown Feedback disconnect protection	Minidip SO-16W
L5970	1	3	50	4.4	36	1.235	35	(250 fixed) Sync. up to 600	3.3	2	100	85	-40	125	Yes	No	Yes	Yes	Thermal shutdown Feedback disconnect protection No bootstrap capacitor	SO-8
L6902	1	3	–	8	36	1.235	34	250	3.3	2	100	90	0	125	Yes	Yes	No	No	Adjustable current limit Thermal shutdown Feedback disconnect protection No bootstrap capacitor	SO-8
L5971	1.5	3	100	6.5	28	1.26	20	Adjustable up to 300	n.a.	n.a.	100	85	-40	125	Yes	Yes	Yes	–	Thermal shutdown Feedback disconnect protection	Minidip SO-16W
L5972	1.5	3	–	4.4	36	1.235	35	(250 fixed) Sync. up to 600	n.a.	n.a.	100	85	-40	125	Yes	No	No	No	Thermal shutdown Feedback disconnect protection No bootstrap capacitor	SO-8
L4962	1.5	15	–	9	46	5.1	40	Adjustable up to 200	n.a.	n.a.	100	75	0	125	Yes	Yes	No	–	Thermal shutdown	Powerdip12 Heptawatt
L4963	1.5	11	50	9	46	5.1	40	< 83 (free running)	5.1	2	100	75	0	125	Yes	No	Yes	–	Reset and powerfail output Thermal shutdown	Powerdip12 SO-20
L4971	1.5	4	150	8	55	3.3	50	Adjustable up to 300	n.a.	n.a.	97	86	0	125	Yes	No	Yes	–	Thermal shutdown Feedback disconnect protection	Minidip SO-16W
L5973	2	3	50	4.4	36	1.235	35	(250 fixed) Sync. up to 600	3.3	2	100	85	0	125	Yes	No	Yes	Yes	Thermal shutdown Feedback disconnect protection No bootstrap capacitor	HSOP8
L4972	2	16	–	15	50	5.1	40	Adjustable up to 200	5.1	2	90	85	0	125	Yes	Yes	No	–	Reset and powerfail output Thermal shutdown	Powerdip20 SO-20
L4978	2	4	150	8	55	3.3	50	Adjustable up to 300	n.a.	n.a.	97	87	0	125	Yes	Yes	Yes	–	Thermal shutdown Feedback disconnect protection	Minidip SO-16W
L4960	2.5	30	–	9	46	5.1	40	Adjustable up to 150	n.a.	n.a.		85	0	125	Yes	Yes	No	–	Thermal shutdown	Heptawatt

Step-down converters (continued)

Part No.	Operating load current	Total operating quiescent current	Shutdown current	Input voltage		Output voltage		Switching frequency	Ext. Vref	Vref tolerance	Duty cycle	Efficiency	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	Synchronization	Features	Package types
	(max)	(typ)	(typ)	(min)	(max)	(min)	(max)		(typ)	(max)	(max)	(typ)	(min)	(max)						
	[A]	[mA]	[μA]	[V]	[V]	[V]	[V]		[V]	[%]	[%]	[%]	[°C]	[°C]						
L4973	3.5	4	150	8	55	0.5	50	Adjustable up to 300	5.1	1.5	97	85	0	125	Yes	Yes	Yes	–	Thermal shutdown Feedback disconnect protection	Powerdip18 SO-20
L4974	3.5	16	–	15	50	5.1	40	Adjustable up to 200	5.1	2	90	85	0	125	Yes	Yes	No	–	Reset and powerfail output Thermal shutdown	Powerdip20
L296	4	66	10	9	46	5.1	40	Adjustable up to 200	n.a.	n.a.	100	85	0	125	Yes	Yes	Yes	–	Adjustable current limit Reset output Thermal shutdown	Multiwatt 15 H
L4975	5	16	–	15	50	5.1	40	Adjustable up to 500	5.1	2	90	85	0	125	Yes	Yes	No	–	Reset and powerfail output Thermal shutdown	Multiwatt 15 V
L4977	7	16	–	15	50	5.1	40	Adjustable up to 500	5.1	2	90	80	0	125	Yes	Yes	No	–	Reset and powerfail output Thermal shutdown	Multiwatt 15 V
L4970	10	16	–	15	50	5.1	40	Adjustable up to 500	5.1	2	90	80	0	125	Yes	Yes	No	–	Reset and powerfail output Thermal shutdown	Multiwatt 15 V

Step-up converters

Part No.	Peak switch current	Total operating quiescent current	Shutdown current	Input voltage		Output voltage		Switching frequency	Ext. Vref	Vref tolerance	Duty cycle	Efficiency	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	Synchronization	Features	Package types
	(max)	(typ)	(typ)	(min)	(max)	(min)	(max)		(typ)	(max)	(max)	(typ)	(min)	(max)						
	[A]	[mA]	[μA]	[V]	[V]	[V]	[V]		[V]	[%]	[%]	[%]	[°C]	[°C]						
ST5R	0.8	0.017	–	0.8	5.5	–	Fixed: 2.5/ 2.8/3.0/ 3.3/5.0	< 150 (free running)	n.a.	–	77	85	-25	85	Yes	–	No	No		SOT23-5L SOT-89
L6920	0.8	0.011	0.1	0.6	6	2	5.2	< 220 (free running)	1.23	4	83	93	-40	85	Yes	No	Yes	No	Synchronous rectifier Low battery detection Reverse polarity protected	TSSOP8
MC34063EB	1.5	1.5	–	1.5	50	1.25	–	< 100 (free running)	n.a.	–	86	–	-40	125	Yes	No	No	No		DIP8 / SO-8
MC34063EC	1.5	1.5	–	1.5	50	1.25	–	< 100 (free running)	n.a.	–	86	–	0	70	Yes	No	No	No		DIP8 / SO-8
ST755	2	1.2	10	2.7	11	-10	0	160	1.25	5.6	–	68	-40	85	Yes	Yes	Yes	No		DIP8 / SO-8

DC/DC controllers

Part No.	Total operating quiescent current	Shutdown current	Input voltage		Output voltage		Switching frequency	Output drive current	Ext. Vref	Vref tolerance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	Synchronization	Features	Package types
	(typ)	(typ)	(min)	(max)	(min)	(max)		(sink/source)				(min)	(max)						
	[mA]	[μA]	[V]	[V]	[V]	[V]		(max)	(typ)	(max)	(max)	[°C]	[°C]						
TSM108	4	150	7	60	2.59	9	Up to 300	0.04 / 0.08	2.52	3	95	-25	85	Yes	No	Yes	-	Adjustable current limit Under / overvoltage lockout	SO-14

Charge pumps

Part No.	Operating load current	Total operating quiescent current	Shutdown current	Input voltage		Output voltage		Switching frequency	Ext. Vref	Vref tolerance	Duty cycle	Efficiency	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	Synchronization	Features	Package types
	(max)	(typ)	(typ)	(min)	(max)	(min)	(max)		(typ)	(max)	(max)	(typ)	(min)	(max)						
	[A]	[mA]	[μA]	[V]	[V]	[V]	[V]		[V]	[%]	[%]	[%]	[°C]	[°C]						
ST662AB	0.03	0.1	1	4.5	6	–	Fixed 12	400	n.a.	–	–	72	-40	85	No	–	Yes	No		DIP8 / SO-8
ST662AC	0.03	0.1	1	4.5	6	–	Fixed 12	400	n.a.	–	–	72	0	70	No	–	Yes	No		DIP8 / SO-8
ST619	0.03	0.2	0.02	2	5.5	–	Fixed 5	500	n.a.	–	–	82	-40	85	No	–	Yes	No		DIP8 / SO-8

VRM controllers

Part No.	Total operating quiescent current	Shutdown current	Operating supply voltage		Input voltage		Output voltage		Switching frequency	HS output resistance or drive current (sink/source)	LS output resistance or drive current (sink/source)	Ext. Vref	Vref toler- ance	Duty cycle	Operating temperature range		Cycle by cycle current limit	Soft start	Inhibit	No. of phases	Synchro- nization	Features	Package types
	(typ)	(typ)	(min)	(max)	(min)	(max)	(min)	(max)		(sink/source)	(sink/source)	(typ)	(max)	(max)	(min)	(max)							
	[mA]	[μ A]	[V]	[V]	[V]	[V]	[V]	[V]		(max)	(max)	[V]	[%]	[%]	[$^{\circ}$ C]	[$^{\circ}$ C]							
L6910	7	–	4.6	12	–	12	0.9	Vin	Up to 1MHz	2 Ω /1.3A	1.5 Ω /1.1A	0.9	2	100	0	125	Yes	Yes	Yes	1	–	Crowbar overvoltage protection Adjustable current limit	SO-16 narrow
L6911C	5	–	4.6	12	–	12	1.300	3.500	Up to 1MHz	2 Ω /1.3A	1.5 Ω /1.1A	n.a.	–	100	0	70	Yes	Yes	Yes	1	–	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-20
L6911D	5	–	4.6	12	–	12	1.100	1.850	Up to 1MHz	2 Ω /1.3A	1.5 Ω /1.1A	n.a.	–	100	0	70	Yes	Yes	Yes	1	–	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-20
L6911E	5	–	4.6	12	–	12	1.050	1.825	Up to 1MHz	2 Ω /1.3A	1.5 Ω /1.1A	n.a.	–	100	0	70	Yes	Yes	Yes	1	–	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-20
L6917B	12	–	10.2	12	–	12	1.100	1.850	Up to 600KHz	2 Ω /2A	1.1 Ω /1.8A	n.a.	–	80	0	70	Yes	Yes	Yes	2	–	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-28
L6918	14	–	10.2	12	–	12	1.100	1.850	Up to 600KHz	2 Ω /2A	1.1 Ω /1.8A	n.a.	–	80	0	70	Yes	Yes	Yes	2	Master	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-28
L6918A	14	–	10.2	12	–	12	1.100	1.850	Up to 600KHz	2 Ω /2A	1.1 Ω /1.8A	n.a.	–	80	0	70	Yes	Yes	Yes	2	Slave	Binary programmable output voltage Crowbar overvoltage protection Adjustable current limit	SO-28
L6996	0.615	20	4.5	5.5	1	28	0.600	1.750	Up to 1MHz	–	–	Prog.	1	–	0	70	Yes	Yes	Yes	1	–	Crowbar overvoltage protection Adjustable current limit	TSSOP24
L6995	0.62	20	4.5	5.5	1	28	0.9	28	Up to 1MHz	–	–	0.9	1	–	0	70	Yes	Yes	Yes	1	–	Crowbar overvoltage protection Adjustable current limit	TSSOP20
L6997	0,62	20	3.3	5.5	1	28	0.6	28	Up to 1MHz	–	–	0.6	1	–	0	70	Yes	Yes	Yes	1	–	Crowbar overvoltage protection Adjustable current limit	TSSOP20
L5994	1.1	60	4.75	25	4.75	25	1.9 1.66	5.1 3.3	(200 or 300 fixed) sync. up to 1MHz	1A/1A	1A/1A	2.5	2	–	-40	140	Yes	Yes	Yes	2	Yes	Overvoltage protection Adjustable current limit Thermal shutdown Adjustable linear regulator 5V/40mA linear regulator	TQFP32

Reset ICs

Part No.	Operating current	Supply voltage		Threshold voltage	Tolerance	Output current	Operating temperature range		Features	General description	Package types
	(typ)	(min)	(max)	(nom)	(max)	(max)	(min)	(max)			
	[mA]	[V]	[V]	[V]	[%]	[mA]	[°C]	[°C]			
TL7702A	3.3	3.6	18	2.53	2	16	-25	85	Power-on reset generator Adjustable pulsewidth Complementary outputs	Supply voltage supervisor	SO-8 Minidip
TL7705A	3.3	3.6	18	4.55	1.1	16	-25	85	Power-on reset generator Adjustable pulsewidth Complementary outputs	Supply voltage supervisor	SO-8 Minidip
TS831	0.012	1	5.5	2.71/4.33/4.5	< 5.9	8	-40	125	Guaranteed reset operation down to 1 V supply Pin to pin compatible with MC33064 and MC33164	Micropower supply voltage supervisor	TSSOP8 SO-8 TO-92
TS836	0.012	1	5.5	4.5	< 5.9	8	-40	85	Guaranteed reset operation down to 1 V supply Pin to pin compatible with MC33064 and MC33164	Micropower supply voltage supervisor	TSSOP8 SO-8 TO-92
TS834	0.012	1	5.5	4.33	< 6.4	8	-40	85	Guaranteed reset operation down to 1.5 V supply Complementary reset outputs Power on 150 ms delay timer with disable	Micropower supply voltage supervisor	TSSOP8 SO-8

Standard positive regulators

Part No.	Output current	Output voltage options	Tolerance	Voltage drop @ lout max	Quiescent current @ lout min	Ground pin current @ lout max	Quiescent current @ shutdown	Input voltage	Operating temperature range		Inhibit	Features	Package types
	(max)	(nom)	(max)	(max)	(typ)	(typ)	(max)	(max)	(min)	(max)			
	[mA]	[V]	[%]	[mV]	[µA]	[mA]	[µA]	[V]	[°C]	[°C]			
LM138 LM238 LM338	5000	1.2 to 32	4	3000	–	0.1	n.a.	35	-55	150	No	Adjustable output	T0-3
LM150 LM250 LM350	3000	1.2 to 32	4	–	–	0.05	n.a.	40	-55	150	No	Adjustable output	T0-3
LM123 LM223 LM323	3000	5	5	2000	–	12	n.a.	15	-55	150	No		T0-3 T0-220
L78S00	2000	5/7.5/9/10/ 12/15/18/24	4	2300	–	4.2	n.a.	25	-55	150	No	Output transistor SOA protection	T0-3 T0-220
LM117 LM217 LM317	1500	1.2 to 37	4	2500	–	0.1	n.a.	40	-55	150	No	Adjustable output Output transistor SOA protection	T0-3 D2PAK T0-220 T0-220FP
L7800	1500	5/5.2/6/8/8.5/9/ 12/15/18/20/24	2/4	2500	–	6	n.a.	20	-55	150	No	Output transistor SOA protection	T0-3 D2PAK T0-220 T0-220FP
LM217M LM317M	500	1.2 to 37	4	–	–	0.1	n.a.	40	-40	125	No	Adjustable output Output transistor SOA protection	T0-220 DPAK TSOT-82 SOT-194
L78M00	500	5/6/8/9/10/12/ 15/18/20/24	2 / 4	2000	–	6	n.a.	20	-40	125	No	Output transistor SOA protection	T0-220 T0-220 FPDPAK TSOT-82 SOT-194
LM723	150	2 to 37	3	4000	2300	5	–	40	0	70	Yes	Adjustable output Adjustable current Positive or negative supply operation	DIP-14 SO-14
L78L00	100	3.3/5/6/8/9/12/ 15/18/24	5/10	1700	–	6	n.a.	20	-40	125	No		SO-8 SOT-89 T0-92
LM217L LM317L	100	1.2 to 37	4	–	–	0.1	n.a.	40	-40	125	No	Adjustable output Output transistor SOA protection	SO-8 T0-92

Standard negative regulators

Part No.	Output current	Output voltage options	Tolerance	Voltage drop @ lout max	Quiescent current @ lout min	Ground pin current @ lout max	Quiescent current @ shutdown	Input Voltage	Operating temperature range		Inhibit	Features	Package types
	(max)	(nom)	(max)	(max)	(typ)	(typ)	(max)	(max)	(min)	(max)			
	[mA]	[V]	[%]	[mV]	[μA]	[mA]	[μA]	[V]	[°C]	[°C]			
LM137 LM237 LM337	1500	-1.2 to -37	4	2700	—	0.07	n.a.	-40	-55	150	No	Adjustable output Output transistor SOA protection	T0-3 T0-220
L7900	1500	-5/-5.2/-6/-8/ -9/-12/-15/-18/ -20/-22/-24	4/5	1400	—	3	n.a.	-40	0	150	No	Output transistor SOA protection	T0-3 D2PAK T0-220 T0-220FP
L79L00	100	-5/-6/-8/-9/ -12/-15	5/10	1700	—	6	n.a.	-35	-40	125	No		SO-8 SOT-89 T0-92

Note: 1. Values in bold are over line, load and temperature variation 2. Values in brackets are transient specifications



Low dropout regulators

Part No.	Output current	Output voltage options	Tolerance	Voltage drop @ lout max	Quiescent current @ lout min	Ground pin current @ lout max	Quiescent current @ shutdown	Input voltage	Operating temperature range		Inhibit	Features	Package types
	(max)	(nom)	(max)	(max)	(typ)	(typ)	(max)	(max)	(min)	(max)			
	[mA]	[V]	[%]	[mV]	[μ A]	[mA]	[μ A]	[V]	[$^{\circ}$ C]	[$^{\circ}$ C]			
L4957A	5000	1.5/1.8/2.5/3.3	2	1500	600	–	–	14	0	125	No		Versawatt TO-220 D2PAK
LD1585C	5000	1.5/1.8/2.5/2.85/3.3/5/8/9/12/adj.	2	1400	–	5000	–	30	0	125	No	Adjustable output option Fast transient response	TO-220 D2PAK D2PAK/A
KD1084	5000	1.5/1.8/2.5/2.85/3.3/3.6/5.0/ adj.	2/3	1500	–	5000	–	12	-40	125	No	Adjustable output option	TO-220 DPAK D2PAK D2PAK/A
LD1085	3000	1.5/1.8/2.5/2.85/3.3/3.6/5/8/9/12/adj.	2/3	1500	–	–	–	30	-40	125	No	Adjustable output option	TO-220 DPAK D2PAK D2PAK/A
L6932	2000	1.2/1.8/2.5/adj.	1	400	200	–	25	14	-25	125	Yes	Adjustable output option Power-good output option	S0-8
L4940	1500	5/8.5/10/12	4	900	5000	30	–	18	-40	150	No	Reverse polarity protection	TO-220 D2PAK TO-220FP
LD1086	1500	1.5/1.8/2.5/2.85/3.3/3.6/5.0/8.0/9.0/12.0/ adj.	2	1500	–	–	–	30	-40	125	No	Adjustable output option	TO-220 DPAK D2PAK D2PAK/A
L4941	1000	5	4	700	4000	40	–	14	-40	150	No	Reverse polarity protection	TO-220 DPAK D2PAK TO-220FP
LD1117A	1000	1.25/1.8/2.5/2.85/3/3.3/5/ adj.	4	1300	–	–	–	10	0	125	No	Adjustable output option	TO-220 DPAK S0-8 SOT-223
LD1117	800	1.25/1.8/2.5/2.85/3/3.3/5/ adj.	2	1200	–	–	–	15	0	125	No	Adjustable output option	TO-220 DPAK S0-8 SOT-223
L4925	500	5	10	600	190	20	–	28 (40)	-40	125	No	Reset circuit sensing output voltage Programmable reset pulse delay	PENTAWATT PowerSO-20
LF00	500	1.25/1.5/1.8/2.5/2.7/3/3.3/3.5/4/4.5/4.7/5/5.2/5.5/6/8/8.5/9/12	2/4	700	500	0.5	100	18 (40)	-40	125	Yes		PENTAWATT TO-220 TO-220FP PPAK DPAK

KF00	500	1.25/1.5/2.5/ 2.7/3/3.3/3.5/4/ 4.5/4.7/5/ 5.2/ 5.5/6/8/8.5/12	4	700	500	—	100	20	-40	125	Yes		SO-8 DPAK
L4945	500	5	2	750	5000	180	—	35	-40	125	No	Low start up current Reverse voltage protection Overvoltage protection	TO-220
L4947	500	5	4	750	5000	180	—	35	-40	125	No	+/-80 V load dump protection Low start up current Reverse voltage protection Programmable reset pulse delay	PENTAWATT
L387A	500	5	5	800	5000	180	—	26	-40	125	No	Programmable reset pulse delay	PENTAWATT
L2600	500	10	4	1900	20000	45	—	35	-40	125	No	Reverse voltage protection Overvoltage protection	TO-220
L4931	250	1.25/1.5/2.5/ 2.7/3/3.3/3.5/4/ 4.5/4.7/5/5.2/ 5.5/6/8/12	2/4	400	600	4	100	20	-40	125	Yes		TO-220 TO-92 SO-8 PPAK DPAK
L4987	200	3/5/8.7/12	4	700	500	3	180	18 (40)	-40	125	Yes	Dropout control flag	PPAK
LD2985	150	1.8/2.5/2.8/3/3.1/ 3.2/3.3/3.5/3.6/ 3.8/4.0/4.7/5.0	2/3.5	575	80		2	16	-40	125	Yes		SOT23-5L
LK115D00	100	2/3/3.3/4.75/5/5.5	5	200	280	1.5	2	20	-40	125	Yes	Two shutdown pins	SO-8
LD2981	100	1.8/2.5/2.85/3/ 3.2/3.3/3.8/4.85/5	2.5/3.5	375	80	0.8	2	16	-40	125	Yes		SOT23-5L SOT-89
LK112100		1.3 to 5.0 in 100 mV increments/5/5/8	2	240 @ 60mA	175	0.95 @ 60mA	0.1	16	-30	80	Yes	Bypass pin Low output noise (typ. 30 µV)	SOT23-5L
L4949E	100	5	2	500	200	5	—	28 (40)	-40	125	No	Reset circuit sensing output voltage Programmable reset pulse delay Voltage sense comparator Preregulator output	Minidip SO-8 SO20W
LE00	100	1.25/1.5/2.5/2.7/ 3.0/3.3/3.5/4.0/ 4.5/4.7/5.0/5.2/ 5.5/6/8/12	2/4	500	500	1.5	100	18	-40	125	Yes		SO-8 TO-92
LM2931	100	2.5/3.3/5.0/adj.	5	600	—	2.5	1000	26	-40	125	Yes	Load dump protection up to 60V Reverse transient protection up to -50V	TO-92 SO-8 DPAK TO-220
LD2979	50	2.85/3.0/3.2/ 3.3/3.8/5.0	4	600	80	0.5	1	16	-40	125	Yes		TO-92 SOT23-5L
LD2980	50	1.8/2.5/2.85/ 3.0/3.2/3.3/3.8/ 4.85/5.0	2.5	225	65	0.375	1	16	-40	125	Yes		SOT23-5L SOT-89
LD2982	50	3.0/3.3/3.5/ 3.6/4.0/4.7/5.0	2/3.5	225	80	0.375	2	16	-40	125	Yes	Bypass pin	SOT23-5L

Note: 1. Values in bold are over line, load and temperature variation 2. Values in brackets are transient specifications

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