



Product Overview

NCP630: Linear Voltage Regulator, Fast, 3.0 A

For complete documentation, see the data sheet

Product Description

The NCP630 is a low dropout (LDO) positive linear voltage regulator that is capable of providing a guaranteed output current of 3.0 A with a maximum dropout voltage of 1.25 V at 3.0 A over temperature. The fast turn on time allows step changes in loads commonly found in low voltage microprocessor applications. The NCP630 is currently offered as an adjustable output version that can be programmed down to 1.2 V with two external resistors and as a fixed output version at 3.47 V. On chip trimming adjusts the reference/output voltage within $\pm 1.5\%$ accuracy. Internal protection features consist of output current limiting and thermal shutdown. NCP630 is available in D2PAK package.

Features

- Output Current of 3.0 A
- 1.25 V Maximum Dropout Voltage at 3.0 A Over Temperature
- Voltage on Shutdown Pin is TTL Compatible
- Reference/Output Voltage Trimmed to ± 1.5
- Current Limit Protection
- Thermal Shutdown Protection
- -40°C to 125°C Junction Temperature Range
- Pb-Free Packages are Available

Applications

- Microprocessor Power Supplies
- DSP Power Supplies
- SMPS Post Regulation
- Battery Chargers

Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V_o (V)	I_o Typ (A)	V_i Max (V)	V_{DO} Typ (V)	I_q Typ (mA)	PSRR (dB)	Noise (μV_{rms})	Package Type
NCP630AD2TG	Pb-free Halide free	Active	Single	Positive	Adjustable	3	12	1.25				D ² PAK-5
NCP630AD2TR4G	Pb-free Halide free	Active	Single	Positive	Adjustable	3	12	1.25				D ² PAK-5
NCP630GD2TG	Pb-free Halide free	Active	Single	Positive	3.47	3	12	1.25				D ² PAK-5
NCP630GD2TR4G	Pb-free Halide free	Active	Single	Positive	3.47	3	12	1.25				D ² PAK-5

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

Created on: 7/11/2015