

Product Overview

NCV1117: Linear Voltage Regulator, 1 A, High PSRR

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

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 _{g Typ} (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCV1117DT12RKG	0.3456	AEC Qualified	Active	Single	Positive	12	1	2.4	20	1.07	6	54	360	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DT15RKG	0.3456	AEC Qualified	Active	Single	Positive	1.5	1	2.4	20	1.07	3.6	72	45	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DT18RKG	0.3456	AEC Qualified	Active	Single	Positive	1.8	1	2.4	20	1.07	4.2	70	54	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DT18T5G	0.3456	AEC Qualified	Active	Single	Positive	1.8	1	2.4	20	1.07	4.2	70	54	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DT33T5G	0.3745	AEC Qualified	Active	Single	Positive	3.3	1	2.4	20	1.07	6	64	99	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DT50RKG	0.3445	AEC Qualified	Active	Single	Positive	5	1	2.4	20	1.07	6	61	150	No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117DTARKG	0.3265	AEC Qualified	Active	Single	Positive	Adj	1	2.4	20	1.07		73		No	No	Automotive	DPA K-3
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117ST12T3G	0.372	AEC Qualified	Active	Single	Positive	12	1	2.4	20	1.07	6	54	360	No	No	Automotive	SOT-223-4 / TO-261-4
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117ST18T3G	0.372	AEC Qualified	Active	Single	Positive	1.8	1	2.4	20	1.07	4.2	70	54	No	No	Automotive	SOT-223-4 / TO-261-4
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117ST20T3G	0.372	AEC Qualified	Active	Single	Positive	2	1	2.4	20	1.07	4.5	70	60	No	No	Automotive	SOT-223-4 / TO-261-4
		PPAP Capable															
		Pb-free															
		Halide free															
NCV1117ST25T3G	0.372	AEC Qualified	Active	Single	Positive	2.5	1	2.4	20	1.07	5.2	68	75	No	No	Automotive	SOT-223-4 / TO-261-4
		PPAP Capable															
		Pb-free															
		Halide free															

NCV1117ST33T3G	0.372	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	1	2.4	20	1.07	6	64	99	No	No	Automotive	SOT-223-4 / TO-261-4
NCV1117ST50T3G	0.372	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	5	1	2.4	20	1.07	6	61	150	No	No	Automotive	SOT-223-4 / TO-261-4D
NCV1117STAT3G	0.372	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	Adj	1	2.4	20	1.07		73		No	No	Automotive	SOT-223-4 / TO-261-4

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

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