Linear Voltage Regulator Selector Guide

Single Output Low-Dropout Linear Regulators (LDOs)

Device	I_{out} (mA)	Dropout* (Typ, mV)	I_q** (Typ, µA)	P_{SRR}**** (dB)	Absolute Max Input Voltage (V)	Package(s)-Pins	V_{out}	Features
MC33761	80	160	180	85	12	SOT-23-5	2.5, 2.8, 2.9, 3, 5 V	Enable, Ultra low noise, Ultra High PSRR
MC78LCxx	80	1 V	1.1	--	12	SOT-23-5, SOT-89-3	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 4, 5 V	Ulta low Iq
NCP502	80	850	40	55	12	SC-70-5, SOT-23-5	1.5, 1.8, 2.5, 2.7, 2.8, 2.9, 3, 3.1, 3.3, 3.4, 3.5, 3.6, 3.7, 5 V	Enable
NCP512	80	160	40	60	6	SC-70-5	1.3, 1.5, 1.8, 2.2, 2.5, 2.7, 2.8, 3, 3.1, 3.3, 5 V	Enable
NCP553	80	650	2.8	25	12	SC82AB-4	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Ultra low Iq, No cap
NCP562	80	190	2.5	25	6	SC82AB-4	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 3.5, 5 V	Enable, Ultra low Iq
NCP563	80	190	2.5	25	6	SC82AB-4	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Ultra low Iq
LM2931A/C/AC	100	160	400 (@ 10 mA)	90	40	SO-8, TO-92-3, TO-220-3/5, DPAK-3, D2PAK-3/5	Adj, 5 V	Ultra High PSSR
LP2950C/AC	100	350	75	47 (@ 0.1 mA, 5 V)	30	DPAK-3, TO-92-3	3, 3.3, 5 V	Tight line & load Reg.
LP2951C/AC	100	350	75	47 (@ 0.1 mA, 5 V)	30	SO-8, Micro8™, DIP-8	Adj, 3, 3.3, 5 V	Enable, Error output
L4949	100	300	150	--	28	SO-8, DIP-8	5 V	Reset, Input Vol. Sense
NCP612	100	200	40	60	6	SC-70-5	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.1, 3.3, **3.7**, 5 V	Enable
NCP662	100	230	2.5	25	6	SC82AB-4	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Enable, Ultra low Iq
NCP663	100	230	2.5	25	6	SC82AB-4	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Ultra low Iq
MC78FC	120	500 (@ 40 mA)	1.1	20	10	SOT-89-3	3, 3.3, 4, 5 V	Ultra low Iq
MC78PC	150	200 (@ 100 mA)	35	70	9	SOT-23-5	1.8, 2.5, 2.8, 3, 3.3, 5 V	Enable, Ultra low noise
NCP3985	150	100	70	70	6	TSOP-5	1.8, 2.5, 2.75, 2.8, 3, 3.3 V	Enable, Ultra low Dropout, High PSRR, Low Niose
NCP400	150	160 (@ 100 mA)	37	50	5.5	Flip-Chip-6	1.8 V	Enable, Reset
NCP500	150	150	175	62	6	SOT-23-5, 2x2.2 DFN-6	1.8, 1.85, 2.5, 2.6, 2.7, 2.8, 3, 3.3, 5 V	Enable, Fast transient
NCP511	150	90 (@ 100 mA)	40	60	6	SOT-23-5	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Enable
NCP551	150	40 (@ 10 mA)	4	25	12	SOT-23-5	1.5, 1.8, 2.5, 2.7, 2.8, **2.9**, 3, 3.1, 3.2, 3.3, 5 V	Enable, Ultra low Iq
NCP561	150	130	4	20	6	SOT-23-5	1.5, 1.8, 2.5, 2.7, 2.8, 3, 3.3, 5 V	Ultra low Iq
NCP623	150	180	170	90	12	Micro8, 3x3 DFN-6	2.5, 2.8, 3, 3.3, 4, 5 V	Enable, Ultra low noise, Ultra High PSRR
NCP582	150	220	75	70	6.5	SOT-563-6, SC82AB-4	1.5, 1.8, 2.5, 2.8, 2.9, 3, 3.3 V	Enable, Ultra low noise
NCP583	150	250	1	45	6.5	SOT-563-6, SC82AB-4	1.5, 1.8, 2.5, **2.6**, 2.8, 2.9, 3, 3.1, 3.3 V	Enable, Ultra low Iq
NCP600	150	75	100 (@ 150 mA)	62	6.5	**2x2.2 DFN-6**, SOT-23-5	Adj, **1.3**, 1.5, 1.8, 2.8, 3, 3.3, 3.5, 5 V	Enable, Fast turn-ON
NCP629	150	75	135 (@ 150 mA)	62	6.5	Flip-Chip-5	1.5, 1.8, 2.8, 3, 3.3, 3.5, 5 V	0.6 mm max height

* Voltage dropout was measured at full load for Vout = 3.3 V where applicable unless noted.
** Iq was measured at 0 or 0.1 mA load unless noted
**** PSRR was measured at f = 120 Hz for Vout = 3.3 @ full load unless otherwise noted.
Note 1: These electrical characteristics are determined by an exteral MOSFET used in conjunction with the LDO controller.
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Single Output Low-Dropout Linear Regulators (LDOs) continued

Device	I_{out} (mA)	Dropout* (Typ, mV)	I_q** (Typ, µA)	P_{SRR}**** (dB)	Absolute Max Input Voltage (V)	Package(s)-Pins	V_{out}	Features
NCP698	150	370	2.5	--	6	SC82AB-4	1.3, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 3.5, 5 V	Enable, Ultra Low Iq
NCP699	150	320	40	55	6	SOT-23-5	**1.3**, **1.4**, 1.5, 1.8, 2.5, 2.8, 3, **3.1**, 3.3, 5 V	Enable
NCP5426	150	150	120	70 (@ 30 mA)	12	SOT-23-5	1.3 V	Enable, Vibrator driver
NCP584	200	100	3.5	75	6.5	SOT-23-5	0.9, 1.2, 1.5, 1.8, 2.5, 2.6, **2.8**, 3, 3.1, 3.3 V	Enable, Tri-mode
NCP700	200	100	70	80	6	SOT-23-5, 2x2.2 DFN-6	1.8, **2.5**, **2.75**, 2.8, 3, **3.3** V	Enable, Ultra low noise, Ultra High PSRR
MC33275	300	260	125	75	13	SO-8, DPAK-3, SOT-223-3, 4x4 DFN-8	2.5, 3, 3.3, 5 V	Tight line & load Reg.
MC33375	300	260	125	75	13	SO-8, SOT-223-3	1.8, 2.5, 3, 3.3, 5 V	Enable
NCP585	300	230	3.5	75 (@ 50 mA)	6.5	SOT-23-5, HSON-6	0.9, 1.0, 1.2, 1.25, 1.5, 1.8, 2.5, 2.8, 3, 3.3 V	Enable, Tri-mode
NCP2860	300	150	355	70	6	Micro8	Adj, 2.77 V	Low noise, Enable, Flag
NCP603	300	157	145	62	6.5	TSOP-5	Adj, 1.3, 1.5, 1.8, 2.8, 3, 3.3, 3.5, 5 V	Enable
NCP5500	500	230	300	75 (@ 100 mA)	18	DPAK-5, **SO-8**	Adj, 1.5, **3.3**, 5 V	Enable, low noise
NCP5501	500	230	300	75 (@ 100 mA)	18	DPAK-3	1.5, **3.3**, 5 V	Low noise
NCP3334	500	340 (max)	190 (max)	75	16	SO-8	Adj	Enable, High accuracy
NCP3335A	500	340 (max)	190 (max)	75	16	Micro8, 3x3 DFN-10	Adj, 1.5, 1.8, 2.5, 2.8, 2.85, 3.0, 3.3, 5 V	Enable, Ultra High accuracy
NCP605	500	170	145 (@ 500mA)	62	6.5	3x3.3 DFN-6	Adj, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 5 V	Enhanced ESD protection
NCP606	500	170	145 (@ 500mA)	62	6.5	3x3.3 DFN-6	Adj, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 5 V	Enable, Enhanced ESD protection
MC33269	800	1.1 V	5.5 mA	55	20	SO-8, DPAK-3, SOT-223-3, TO-220-3	Adj, 3.3, 5, 12 V	Current limit protection
MC34268	800	950 (@ 490 mA)	3.0 mA	55 (min)	15	SO-8, DPAK-3, SOT-223-3	2.85 V	SCSI-2 Active Terminator
NCP1117	1.0 A	1.07 V (@ 800 mA)	3.6 mA	64 (@ 500 mA)	20	DPAK-3, SOT-223-3	Adj, 1.5, 1.8, 1.9, 2, 2.5, 2.85, 3.3, 5, 12 V	Current limit protection
NCP5661	1.0 A	1.0 V	1.3 mA (@ 1 A)	70	18	DPAK-5, 3x3.3 DFN-6	Adj, 1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3 V	Enable, fast transient, flag
NCP565	1.5 A	900	1.5 mA (@ 1.5 A)	85	18	D2PAK-3/5, SOT-223-3, 3x3.3 DFN-6	Adj, 1.2, 1.5, 2.8, 3.0, 3.3 V	Fast transient, Ultra High PSRR
NCP566	1.5 A	900	1.5 mA (@ 1.5 A)	85	9	SOT-223-3	1.2, 1.8, 2.5 V	Fast transient, Ultra High PSRR
NCP1086	1.5 A	1.05 V	5 mA (@ 10 mA)	80	7	D2PAK-3, TO-220-3, SOT-223-3	Adj, 3.3 V	Fast transient,Ultra High Accuracy
NCP5662	2.0 A	1.0 V	1.3 mA (@ 2 A)	70	18	D2PAK-5, 4x4 DFN-8	Adj, 1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3 V	Enable, fast transient, flag
CS5253/B	3.0 A	400	--	80	13	D2PAK-5	Adj, 2.5 V	Control, Sense, Ultra High PSRR
NCP630	3.0 A	1.0 V	0.4 mA (@ 300 mA)	88	12	D2PAK-5	Adj, 3.47 V	Enable, Fast transient, Ultra High PSRR
NCP631	3.0 A	1.0 V	0.4 mA (@ 300 mA)	76	9	D2PAK-5	3.47 V	Enable, Soft start

* Voltage dropout was measured at full load for Vout = 3.3 V where applicable unless noted.
** Iq was measured at 0 or 0.1 mA load unless noted
**** PSRR was measured at f = 120 Hz for Vout = 3.3 @ full load unless otherwise noted.
Note 1: These electrical characteristics are determined by an exteral MOSFET used in conjunction with the LDO controller.
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Single Output Low-Dropout Linear Regulators (LDOs) continued

Device	I_{out} (mA)	Dropout* (Typ, mV)	I_q** (Typ, µA)	$PSRR$**** (dB)	Absolute Max Input Voltage (V)	Package(s)-Pins	V_{out}	Features
NCP5663	3.0 A	1.0 V	1.3 mA (@ 3 A)	70	18	D2PAK-5	Adj, 1.5, 1.8 V	Enable, fast transient, flag
NCP5666	3.0 A	1.0 V	1.8 mA (@ 3 A)	70	18	D2PAK-5	2.5, **5** V	Enable, Fast transient
NCP5667	3.0 A	1.0 V	2.4 mA (@ 3A)	70	18	D2PAK-3	5 V	Enhanced ESD protection
NCP102 (Controller)	Note 1	Note 1	1.4 mA (@ Vcc = 5V)	50 (min)	15	TSOP-6	Adj down to 0.8 V	Enable, MLCC and POSCAP Compatible
NCP3520 (Controller)	Note 1	Note 1	1.25 mA	72	7	Micro8	1.2 V	Controller, Enable, NRCS
NCP3521 (Controller)	Note 1	Note 1	1.25 mA	72	7	Micro8	1.5 V	Controller, Enable, NRCS

* Voltage dropout was measured at full load for Vout = 3.3 V where applicable unless noted.
** Iq was measured at 0 or 0.1 mA load unless noted
**** PSRR was measured at f = 120 Hz for Vout = 3.3 @ full load unless otherwise noted.
Note 1: These electrical characteristics are determined by an exteral MOSFET used in conjunction with the LDO controller.
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Multiple Output Low-Dropout Linear Regulators (LDOs)

Device	I_{out} (mA)	Dropout* (Typ, mV)	I_q** (Typ)	Max Input Voltage (V)	Package(s)	V_{out}	Features
MC33567 (Dual Controller)	Note 1	Note 1	6.3 mA	12.5	SO-8	1.8/1.5, 2.5/2.5, 2.3/1.2 V	Controller, Enable, Undervoltage detection
NCP4672 (Dual)	30, 80	150, -- (@ 20mA)	1.0 mA	18	SO-8	3.5/1.8 V	Programmable delay, Reset
MC33762 (Dual)	80, 80	160, 160	180	12	Micro8	2.5/2.5, 2.8/2.8, 3/3 V	Enable, Fast off to on, low noise
NCP4523 (Triple)	150, 80, 80	220, 160, 160	210	7	SSOP-8	2.8/2.8/2.8, 3/3/3, 2.35/2.8/2.8 V	Tight line & load Reg., High PSSR
MC33765 (5 Outputs)	30, 40, 50, 150, 60	110, 110, 110, 170, 110	470	5.3	TSSOP-16	5x2.8 V	Enable, Byp Pin, Ultra Low noise
NCP5504 (Dual)	250, 250	250, 250	370	18	DPAK-5	3.3/Adj V	Low noise, High PSSR
NCP590 (Dual)	300, 300	165, 165	115	5.5	2x2 DFN-8	Combinations ranging from 0.8 to 5V	Enable, Ultra High Accuracy, Ultra Low Dropout

* Voltage dropout was measured at full load for Vout = 3.3 V where applicable unless noted.
** Iq was measured at 0 or 0.1 mA load unless noted
Note 1: These electrical characteristics are determined by an exteral MOSFET used in conjunction with the LDO controller.

Linear Regulators

Device	I_{out} (mA)	Dropout* (Typ, mV)	Max Input Voltage (V)	Package(s)	V_{out}	Features
LM317L	100	2	40	SO-8, TO-92-3	Adj.	Current & thermal protection
MC33160	100	2	40	SO-16, DIP-16	5 V	Enable, sense, reset
MC34160	100	2	40	SO-16, DIP-16	5 V	Enable, sense, reset
MC78LxxA	100	1.7	40	SO-8, TO-92-3	5, 8, 9, 12, 15, 18, 24 V	Current & thermal protection
MC79Lxx/A	100	1.7 (@ 40 mA)	-40	SO-8, TO-92-3	-(5, 12, 15, 18, 24) V	Current & thermal protection
MC33565 (Controller)	Note 1	Note 1	7	SO-8, Micro8	3.3 V	Controller, Auxillary control, Sense
LM317M	500	2.2	40	TO-220-3, DPAK-3, SOT-223-3	Adj.	Current & thermal protection
MC78Mxx/A	500	2	40	TO-220-3, DPAK-3	5, 6, 8, 9, 12, 15, 18, 20, 24 V	Current & thermal protection
MC79Mxx/A	500	1.1	-35	TO-220-3, DPAK-3	-(5, 8, 12, 15) V	Current & thermal protection
MC78xx/A/**AE**	1.0 A	2	40	D2PAK-3, TO-220-3, DPAK-3	5, 6, 8, 9, 12, 15, 18, 24 V	Current & thermal protection
MC79xx/A	1.0 A	1.3	-40	TO-220-3, D2PAK-3	-(5, 5.2, 6, 8, 12, 15, 18, 24) V	Current & thermal protection
LM317	1.5 A	2.25	40	D2PAK-3, TO-220-3	Adj.	Current & thermal protection
LM337	1.5 A	2.4	-40	TO-220-3, D2PAK-3	Adj.	Current & thermal protection
LM350	3.0 A	2.7	35	TO-220-3	Adj.	Current & thermal protection

* Voltage dropout was measured at full load for Vout = 3.3 V where applicable unless noted.
Note 1: These electrical characteristics are determined by an exteral MOSFET used in conjunction with the LDO controller.

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