

Product Overview

NCP1117: LDO Regulator, 1 A, Fixed and Adjustable, Positive

For complete documentation, see the data sheet.

The NCP1117 series are low dropout (LDO) positive linear voltage regulators that are capable of providing an output current that is in excess of 1.0 A with a maximum dropout voltage of 1.2 V at 800 mA over temperature. This series contains eight fixed output voltages of 1.5 V, 1.8 V, 2.0 V, 2.5 V, 2.85 V, 3.3 V, 5.0 V, and 12 V that have no minimum load requirement to maintain regulation. Also included is an adjustable output version that can be programmed from 1.25 V to 18.8 V with two external resistors. On chip trimming adjusts the reference/output voltage to within +/- 1.0% accuracy. Internal protection features consist of output current limiting, safe operating area compensation, and thermal shutdown. The NCP1117 series can operate with up to 20 V input. Devices are available in SOT223 and DPAK packages.

Features

- Output Current in Excess of 1.0 A
- 1.2 V Maximum Dropout Voltage at 800 mA Over Temperature
- Fixed Output Voltages of 1.5 V, 1.8 V, 2.0 V, 2.5 V, 2.85 V, 3.3 V, 5.0 V, and 12 V
- Adjustable Output Voltage Option
- No Minimum Load Requirement for Fixed Voltage Output Devices
- Reference/Output Voltage Trimmed to +/- 1.0%
- Current Limit, Safe Operating and Thermal Shutdown Protection
- Operation to 20 V Input
- Pb-Free Packages are Available

Applications

- Consumer and Industrial Equipment Point of Regulation
- Active SCSI Termination for 2.85 V Version
- Switching Power Supply Post Regulation
- Hard Drive Controllers
- Battery Chargers

End Products

- Direct replacement LM1117

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _o (V)	I _{o Typ} (A)	V _{i Min} (V)	V _{i Max} (V)	V _{Do Typ} (V)	I _{q Typ} (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCP1117DT12G	0.1403	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	12	1	2.4	20	1.2	6	54	360	No	No	Industrial	DPA K-3
NCP1117DT12RKG	0.1537	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	12	1	2.4	20	1.2	6	54	360	No	No	Industrial	DPA K-3
NCP1117DT15G	0.1445	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	1	2.4	20	1.2	4.3	72	45	No	No	Industrial	DPA K-3
NCP1117DT15RKG	0.1417	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	1	2.4	20	1.2	4.3	72	45	No	No	Industrial	DPA K-3
NCP1117DT18G	0.1423	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	1	2.4	20	1.2	4.3	72	54	No	No	Industrial	DPA K-3
NCP1117DT18RKG	0.1447	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	1	2.4	20	1.2	4.3	72	54	No	No	Industrial	DPA K-3
NCP1117DT18T5G	0.1647	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	1	2.4	20	1.2	4.3	72	54	No	No	Industrial	DPA K-3
NCP1117DT20G	0.1576	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2	1	2.4	20	1.2	4.5	70	60	No	No	Industrial	DPA K-3
NCP1117DT20RKG	0.1496	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2	1	2.4	20	1.2	4.5	70	60	No	No	Industrial	DPA K-3
NCP1117DT25G	0.1451	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	1	2.4	20	1.2	5.2	68	75	No	No	Industrial	DPA K-3
NCP1117DT25RKG	0.1511	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	1	2.4	20	1.2	5.2	68	75	No	No	Industrial	DPA K-3
NCP1117DT25T5G		Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	1	2.4	20	1.2	5.2	68	75	No	No	Industrial	DPA K-3
NCP1117DT285G	0.3077	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.85	1	2.4	20	1.2	5.5	68	85.5	No	No	Industrial	DPA K-3
NCP1117DT285RKG	0.1377	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.85	1	2.4	20	1.2	5.5	68	85.5	No	No	Industrial	DPA K-3
NCP1117DT33G	0.1485	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	1	2.4	20	1.2	6	64	99	No	No	Industrial	DPA K-3
NCP1117DT33RKG	0.1577	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	1	2.4	20	1.2	6	64	99	No	No	Industrial	DPA K-3

NCP1117DT33T5G	0.1445	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	1	2.4	20	1.2	6	64	99	No	No	Industrial	DPA K-3
NCP1117DT50G	0.14	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	5	1	2.4	20	1.2	6	61	150	No	No	Industrial	DPA K-3
NCP1117DT50RKG	0.1699	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	5	1	2.4	20	1.2	6	61	150	No	No	Industrial	DPA K-3
NCP1117DTAG	0.1492	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	2.4	20	1.2	3.6	73	-	No	No	Industrial	DPA K-3
NCP1117DTARKG	0.1588	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	2.4	20	1.2	3.6	73	-	No	No	Industrial	DPA K-3
NCP1117DTAT5G	0.1516	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	1	2.4	20	1.2	3.6	73	99	No	No	Industrial	DPA K-3
NCP1117ST12T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	12	1	2.4	20	1.2	6	54	360	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST15T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	1	2.4	20	1.2	4.3	72	45	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST18T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	1	2.4	20	1.2	4.3	72	54	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST20T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2	1	2.4	20	1.2	4.5	70	60	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST25T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	1	2.4	20	1.2	5.2	68	75	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST33T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	1	2.4	20	1.2	6	64	99	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117ST50T3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	5	1	2.4	20	1.2	6	61	150	No	No	Industrial	SOT- 223- 4 / TO- 261- 4
NCP1117STAT3G	0.1379	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	2.4	20	1.2	3.6	73	-	No	No	Industrial	SOT- 223- 4 / TO- 261- 4

For more information please contact your local sales support at www.onsemi.com.

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