

Linear and Switching Voltage Regulator



Selection guide

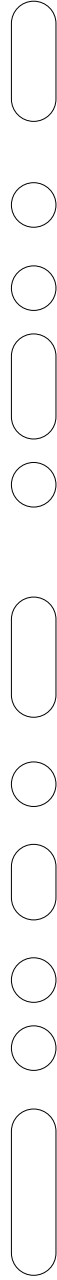


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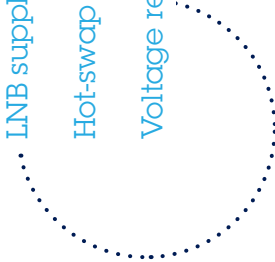




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Linear voltage regulator

STANDARD VOLTAGE REGULATOR

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Dropout voltage (V_o) nom (V)	Output tolerance (%) typ	Quiescent current (I_q) typ (mA)	Operating temperature	
										Min (°C)	Max (°C)
L78	D ² PAK C-LEAD CUT; DPAK; TO-220; TO-220AB; TO-220FP	1.5 A positive voltage regulator	35	5 : 24	1.5	No	2	4	8	-40	125
L78L	S0-8; S0T-89; TO-92	0.1 A positive voltage regulator	30	3.3 : 24	0.1	No	1.7	4	6	-40	125
L78M	DPAK; IPAQ; TO-220; TO-220AB; TO-220FP	0.5 A precision positive voltage regulator	35	5 : 24	0.5	No	2	2	6	-40	125
L78S	TO-220; TO-220AB	2 A positive voltage regulator	35	5 : 24	2	No	2	4	8	0	150
L79	D ² PAK C-LEAD CUT; TO-220; TO-220AB; TO-220FP	1.5 A negative voltage regulator	-35	-15 : -5	1.5	No	1.1	2	3	0	150
L79L	S0-8; S0T-89; TO-92	0.1 A negative voltage regulator	-30	-15 : -5	0.1	No	1.7	4	6	-40	125
LD1084	TO-220	5 A low-drop positive voltage regulator adjustable	30	-	5	Yes	1.3	1	5	-40	125
LD1085	D ² PAK C-LEAD CUT; D ² PAK SMD; TO-220; TO-220FP	3 A low drop positive voltage regulator: adjustable and fixed	30	1.8 : 5	3	Yes	1.3	1	5	-40	125
LD1085C	DPAK	3 A low-drop, adjustable positive voltage regulator	30	-	3	Yes	1.3	2	5	-40	125
LD1086*	D ² PAK C-LEAD CUT; D ² PAK SMD; DPAK; TO-220; TO-220AB; VFDFPN 8 4x4x1.0	1.5 A adjustable and fixed low drop positive voltage regulator	30	1.8 : 12	1.5	Yes	1.3	1	5	-40	125
LD1117	DPAK; S0-8; S0T-223; TO-220; TO-220AB	Adjustable and fixed low drop positive voltage regulator	15	1.2 : 5	0.8	Yes	1.1	1	5	0	125
LD1117A	DPAK; S0T-223; TO-220AB	Low drop fixed and adjustable positive voltage regulator	15	1.2 : 3.3	1	Yes	1.15	2	5	0	125

Note: * automotive grade version available

STANDARD VOLTAGE REGULATOR (CONT'D)

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{out}) nom (V)	Output current (I_{out}) nom (A)	Adjustable regulated output voltage	Dropout voltage (V_p) nom (V)	Output tolerance (%) typ	Quiescent current (I_q) typ (mA)	Operating temperature	
										Min (°C)	Max (°C)
LM217	D ² PAK C-LEAD CUT; TO-220AB	1.2 V to 37 V adjustable voltage regulator	40	-	1.5	Yes	2	4	-	-25	150
LM217L	SO-8; TO-92	Low current 1.2 to 37 V adjustable voltage regulator	40	-	0.1	Yes	2	4	-	-40	125
LM217M	DPAK	Medium current 1.2 to 37 V adjustable voltage regulator	40	-	0.5	Yes	2	4	-	-40	125
LM317	D ² PAK C-LEAD CUT; TO-220AB; TO-220FP	1.2 V to 37 V adjustable voltage regulator	40	-	1.5	Yes	2	4	-	0	125
LM317L	SO-8; TO-92	Low current 1.2 to 37 V adjustable voltage regulator	40	-	0.1	Yes	2	4	-	0	125
LM317M	DPAK	Medium current 1.2 to 37 V adjustable voltage regulator	40	-	0.5	Yes	2	4	-	0	125
LM323	TO-220	Three-terminal 3 A positive voltage regulator	20	5	3	No	2	4	12	0	125
LM337	TO-220	Three-terminal adjustable negative voltage regulator	-40	-	1.5	Yes	2	3	-	0	125
PB137	TO-220	Positive voltage regulator for battery charger	40	13.7	1.5	No	2.1	1	4	0	150

Note: * automotive grade version available

LOW DROPOUT VOLTAGE REGULATOR

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Supply voltage rejection ratio (SVR) (@ 10 kHz) typ (dB)	Dropout voltage (V_D) nom (V)	Output tolerance (%) typ	Quiescent current (I_Q) typ (mA)	Operating temperature	
											Min (°C)	Max (°C)
KFXX	DPAK; SO-8	Very low drop voltage regulator with inhibit	20	2.5 : 8	0.5	No	60	0.4	2	0.5	-40	125
L4931*	DPAK; PPACK; SO-8; TO-92	Very low drop voltage regulator with inhibit	20	2.7 : 12	0.25	No	55	0.4	1	0.6	-40	125
L4940	D ² PAK C-LEAD CUT; TO-220	1.5 A very low drop voltage regulator IC	17	5 : 12	1.5	No	46	0.45	2	5	-40	150
L4941	DPAK; TO-220	Very low drop 1 A regulator	16	5	1	No	44	0.45	4	4	-40	150
L6932	SO-8	High performance 2 A ULDO linear regulator	From 2 V to 14 V	1.8 : 2.5	Up to 2 A	Yes	-	-	1	0.2	-25	125
L6932H1.2	PowerSO-8	High performance 2 A ULDO linear regulator	From 2 V to 14 V	-	Up to 2 A	Yes	-	-	1	0.2	-25	125
LD29080	DPAK; PPACK; SOT-223	800 mA fixed and adjustable output very low drop voltage regulator	13	1.5 : 5	0.8	Yes	65	0.4	1	2	-40	125
LD29150	DPAK; PPACK	1.5 A, very low drop voltage regulator	13	1.8 : 5	1.5	Yes	65	0.4	1	15	-40	125
LD29300	P ² PAK	3 A, very low drop voltage regulator	13	-	3	Yes	60	0.4	1	20	-40	125
LD2979	SOT23-5L	Very low drop voltage regulator with inhibit	16	3 : 3.3	0.05	No	50	0.2	2	0.08	-25	125
LD2980	SOT23-5L	Very low drop voltage regulator with inhibit	16	1.8 : 3.5	0.05	No	60	0.12	0.5	0.08	-40	125
LD2981	SOT-89; SOT23-5L	Very low drop voltage regulator with inhibit	16	3 : 5	0.1	No	60	0.17	0.75	0.08	-40	125
LD2985	SOT23-5L	Very low drop and low noise voltage regulator with inhibit function	16	1.8 : 3.5	0.15	No	65	0.28	2.5	0.08	-40	125
LD39015	SOT23-5L	150 mA low quiescent current low noise voltage regulator	5.5	0.8 : 3.3	0.15	No	62	0.18	2	0.018	-40	125

Note: * automotive grade version available

LOW DROPOUT VOLTAGE REGULATOR (CONT'D)

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Supply voltage rejection ratio (SVR) (@ 10 kHz) typ (dB)	Dropout voltage (V_D) nom (V)	Output tolerance (%) typ	Quiescent current (I_Q) typ (mA)	Operating temperature	
											Min (°C)	Max (°C)
LD39015J	Flip-Chip 4	150 mA low quiescent current low noise voltage regulator	5.5	1.2	0.15	No	67	0.09	2	0.02	-40	125
LD39020	DFN4 1x1; SOT23-5L	200 mA very low quiescent current linear regulator IC	5.5	0.8 : 5	0.2	No	67	0.2	0.5	0.02	-40	125
LD39030SJ	Flip-Chip 4	300 mA low quiescent current soft-start, low noise voltage regulator	5.5	1 : 3.3	0.3	No	62	0.2	2	0.02	-40	125
LD39030	DFN4 1x1	300 mA very low quiescent current linear regulator IC	5.5	1.2 : 3.3	0.3	No	62	0.3	0.5 ; 2	0.02	-40	125
LD39050	DFN6 2x2; DFN6 3x3	500 mA low quiescent current and low noise voltage regulator	5.5	1 : 3.3	0.5	Yes	62	0.2	2	0.02	-40	125
LD39080	DPAK; PPACK	Ultra low drop BiCMOS voltage regulator	6	-	0.8	Yes	40	0.15	1.5	1	-40	125
LD39100	DFN6 3x3	1 A low quiescent current low noise voltage regulator	5.5	1.2 : 3	1	Yes	62	0.2	2	0.02	-40	125
LD39115J	Flip-Chip 4	150 mA low quiescent current low noise voltage regulator	5.5	1.2 : 3.3	0.15	No	67	0.08	2	0.02	-40	125
LD39130S	Flip-Chip 4; DFN6 1.2x.3	300 mA very low quiescent current Linear regulator IC with automatic Green mode	5.5	1 : 4.1	0.3	Yes	65	0.3	1	0.001	-40	125
LD39150	DPAK; PPACK; DFN6 3x3	Ultra low drop BiCMOS voltage regulator	6	1.8 : 3.3	1.5	Yes	40	0.2	1.5	1	-40	125
LD39200	DFN6 3x3; DFN8 4x4	2 A high PSRR ultra low drop linear regulator with reverse current protection	6	3.3	2	Yes	65	0.130	1	0.1	-40	125
LD39300	DPAK; PPACK	Ultra low drop BiCMOS voltage regulator	6	1.2	3	Yes	40	0.2	1.5	1.2	-40	125
LD3985	SOT23-5L	Ultra low drop-low noise BiCMOS voltage regulator	6	1.22 : 4.7	0.15	No	50	0.06	2	0.085	-40	125

LOW DROPOUT VOLTAGE REGULATOR (CONT'D)

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Supply voltage rejection ratio (SVR) (@ 10 kHz) typ (dB)	Dropout voltage (V_D) nom (V)	Output tolerance (%) typ	Quiescent current (I_Q) typ (mA)	Operating temperature	
											Min (°C)	Max (°C)
LD49150	PPACK	1.5 A ultra low dropout voltage regulator	5.5	0.8 : 1.2	1.5	Yes	68	0.12	1.5	4	-25	125
LD49300	PPACK	3 A very low drop for low output voltage regulator	5.5	0.8 : 1.2	3	Yes	68	0.22	1.5	4	-25	125
LD59015	SOT323-5L	150 mA low noise high PSRR linear voltage regulator	5.5	0.8 : 3.3	0.15	No	76	0.15	1.8	0.031	-40	125
LDBL20	ST STAMP™	200 mA very low quiescent current linear regulator IC in (0.47 x 0.47 mm ²) bumpless CSP package	5.5	1.5 : 3.3	0.2	No	80	0.2	1.5	0.02	-40	125
LDCL015	SOT23-5L	150 mA capless ultra low drop linear regulator ICs	5.5	3.3	0.15	Yes	51	0.05	2	0.12	-40	125
LDF	DPAK; PPACK; DFN6 3x3; DFN6 2x2	1 A very low drop voltage regulator IC	16	1.8 : 3.3	1	Yes	55	0.2	1	0.2	-40	125
LDFM	DPAK; PPACK; DFN6 3x3; DFN6 2x2	500 mA very low drop voltage regulator	16	5	0.5	Yes	55	0.125	1	0.2	-40	125
LDK120	SOT23-5L; SOT323-5L; DFN6 1.2x1.3	200 mA low quiescent current very low noise LDO	5.5	0.8 : 3.5	0.2	Yes	55	0.1	2	0.03	-40	125
LDK130*	SOT23-5L; SOT323-5L; DFN6 1.2x1.3	300 mA low quiescent current very low noise LDO	5.5	0.8 : 3.3	0.3	Yes	55	0.2	2	0.03	-40	125
LDK220	SOT-89; SOT23-5L; SOT323-5L; VDFN6 1.2x1.3	200 mA low quiescent current and low noise LDO	13.2	2.5 : 5	0.2	Yes	36	0.1	2	0.055	-40	125
LDK320	SOT89; SOT23-5L	200 mA low quiescent current and high PSRR voltage regulator	1.8	3 : 5	0.2	Yes	48	0.1	0.5 ; 2	0.06	-40	125

Note: * automotive grade version available

LOW DROPOUT VOLTAGE REGULATOR (CONT'D)

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Supply voltage rejection ratio (SVR) (@ 10 kHz) typ (dB)	Dropout voltage (V_D) nom (V)	Output tolerance (%) typ	Quiescent current (I_Q) typ (mA)	Operating temperature	
											Min (°C)	Max (°C)
LDK715	SOT23-5L; DFN8 3x3	High input voltage 85 mA LDO linear regulator	24	3 : 5	0.85	No	53	0.5	1	0.005	-40	125
LDL112	PPACK; SO-8; DFN6 2x2; DFN6 3x3	1.2 A low quiescent current LDO with reverse current protection	5.5	0.8 : 5	1.2	Yes	46	0.3	2	0.035	-40	125
LDL212	DFN6 3x3; DFN6 2x2; SO-8	1.2A Low Drop Linear Regulator IC	18	1.2 : 5	1.2	Yes	60	0.35	2	0.25	-40	125
LDLN015	DFN6 2x2	150 mA - ultra low noise - high PSRR linear voltage regulator IC	5.5	1 : 3.3	0.15	No	89	0.086	1	0.035	-40	125
LDLN025	DFN4 1x1; Flip-Chip 4; SOT23-5L	250 mA ultra-low noise LDO	5.5	1.8 : 3.5	0.25	No	75	0.12	2	0.012	-40	125
LDS3985*	SOT23-5L; DFN6 3x3	Very low drop and low noise BiCMOS 300 mA voltage regulator	6	1.5 : 5	0.3	No	50	0.15	2	0.085	-40	125
LEXX	SO-8; TO-92	Very low-dropout voltage regulator with inhibit function	20	3 : 8	0.1	No	60	0.2	1 ; 2	0.5	-40	125
LFXX*	DPAK; PPACK; TO-220; TO-220AB; TO-220FP	Very low drop voltage regulator with inhibit	16	1.5 : 12	0.5	No	65	0.45	1	0.5	-40	125
LK112	SOT23-5L	Low noise and low drop voltage regulator with shutdown function	14	1.5 : 8	0.15	No	55	0.29	2	0.175	-40	125
LK112S	SOT23-5L	Low noise and low drop voltage regulator with shutdown function	14	1.8 : 5	0.2	No	55	0.35	2	0.175	-40	125
LM2931*	DPAK; SO-8; TO-92	Very low drop voltage regulator with inhibit function	40	3.3 : 5	0.1	Yes	62	0.25	5	2.5	-40	125
ST1L05	DFN6 3x3; DFN8 4x4	Very low quiescent BiCMOS voltage regulator	5.5	2.5 : 3.3	1.3	Yes	62	0.3	2	0.35	0	125
ST1L08	DFN8 2x3	800 mA Ultra low drop, high PSRR voltage regulator	5.5	0.5 - 3.3	0.8	Yes	62	70	2	0.035	-40	125
ST715	SOT23-5L; SOT323-5L; DFN8 3x3	High input voltage - 85 mA LDO linear regulator	24	2.5 : 3.3	0.85	Yes	53	0.5	4	0.0038	-40	125

Note: * automotive grade version available

LOW DROPOUT VOLTAGE REGULATOR (CONT'D)

Part number	Package	General description	DC input voltage max (V)	Output voltage (V_{OUT}) nom (V)	Output current (I_{OUT}) nom (A)	Adjustable regulated output voltage	Supply voltage rejection ratio (SVR) (@ 10 kHz) typ (dB)	Dropout voltage (V_D) nom (V)	Output tolerance (%) typ	Quiescent current (I_Q) typ (mA)	Operating temperature	
											Min (°C)	Max (°C)
STLQ015	SOT23-5L	150 mA - ultra low quiescent current linear voltage regulator	5.5	1.2 : 3.3	0.15	No	30	0.112	2	0.001	-40	125
STLQ020	Flip-Chip 4; SOT323-5L; DFN6 2x2	200mA ultra-low quiescent current LDO	5.5	1.8 : 3.3	0.2	Yes	50	0.16	2	0.0003	-40	125
STLQ50	SOT323-5L	50 mA, 3 μ A Supply current low drop linear regulator	12	1.8 : 5	0.05	Yes	10	0.2	2	0.003	-40	125

DC-DC switching regulator

BOOST REGULATOR

Part number	General description	Package	Input voltage (V_{IN}) max (V)	Regulated output voltage		Output current- Max (I_{OUT_MAX}) (A)	Quiescent current (I_Q) typ (mA)	Synchronous rectification	Switching frequency typ (kHz)
				Min (V)	Max (V)				
L6920	1 V high efficiency synchronous step up converter	TSSOP8	5.5	2	5.2	1.2	0.01	Yes	300
L6920DB	Synchronous rectifier step up converter	MSOP/TSSOP 8	5.5	1.8	5.2	0.9	0.01	Yes	300
L6920DC	Synchronous rectifier step up converter	MSOP/TSSOP 8	5.5	1.8	5.5	0.9	0.01	Yes	300
ST662AC	DC-DC converter from 5 V to 12 V, 0.03 A for flash memory programming supply	SO-8	5.5	11.4	12.6	0.03	0.1	No	400
ST8R00	Micropower step up DC-DC converter	VDFPN 8 4x4x1.0	6	6	12	1	0.8	Yes	1200

Note: * automotive grade version available

BUCK REGULATOR

Part Number	General description	Package	Input voltage (V _{IN})		Regulated output voltage		Output current-Max (I _{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I _Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T _J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
A5970AD	Up to 1 A step down switching regulator for automotive applications	S0-8	4	36	1.235	36	1	No	2.5	500	Yes	No	-40	125
A5970D	Up to 1 A step down switching regulator for automotive applications	S0-8	4	36	1.235	36	1	No	2.5	250	Yes	No	-40	125
A5972D	Up to 1.5 A step down switching regulator for automotive applications	S0-8	4	36	1.235	36	1.5	No	2.5	250	No	No	-40	125
A5973AD	Up to 1.5 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	1.5	No	2.5	500	Yes	No	-40	125
A5973D	Up to 2 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	2	No	2.5	250	Yes	No	-40	125
A5974AD	Up to 2 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	2	No	2.5	500	Yes	No	-40	125
A5974D	Up to 2.5 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	2.5	No	2.5	250	Yes	No	-40	125
A5975AD	Up to 2.5 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	2.5	No	2.5	500	Yes	No	-40	125
A5975D	Up to 3 A step down switching regulator for automotive applications	PowerS0-8	4	36	1.235	36	3	No	2.5	250	Yes	No	-40	125
A6902D	Up to 1 A switching step down regulator with adjustable current limit for automotive applications	S0-8	8	36	1.235	36	1	No	2.5	250	No	No	-40	125
A6984	36 V 400mA synchronous step-down switching regulator for automotive applications	VDFPM10 4x4	4.5	36	0.9	28	0.4	Yes	0.1	250	Yes	Yes	-40	150
A6985F	38 V 1.5A synchronous step-down switching regulator with 30uA quiescent current for automotive applications	HTSSOP16	4	38	0.85	38	0.5	Yes	0.03	250-2000	Yes	Yes	-40	150

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{IN})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
A6986	38 V 2 A synchronous step-down switching regulator with 30 uA quiescent current for automotive applications	HTSSOP16	4	38	0.85	38	2	Yes	0.03	250-2000	Yes	Yes	-40	150
A6986F	38 V 1.5 A synchronous step-down switching regulator with 30 uA quiescent current for automotive applications	HTSSOP16	4	38	0.85	38	1.5	Yes	0.03	250-2000	Yes	Yes	-40	150
A7985A	2 A step-down switching regulator for automotive applications	PowerSO-8	4.5	38	0.6	38	2	No	2.4	250-1000	Yes	Yes	-40	125
A7986A	3 A step-down switching regulator for automotive applications	PowerSO-8	4.5	38	0.6	38	3	No	2.4	250-1000	Yes	Yes	-40	125
AST1S31	3 A DC step-down switching regulator for automotive applications	VFDPN 8 3x3x1.0	2.8	4	0.8	4	3	Yes	0.63	1200-1900	Yes	Yes	-40	150
AST1S31HF	Up to 4 V, 3 A step-down 2.3 MHz switching regulator for automotive applications	VFDPN 8 3x3x1.0	2.8	4	0.8	4	3	Yes	0.63	2300	Yes	Yes	-40	150
B5973D	Up to 2 A step down switching regulator for automotive applications	PowerSO-8	4	36	1.235	36	2	No	2.5	250	Yes	No	-40	125
L296	High current switching regulator	MW 15L	9	46	5.1	40	4	No	30	100-200	Yes	Yes	-40	125
L4960	2.5V switching regulator	HW 7LDS SPLIT V	9	46	5.1	40	2.5	No			Yes	Yes		
L4962	1.5 A switching regulator	HW 7LDS SPLIT V; PDIP 16	9	46	5.1	40	1.5	No	15	100	Yes	Yes	-40	125
L4963	1.5 A switching regulator	PDIP 18; SO-20	9	46	5.1	36	1.5	No	9	100-300	Yes	Yes	-40	125
L4964	High current switching regulator	MW 15L	9	46	5.1	38	4	No	30	120	Yes	Yes	-40	125
L4970A	10 A switching regulator	MW 15L	15	50	5.1	40	10	No	13	100-500	No	No	-40	125

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{in})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
L4971	1.5 A switching regulator	DIP-8; SO-16W	8	55	3.3	50	1.5	No	2.7	100-300	Yes	Yes	-40	125
L4972	2 A switching regulator	PDIP 20; SO-20	15	50	5.1	40	2	No	13	100-200	No	No	-40	125
L4973	3.5 A switching regulator	PDIP 18; SO-20	8	55	0.5	50	3.5	No	2.7	100-300	Yes	Yes	-40	125
L4974A	3.5 A switching regulator	PDIP 20	15	50	5.1	40	4	No	13	100	No	No	-40	125
L4975A	5 A switching regulator	MW 15L	15	50	5.1	40	5	No	13	200	No	No	-40	125
L4976	1 A step down switching regulator	DIP-8; SO-16W	8	55	0.5	50	1	No	2.7	100-300	No	No	-40	125
L4977A	7 A switching regulator	MW 15L	15	50	5.1	40	7	No	13	100-500	No	No	-40	125
L4978	2 A step down switching regulator	DIP-8; SO-16W	8	55	3.3	50	2	No	2.7	100-300	Yes	Yes	-40	125
L5970AD	Up to 1 A step down switching regulator	SO-8	4.4	36	1.235	36	1	No	2.5	500	Yes	No	-40	125
L5970D	Up to 1 A step down switching regulator	SO-8	4.4	36	1.235	36	1	No	2.5	250	Yes	No	-40	125
L5972D	Up to 1.5 A step down switching regulator	SO-8	4.4	36	1.235	36	1.5	No	2.5	250	No	No	-40	125
L5973AD	Up to 1.5 A step down switching regulator	PowerSO-8	4	36	1.235	36	1.5	No	2.5	500	Yes	No	-40	125
L5973D	Up to 2 A step down switching regulator	PowerSO-8	4	36	1.235	36	2	No	2.5	250	Yes	No	-40	125
L5980	Up to 0.7 A step down switching regulator	VDFPN 8 3x3x1.0	2.9	18	0.6	18	0.7	Yes	2.4	250-1000	Yes	Yes	-40	125
L5981	Up to 1 A step down switching regulator	VDFPN 8 3x3x1.0	2.9	18	0.6	18	1	No	2.4	250-1000	Yes	Yes	-40	125
L5983	Up to 1.5 A step down switching regulator	VDFPN 8 3x3x1.0	2.9	18	0.6	18	1.5	No	2.4	250-1000	Yes	Yes	-40	125
L5985	Up to 2 A step down switching regulator	VDFPN 8 3x3x1.0	2.9	18	0.6	18	2	No	2.4	250-1000	Yes	Yes	-40	125

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{IN})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
L5986	2.5 A step-down switching regulator	PowerSO-8; VDFPN 8 3x3x1.0	2.9	18	0.6	18	2.5	No	2.4	250-1000	Yes	Yes	-40	125
L5987	3 A step-down switching regulator	PowerSO-8; VDFPN 8 3x3x1.0	2.9	18	0.6	18	3	No	2	250-1000	Yes	Yes	-40	125
L5988D	4 A continuous (more than 5 A pulsed) step-down switching regulator with synchronous rectification	HTSSOP16	2.9	18	0.6	28	4	Yes	3	100-1000	Yes	Yes	-40	125
L6902	1 A switching regulator with adjustable current limit	SO-8	8	36	1.235	36	1	No	2.5	250	No	No	-40	125
L6926	High efficiency synchronous step-down regulator	MSOP/TSSOP 8; VDFPN 8 3x3x1.0	2	5.5	0.6	5.5	0.8	Yes	0.3	550-650	Yes	Yes	-40	125
L6928	High efficiency monolithic synchronous step down regulator	MSOP/TSSOP 8; VDFPN 8 3x3x1.0	2	5.5	0.6	5.5	0.8	Yes	0.23	1300-1500	Yes	Yes	-40	125
L6984	36 V 400 mA synchronous step-down switching regulator	VDFPM 10 3x3 VDFPM 10 4x4	4.5	36	0.9	28	0.4	Yes	0.1	250-600	Yes	Yes	-40	125
L6985F	38 V 0.5 A synchronous step-down switching regulator with 30 uA quiescent current	HTSSOP16	4	38	0.85	38	0.5	Yes	0.03	250-2000	Yes	Yes	-40	150
L6986	38 V 2 A synchronous step-down switching regulator with 30 uA quiescent current	HTSSOP16	4	38	0.85	38	2	Yes	0.03	250-2000	Yes	Yes	-40	125
L6986F	38 V 1.5 A synchronous step-down switching regulator with 30 uA quiescent current	HTSSOP16	4	38	0.85	38	1.5	Yes	0.03	250-2000	Yes	Yes	-40	150

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{IN})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
L7980	2 A step-down switching regulator	PowerSO-8; VDFPN 8 3x3x1.0	4.5	28	0.6	28	2	No	2.4	250-1000	Yes	Yes	-40	125
L7981	3 A step-down switching regulator	PowerSO-8; VDFPN 8 3x3x1.0	4.5	28	0.6	28	3	No	2.4	250-1000	Yes	Yes	-40	125
L7985	2 A step-down switching regulator	PowerSO-8; VDFPN 10 3x3x1.0	4.5	38	0.6	38	2	No	2.4	250-1000	Yes	Yes	-40	125
L7986	3 A step-down switching regulator	PowerSO-8; VDFPN 10 3x3x1.0	4.5	38	0.6	38	3	No	2.4	250-1000	Yes	Yes	-40	125
L7986TA	3 A step-down switching regulator	PowerSO-8	4.5	38	0.6	38	3	No	2.4	250-1000	Yes	Yes	-40	125
L7987	61 V 3 A asynchronous step-down switching regulator with adjustable current limitation	HTSSOP16	4.5	61	0.8	61	3	No	1	250-1500	Yes	Yes	-40	125
L7987L	61 V 2 A asynchronous step-down switching regulator with adjustable current limitation	HTSSOP16	4.5	61	0.8	61	2	No	1	250-1500	Yes	Yes	-40	125
PM8903A	3 A step-down monolithic switching regulator	VFQFPN 16 3x3x1.0	2.8	6	0.6	3.6	3	Yes	5	800-1100	Yes	Fixed, 0.79 ms typ	-25	125
PM8908	Monolithic buck converter for DDR memory termination	VFQFPN 20L 3.5x4.0x0.95	1	6	0.5	2	6	Yes	10	800-1100	Yes	Yes	-25	125
ST1S03	1.5 A, 1.5 MHz adjustable, step-down switching regulator	VDFPN 6 3x3	2.7	16	0.8	5	1.5	No	2.5	1500	Yes	Yes	-25	125

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{in})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
ST1S06	Synchronous rectification with inhibit, 1.5 A, 1.5 MHz fixed and adjustable, step-down switching regulator	VFDPFN 6 3x3	2.7	5.5	0.8	5	1.5	Yes	1.5	1200-1500	Yes	yes	-40	150
ST1S09	Synchronous rectification with inhibit, 2 A, 1.5 MHz adjustable, step-down switching regulator	VFDPFN 6 3x3	4.5	5.5	0.8	5	2	Yes	2.5	1200-1500	Yes	Yes	-40	150
ST1S10	Monolithic synchronous step-down regulator	PowerSO-8; VFDPFN 8 4x4x1.0	2.7	18	0.8	16	3	Yes	1.5	900	Yes	Yes	-40	125
ST1S12	Synchronous rectification with inhibit, 0.7 A, 1.7 MHz fixed and adjustable	TSOT23-5L	2.5	5.5	0.6	5	0.7	Yes	0.6	1120-1800	Yes	Yes	-40	150
ST1S14	Up to 3 A step down switching regulator	PowerSO-8	5.5	48	0.8	48	3	No	2	850	Yes	Yes	-40	150
ST1S15	500 mA, 6 MHz synchronous step-down converter	Flip-Chip 400u; VFDPFN 6 2x2x1.0	2.3	5.5	1.82	2.8	0.5	Yes	0.045	5400-6600	Yes	Yes	-40	150
ST1S30	3 A, 1.5 MHz PWM step-down switching regulator with synchronous rectification	VFDPFN 8 4x4x1.0	2.7	6	0.8	5	3	Yes	2.5	1500	Yes	Yes	-40	150
ST1S31	3 A DC step-down switching regulator	SO-8; VFDPFN 8 3x3x1.0	2.8	5.5	0.8	5.5	3	Yes	0.63	1200-1900	Yes	Yes	-40	150
ST1S32	4 A DC step-down switching regulator	VFDPFN 8 4x4x1.0	2.8	5.5	0.8	5.5	4	Yes	0.63	1200-1900	Yes	Yes	-40	150
ST1S40	3 A DC step-down switching regulator	PowerSO-8; SO-8; VFDPFN 8 4x4x1.0	4	18	0.8	18	3	Yes	2.5	850	Yes	Yes	-40	150
ST1S41	4 A step-down switching regulator	PowerSO-8; VFDPFN 8 4x4x1.0	4	18	0.8	18	4	Yes	1.5	850	Yes	Yes	-40	150

BUCK REGULATOR (CONT'D)

Part Number	General description	Package	Input voltage (V_{in})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Synchronous rectification	Quiescent current (I_Q) typ (mA)	Regulator switching frequency (kHz)	Inhibit pin	Soft-start	Junction temperature (T_J)	
			Min (V)	Max (V)	Min (V)	Max (V)							Min (°C)	Max (°C)
ST1S50	4 A Monolithic synchronous step-down converter with high efficiency at light load	VDFPN 10 3x3x1.0	4	18	0.8	16	4	Yes	0.38	400-600	Yes	Yes	-40	150
ST2S06	Dual synchronous rectification with reset or inhibit, 0.5 A, 1.5 MHz adjustable step-down switching regulator	VFQFPN 12 4x4x1.0	4.5	5.5	0.8	5.5	0.5	Yes	1.2	1200-1800	Yes	Yes	-40	150
ST2S08B	Dual synchronous rectification, 1.5 A, 1.5 MHz adjustable step-down switching regulator	VFQFPN 12 4x4x1.0	3	5.5	0.8	4.675	1.5	Yes	1.5	1200-1800	Yes	Yes	-40	150
ST763AC	3.3 V step down current mode PWM DC-DC converter	S0-8	3.3	11	3.135	3.465	0.5	No	0.6	200	Yes	No	-40	150

BUCK-BOOST REGULATOR

Part number	General description	Package	Input voltage (V_{in})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) (A)	Quiescent current (I_Q) typ (mA)	Synchronous rectification	Switching frequency typ (kHz)
			Min (V)	Max (V)	Min (V)	Max (V)				
MC34063	DC-DC converter control circuits	DIP-8; S0-8	3	40	1.25	38	1.5	2.5	No	100
STBB1-AXX	1 A, high efficiency single inductor dual mode buck-boost DC-DC converter	VDFPN 10 3x3x1.0	2	5.5	1.2	5.5	1	0.6	Yes	1500
STBB2	800 mA 2.5 MHz, high efficiency dual mode buck-boost DC-DC converter	Flip-Chip 20	2.3	5.5	1.2	4.5	0.8	0.05	Yes	2500
STBB3J	2 A, 2 MHz, high efficiency dual mode buck-boost DC-DC converter	Flip-Chip 20	1.8	5.5	1.8	5.5	2	0.05	Yes	2000
STBB3JCC	2 A, high efficiency single inductor buck-boost DC-DC converter and High Brightness White LED Driver	Flip-Chip 20	1.8	5.5	0.1	5.5	2	0.05	Yes	2000

MULTI-OUTPUT REGULATOR

Part number	General description	Package	Number of output nom	Input voltage (V _{in})		Output current-Max (I _{OUT_MAX}) (A)	Regulated output voltage		Regulator switching frequency		Efficiency nom (%)
				Min (V)	Max (V)		Min (V)	Max (V)	Min (kHz)	Max (kHz)	
PM6641	Monolithic VR for Chipset and DDR2/3 Supply for Ultra-Mobile PC (UMPC) Applications	VFQFPN 48 7x7x1.0	4	2.7	5.5	2.5	0.8	2.5	500	1000	92
PM6680	2 adjustable output power controller for notebook PC chipset power	VFQFPN 32 5x5x1.0	3	6	28	10	0.9	5	200	500	90
PM6680A	Dual synchronous step down controller with adjustable output voltages plus LDO	VFQFPN 32 5x5x1.0	3	6	36	10	0.9	5	200	500	95
PM6686	Dual step-down controller with adjustable voltages, adjustable LDO and auxiliary charge pump controller for notebook	VFQFPN 32 5x5x1.0	3	5.5	28	10	0.7	5.5	200	500	95
STODD01	Monolithic power management for high definition ODD with true shut-down, reset, and programmable step-up voltage	VFQFPN 16 4x4x1.0	1	4	6	0.8	6.5	14	750	1500	90

SINGLE-PHASE CONTROLLERS

Part number	General description	Package	Recommended input voltage (V_{IN})		Supply voltage (V_{DD})		Output voltage (V_{OUT}) min (V)	Peak output current (I_{Opeak}) max (A)	Recommended oscillation frequency (f_{OSC}) max (kHz)	Oscillator switching frequency (Internal) min (kHz)
			Min (V)	Max (V)	Min (V)	Max (V)				
A6727	Single-phase PWM controller for automotive applications	S0-8	1.5	19	4.1	13.2	0.8	30	300	300
L6725	Voltage mode PWM controller with bootstrap anti-discharging system	S0-16	1.8	18	4.5	18	0.6	30	500	500
L6726A	Single-phase PWM controller	S0-8	1.5	19	4.1	13.2	0.8	30	270	270
L6738	Single-phase PWM controller with light-load efficiency optimization	VFQFPN 16 3x3x1.0	1.5	19	4.5	13.2	0.8	30	600	600
L6738A	Single-phase PWM controller with light-load efficiency optimization	VFQFPN 16 3x3x1.0	1.5	19	4.5	13.2	0.8	30	600	600
L6739	Single-phase PWM controller with light-load efficiency optimization	VFQFPN 16 3x3x1.0	1.5	19	4.1	13.2	0.8	30	600	200
PM6644	350 mA adjustable step-down regulator	VDFPN 10 3x3x1.0	4.5	25	3.4	4.2	0.9	0.35	600	200
TSM108	Step-down controller with constant voltage/current	S0-14	-	-	8	60	-	-	-	-

Battery management ICs

BATTERY MANAGEMENT ICs

Part number	Charge current (A)	Charge voltage (V)	Input voltage (V)	V_{INAMR} (V)	I_{PRE} (mA) $I_{TRICKLE} = 45$	Package	Other functions
STBCFG01	12	3.52 to 4.78	3.6 to 6.3 (5 typ)	20	450 or 100 $I_{TRICKLE} = 45$	CSP 25 2.3 x 2.2 mm ²	500 mA OTG 4.85 V LDO
L6924D/U	Prog up to 1	4.1 or 4.2	2.5 to 12	16	Prog by R	VFQFPN 16 3 x 3 x 1.0	NTC, charge timer, charge status output
STC4054	Prog up to 0.8	4.2	4.25 to 6.5	10	$I_{CHG} / 10$	TSOT23-5L	Charge status output
STNS01	15 to 200 mA	4.2	4.55 to 5.4	16	$I_{CHG} / 5$	VFDFPN 12 3 x 3 x 0.75	3.1 V LDO, power path, LDO, charge status output, NTC
STBC02	1 to 450 mA	4.2 to 4.45 V	4.55 to 5.4 V	16	1 to 450 mA	Flip-chip30	3.0, 3.1, 3.3 V LDO, power-path, NTC, smart-reset, watchdog, S-wire, SPDT switches
STBC03	1 to 650 mA	4.2 to 4.45 V	4.55 to 5.4 V	16	1 to 650 mA	Flip-chip30	3 V LDO, power path, NTC, SPDT switches

WIRELESS CHARGER

Part Number	Description	Function	Pout (Typ) (W)	Compliance	Vin (Typ) (V)	Vrect (reg) (V)	Iout (Max) (A)	Vout (Max) (V)	Operating Temperature Range (C)	Package Group	Lead Count
STWLC03	5W Dual mode Qi/PMA Wireless Power Receiver	Receiver	5	WPC 1.1 & PMA	-	Dynamic	1	7	0 to 85	WLCSP	77
STWLC04	Qi based 1W Wireless Power Receiver	Receiver	1	Qi based	-	Dynamic	0.2	5	0 to 85	WLCSP	77
STWLC33	Multi Mode Qi/Airfuel Inductive Wireless Power Receiver up to 15W output power with Transmitter Function	Receiver with Transmitter	15	WPC 1.2.2 & Airfuel Inductive	5	Dynamic	1.5	12.5	0 to 85	WLCSP	52
STWBC	Digital controller for wireless battery charger transmitters supporting Qi A11 topology	Transmitter	5	WPC 1.1	5				-40 to 105	VFQFPN 5x5x1.0	32
STWBC-WA	Digital controller for wireless battery charger transmitters for wearable and smart watches applications	Transmitter	1	Qi based	5				-40 to 105	VFQFPN 5x5x1.0	32
STWBC-EP	Digital controller for wireless battery charger transmitters for extended power applications	Transmitter	15	WPC 1.2	5				-40 to 105	VFQFPN 5x5x1.0	32

BOOST CURRENT REGULATOR FOR LED

Part number	General description	Package	Input voltage (V_{in})		Output current (I_{OUT}) max (mA)	Output current accuracy typ (%)	Output channels max	Switching frequency typ (kHz)	Number of LEDs max	LED configuration	Other features
			Min (V)	Max (V)							
ALED6001	Automotive grade PWM-dimmable single channel LED driver with integrated boost controller	HTSSOP16	5.5	36	-	4	1	1000	18	Serial	Boost, buck-boost and Sepic topologies, analog and PWM dimming, high side LED current sensing, LED overcurrent protection
ALED7707	6-row 85 mA LEDs driver with boost regulator for LCD panel backlights	VFQFPN 24 5x5x1.0	4.5	36	510	3	6	660	60	Serial	External synch
LED6001	PWM-dimmable single channel LED driver with integrated boost controller	HTSSOP16	5.5	36	-	4	1	1000	18	Serial	Boost, buck-boost and Sepic topologies, analog and PWM dimming, high side LED current sensing, LED overcurrent protection
LED7706	LED driver with boost regulator, 6-rows 30 mA, for LCD panels backlight	QFN-24L	4.5	36	180	2	6	660	60	Serial	External synch
LED7707	LED driver with boost regulator, 6-rows 85 mA, for LCD panels backlight	QFN-24L	4.5	36	510	2	6	660	60	Serial	External synch
LED7708	16 channels x 85 mA LED driver with boost controller and 4-wire serial interface	VFQFPN 48 7x7x1.0	3.6	36	1360	2	16	610	160	Serial	External synch
STLA02	White LED driver for display backlight	VFDFPN 6 2x2x0.75	2.5	18	20	5	1	2000	6	Serial	Overvoltage protection
STLD40D	White LED power supply for large display backlight	VFDFPN 8 3x3x1.0	3	5.5	20	5	1	10	10	Serial	Enable pin with PWM dimming control
STLD41	White LED driver for mid-size LCD display backlight	VFDFPN 8 3x3x1.0	3	21	120	10	4	1400	40	Serial	Max 40 LED (4 strings of 10 LED)
STP4CMP	Low voltage 4-channel constant current LED driver with charge pump	VFQFPN 20 3.2x1.8x0.5	2.7	5.5	120	7	4	-	4	Parallel	Integrated charge pump, individual constant current control

BUCK CURRENT REGULATOR FOR LED

Part number	General description	Package	Input voltage (V _{IN})		Output current- Max (I _{OUT,MAX}) (A)	Feedback voltage accuracy (%) typ	Feedback voltage (V) nom	Synchronous rectification	Dimming control	Inhibit pin	Regulated output voltage max (V)	Oscillator Switching frequency (Internal)		Soft-start	Other features	Operating junction temperature (T _J)	
			Min (V)	Max (V)								Min (kHz)	Max (kHz)			Min (°C)	Max (°C)
			LED2000	3 A monolithic step-down current source with synchronous rectification	SO-8; VFDFPN 8 4x4x1.0							3	18			3	7
LED2001	4 A monolithic step-down current source with synchronous rectification	PowerSO-8; VFDFPN 8 4x4x1.0	3	18	4	7	0.1	Yes	PWM	No	18	850	850	Yes	Peak current mode architecture, Embedded compensation network, Internal current limiting, Ceramic output capacitor compliant, Thermal shutdown	-40	125
ST1CC40	3 A, 850 KHz, monolithic synchronous step-down constant current LED driver	SO-8; VFDFPN 8 4x4x1.0	3	18	3	7	0.1	Yes	None	Yes	18	850	850	Yes	Peak current mode architecture, Embedded compensation network, Internal current limiting, Ceramic output capacitor compliant, Thermal shutdown, Inhibit pin	-40	150
LED5000	3 A monolithic step-down current source with dimming capability	PowerSO-8	5.5	48	3	3	0.2	No	PWM	Yes	Yes	850	850	Yes	Alternative topology supported	-40	150
LED6000	3 A, 61 V monolithic current source with dimming capability	HTSSOP16	4.5	61	3	3	0.2	No	PWM	Yes	Yes	250	15000	Yes	SYNCH; ADJ. ILIM; ADJ. FSW	-40	150

LINEAR CURRENT REGULATOR FOR LED

Part number	General description	Input voltage (V_{in})		Output current (I_{out}) max (mA)	Output current accuracy typ (%)	Number of LEDs max	LED configuration	Package	Other features
		Min (V)	Max (V)						
STCS05	0.5 A max constant current LED driver	4.5	40	500	10	10	Serial	SO-8	-
STCS05A	0.5 A max constant current LED driver	4.5	40	500	10	10	Serial	SO-8	Slop control with external cap
STCS1	1.5 A max constant current LED driver	4.5	40	1500	10	10	Serial	PowerSO-8; VDFPN 8 3x3x1.0	-
STCS1A	1.5 A max constant current LED driver	4.5	40	1500	10	10	Serial	PowerSO-8; VDFPN 8 3x3x1.0	Slop control with external cap
STCS2	2 A max constant current LED driver	4.5	40	2000	10	10	Serial	PowerSO-10	-
STCS2A	2 A max constant current LED driver	4.5	40	2000	10	10	Serial	PowerSO-10	Slop control with external cap

LED ARRAY DRIVERS

Part number	General description	Package	Input voltage (V_{in})		Output channels max	Other features	Output current accuracy typ (%)
			Min (V)	Max (V)			
ALED1642GW	16-channels LED driver with error detection, current gain control and 12/16 bit-PWM brightness control for automotive applications	HTSSOP24	3	5.5	16	Error detection, gain control and PWM brightness control	3
LED1642GW	16-channels LED driver with error detection, current gain control and 12/16 bit PWM brightness control	HTSSOP24; QFN-24L; QSOP24; TSSOP 24	3	5.5	16	Error detection, gain control and PWM brightness control	3
LED2472G	24-Channels LED driver with LED error detection and gain control	TQFP 48 7x7x1.0; VFQFPN 40 5x5x1.0	3	5.5	24	Error detection and gain control	3
STAP08DP05	Low voltage 8-bit constant current LED sink driver with output error detection for automotive applications	HTSSOP16	3	5.5	8	Full error output detection, TSD, UVLO	4
STAP16DPPS05	Low voltage 16-bit constant current LED sink driver with output error detection and auto power-saving for automotive applications	HTSSOP24	3	5.5	16	Full error output detection, auto power saving, TSD, UVLO	4

LED ARRAY DRIVERS (CONT'D)

Part number	General description	Package	Input voltage (V _{in})		Output channels max	Other features	Output current accuracy typ (%)
			Min (V)	Max (V)			
STAP16DPS05	Low voltage 16-bit constant current LED sink driver with output error detection and auto power-saving for automotive applications	HTSSOP24	3	5.5	16	Full error output detection, auto power saving, TSD, UVLO	4
STP04CM05	4-bit constant current power-LED sink driver	HTSSOP16; SO-14	3	5.5	4	High current power LED drive, TSD, UVLO, POR	1
STP08CP05	Low-voltage, low current power 8-bit shift register	HTSSOP16; SO-16; TSSOP 16	3	5.5	8	Constant current control, TSD, UVLO	2.75
STP08DP05	Low-voltage 8-bit constant current LED sink with full outputs error detection	HTSSOP16; SO-16; TSSOP 16	3	5.5	8	Full error output detection, TSD, UVLO	3
STP16CP05	Low-voltage 16-bit constant current LED sink driver	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, TSD, UVLO	3
STP16CPC05	Low voltage 16-bit constant current LED sink driver	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, TSD, UVLO	3
STP16CPC26	Low voltage 16-bit constant current LED sink driver	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, TSD, UVLO, balanced TON/TOFF, suitability to very noisy applications	3
STP16CPP05	Low-voltage 16-bit constant current LED sink driver	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, TSD, UVLO	1.2
STP16CPPS05	Low-voltage 16-bit constant current LED sink driver with auto power-saving	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, auto power saving, TSD, UVLO	1.2
STP16CPS05	Low-voltage 16-bit constant current LED sink driver with auto-power saving	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Full error output detection, constant current control, TSD, power saving	3
STP16DP05	Low-voltage 16-bit constant current LED sink driver with outputs error detection	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Full error output detection, TSD, UVLO	3

LED ARRAY DRIVERS (CONT'D)

Part number	General description	Package	Input voltage (V_{in})		Output channels max	Other features	Output current accuracy typ (%)
			Min (V)	Max (V)			
STP16DPP05	Low voltage 16-bit constant current LED sink driver with output error detection	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, full outputs error detection, TSD, UVLO	1.2
STP16DPPS05	Low-voltage 16-bit constant current LED sink driver with outputs error detection and auto-power saving	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, full outputs error detection, auto power saving, TSD, UVLO	1.2
STP16DPS05	Low voltage 16-bit constant current LED sink driver with outputs error detection	HTSSOP24; QSOP24; SO-24; TSSOP 24	3	5.5	16	Constant current control, full outputs error detection, auto power saving, TSD, UVLO	3
STP24DP05	24-bit constant current LED sink driver with output error detection	TQFP 48 7x7x1.0	3	5.5	24	Full error output detection, TSD, UVLO	3
STPIC6C595	Power logic 8-bit shift register	SO-16; TSSOP 16	4.5	5.5	8	Low $R_{DS(ON)}$, 8-bit shift-register with 100 mA DMOS outputs	-
STPIC6D595	Power logic 8-bit shift register	SO-16; TSSOP 16	4.5	5.5	8	Low $R_{DS(ON)}$, 8-bit shift-register with 100 mA DMOS outputs	-

LED MATRIX DRIVERS

Part number	General description	Package	Input voltage (V_{in})		Output channels max	Output current-Max (I_{OUT_MAX}) nom (A)	Output current accuracy typ (%)	Switching frequency typ (kHz)
			Min (V)	Max (V)				
LED7706	LED driver with boost regulator, 6-rows 30 mA, for LCD panels backlight	QFN-24L	4.5	36	6	30	2	660
LED7707	LED driver with boost regulator, 6-rows 85 mA, for LCD panels backlight	QFN-24L	4.5	36	6	85	2	660
LED7708	16 channels x 85 mA LED driver with boost controller and 4-wire serial interface	VFQFPN 48 7x7x1.0	3.6	36	16	85	2	610
STLED524	Intelligent matrix LED display driver	CSPS0,4 26-100	2.7	5.5	24	25	7.5	600

LCD OLED display PSUs

LCD OLED DISPLAY PSUS

Part number	General description	Package	Supply voltage (V_{in}) min (V)	Output voltage (V_{out}) (positive)		Output voltage (V_{out}) (negative)		Output voltage variation (Positive) typ (%)	Output voltage variation (Negative) typ (%)	Quiescent current (I_Q) typ (μ A)	Efficiency max (%)	TDMA noise typ (mV)	Switching frequency			Topology
				Min (V)	Max (V)	Min (V)	Max (V)						Min (MHz)	Typ (MHz)	Max (MHz)	
STLDC08	200 mA dual step-up controller for LED supply	VDFPN 10 3x3x1.0	0.8	6	18	-	-	-	-	0.8	80	-	-	-	-	Boost
STOD32A	300 mA triple DC-DC converter for powering AMOLED displays	VFQFPN 16L 3x3x0.55	2.9	4.577	4.623	-4.8	-0.8	-0.5, +0.5	-1.2, +1.2	-	93	8	1.4	1.55	1.7	Boost + Inverting
STOD32W	100 mA triple DC-DC converter for powering AMOLED displays	Flip-Chip 1.6x1.7 12 bumps	2.9	4.577	4.623	-4.6	-0.8	-0.5, +0.5	-1.2, +1.2	-	92	8	1.4	1.55	1.7	Boost + Inverting

LNB SUPPLIES

Part number	Supply voltage (V_{CC})		Regulated output voltage		Output current-Max (I_{OUT_MAX}) max (A)	Tone amplitude typ (V)
	Min (V)	Max (V)	Min (V)	Max (V)		
LNBH23	8	15	13	18	1	0.65
LNBH23L	8	15	13	18	0.8	0.65
LNBH24L	8	15	13	18	1	0.65
LNBH25	8	16	13	18	1.1	0.675
LNBH25L	8	16	13	18	0.75	0.675
LNBH25LS	8	15	13	18	0.75	0.675
LNBH25S	8	16	13	18	1.1	0.675
LNBH26	8	16	13	18	1.1	0.675
LNBH26L	8	16	13	18	0.75	0.675
LNBH26LS	8	16	13	18	0.75	0.675
LNBH26S	8	16	13	18	1.1	0.675
LNBH29	8	17.5	13	18	0.55	0.675
LNBH30	10	17.5	11.8	15	0.75	-

Hot-swap power management

E-FUSE

Part number	General description	Package	UVLO threshold, rising typ (V)	DC Input voltage max (V)	Output Voltage (V_{OUT}) nom (V)	Clamping Voltage (V_{CL}) nom (V)	Output current (I_{OUT}) nom (A)	$R_{DS(on)}$ typ (m Ω)	$R_{DS(on)}$ max (m Ω)	Operating junction temperature (T_J)	
										Min (°C)	Max (°C)
STEF01	8 V to 48 V fully programmable universal electronic fuse	HTSSOP14	14.5	55	-	28	4	30	70	-40	125
STEF033	Electronic fuse for 3.3 V line	VDFPN 10 3x3x1.0	2.35	8	3.3	4.5	3.6	40	70	-40	125
STEF05	Electronic fuse for 5 V line	VDFPN 10 3x3x1.0	3.6	10	5	6.65	3.6	40	70	-40	125
STEF05D	Electronic fuse for 5 V line	VDFPN 10 3x3x1.0	3.6	10	5	6.65	3.6	40	70	-40	125
STEF12	Electronic fuse for 12 V line	VDFPN 10 3x3x1.0	8.5	18	12	15	3.6	53	70	-40	125
STEF4S	Electronic fuse for 3.3 V and 5 V lines	VDFPN 10 3x3x0.75	2.3 - 3.6	15	3.3 - 5	3.8 - 5.7	5	40	70	-40	125

Voltage references

SHUNT VOLTAGE REFERENCES

Part number	General description	Package	Reference voltage (V_{REF}) nom (V)	Cathode to anode voltage (V_{KA})		Operating cathode current (I_K)		Precision (%) typ	Temperature coefficient of V_{REF} (T_C) max	Static impedance (R_{KA}) max	Operating temperature	
				Min (V)	Max (V)	Min (mA)	Max (mA)				Min (°C)	Max (°C)
LM4041	1.225 V micropower shunt voltage reference	SOT23; SOT323-5L	1.225	-	-	0.04	1.2	0.1	120	0.4	-40	85
TL1431*	Programmable voltage reference	S0-8; T0-92	2.5	2.5	36	1	100	0.25 ; 0.4	100	0.5	-40	105
TL431*	Programmable voltage reference	S0-8; SOT23; SOT23-5L; SOT323-6L; T0-92	2.5	2.5	36	1	100	1 ; 2	100	0.5	-40	105
TL432	Programmable voltage reference	SOT23	2.5	2.5	36	1	100	1 ; 2	100	0.5	-40	125

Note: * automotive grade version available

SHUNT VOLTAGE REFERENCES (CONT'D)

Part number	General description	Package	Reference voltage (V_{REF} nom (V))	Cathode to anode voltage (V_{KA})		Operating cathode current (I_K)		Precision (%) typ	Temperature coefficient of V_{REF} (Tc) max	Static impedance (R_{KS}) max	Operating temperature	
				Min (V)	Max (V)	Min (mA)	Max (mA)				Min (°C)	Max (°C)
TLVH431	Programmable shunt voltage reference	SOT23; SOT23-5L; SOT323-6L	1.24	1.24	18	0.1	60	0.25	100	0.62	-40	125
TS2431	Programmable shunt voltage reference	SOT23	2.5	2.5	24	1	100	0.5	100	0.75	-40	105
TS3431	1.24 V programmable shunt voltage reference	SOT23	1.24	1.24	24	0.4	100	0.25	100	0.4	-40	125
TS4040	2.5 V micropower shunt voltage reference	SOT23	2.5	-	-	0.065	15	1	150	0.6	-40	85
TS4041	Precision micropower shunt voltage reference	SOT23	1.225	-	-	0.065	12	0.5	150	0.5	-40	85
TS4061	Precision micropower shunt voltage reference	SOT23; SOT323-3L	1.225 : 1.25	-	-	0.010	15	0.1	35	0.3	-40	85
TS431*	Low voltage adjustable shunt reference	SOT23-5L; T0-92	1.24	1.24	6	0.06	30	0.2	100	0.4	-40	125
TS432	1.24 V Adjustable shunt voltage reference	SOT23	1.24	1.24	10	0.06	12	0.5	100	0.5	-40	85
TS4431	1.224 V open collector shunt voltage reference	SOT23-5L	1.224	1.224	10	0.25	20	0.5	100	-	-40	85
TS4436	Adjustable 0.6 V open collector shunt voltage reference	SOT323-5L	0.6	0.6	10	0.15	20	0.5	150	-	-40	85
TS821	1.225 V micropower shunt voltage reference	SOT23	1.225	-	-	0.045	12	0.5	120	0.5	-40	85
TS822	2.5 V micropower shunt voltage reference	SOT23	2.5	-	-	0.05	15	1	100	0.6	-40	85
TS824-1.2	High thermal stability micropower shunt voltage reference	SOT23	1.225	-	-	0.04	12	1	50	0.7	-40	85
TS824-2.5	High thermal stability micropower shunt voltage reference	SOT23	2.5	-	-	0.06	15	0.5	50	0.6	-40	85

Note: * automotive grade version available

