



Product Overview

NCP612: Linear Voltage Regulator, CMOS, Low Iq, 100 mA

[For complete documentation, see the data sheet](#)

Product Description

The NCP612 Low Quiescent Current Low Dropout (LDO) Linear Voltage Regulator is designed for handheld communication equipment and portable battery powered applications which require low quiescent. The NCP612 series features an ultra-low quiescent current of 40µA. Each device contains a voltage reference unit, an error amplifier, a PMOS power transistor, resistors for setting output voltage, current limit, and temperature limit protection circuits.

The NCP612 has been designed to be used with low cost ceramic capacitors. The device is housed in the micro-miniature SC70-5 surface mount package. Standard voltage versions are 1.5, 1.8, 2.5, 2.7, 2.8, 3.0, 3.3, and 5.0 V.

Features

- Low Quiescent Current of 40 A Typical
- Low Dropout Voltage of 250 mV at 80 mA
- Low Output Voltage Option
- Output Voltage Accuracy of 2.0%
- NCP Series Temperature Range of -40°C to 85°C
- NCV Series Temperature Range of -40°C to 125°C

Applications

- Cellular Phones
- Battery Powered Consumer Products
- HandHeld Instruments

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
NCP612SQ15T2G	Pb-free Halide free	Active	Single	Positive	1.5	0.1	6	0.53	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ18T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.1	6	0.42	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ25T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.1	6	0.27	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ27T2G	Pb-free Halide free	Active	Single	Positive	2.7	0.1	6	0.27	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ28T2G	Pb-free Halide free	Active	Single	Positive	2.8	0.1	6	0.25	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ30T2G	Pb-free Halide free	Active	Single	Positive	3	0.1	6	0.23	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ31T2G	Pb-free Halide free	Active	Single	Positive	3.1	0.1	6	0.21	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ33T2G	Pb-free Halide free	Active	Single	Positive	3.3	0.1	6	0.2	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ37T2G	Pb-free Halide free	Active	Single	Positive	3.7	0.1	6	0.18	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5
NCP612SQ50T2G	Pb-free Halide free	Active	Single	Positive	5	0.1	6	0.16	0.04		100	SC-88A-5 / SC-70-5 / SOT-323-5

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

Created on: 7/11/2015