

Product Overview

NCP551: Linear Voltage Regulator, LDO, Low I_q, 150 mA

For complete documentation, see the data sheet

Product Description

The NCP551 series of fixed output low dropout (LDO) linear voltage regulators are designed for applications which require low quiescent current. The NCP551 series features an ultra-low quiescent current of 4.0 μ A. 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 NCP551 has been designed to be used with low cost ceramic capacitors and requires a minimum output capacitor of 0.1 μ F. The device is housed in the micro miniature TSOP-5 surface mount package. Standard voltage versions are 1.4, 1.5, 1.8, 2.5, 2.7, 2.8, 3.0, 3.3, and 5.0 V. Other voltages are available in 100 mV steps.

Features

- Low quiescent current of 4.0 μ A typical
- Maximum Operating Voltage of 12 V
- Low Output Voltage Option
- High Accuracy Output Voltage of 2.0%
- Industrial Temperature Range of -40° C to 85° C

Applications

- Battery Powered Instruments
- Hand-Held Instruments
- Communication Equipment
- Consumer

End Products

- Camcorders and Cameras

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 (μ V _{rms})	Package Type
NCP551SN15T1G	Pb-free Halide free	Active	Single	Positive	1.5	0.15	12	0.13				TSOP-5 / SOT-23-5
NCP551SN18T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.15	12	0.13				TSOP-5 / SOT-23-5
NCP551SN25T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.15	12	0.13				TSOP-5 / SOT-23-5
NCP551SN27T1G	Pb-free Halide free	Active	Single	Positive	2.7	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN28T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN29T1G	Pb-free Halide free	Active	Single	Positive	2.9	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN30T1G	Pb-free Halide free	Active	Single	Positive	3	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN31T1G	Pb-free Halide free	Active	Single	Positive	3.1	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN32T1G	Pb-free Halide free	Active	Single	Positive	3.2	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN33T1G	Pb-free Halide free	Active	Single	Positive	3.3	0.15	12	0.04				TSOP-5 / SOT-23-5
NCP551SN50T1G	Pb-free Halide free	Active	Single	Positive	5	0.15	12	0.04				TSOP-5 / SOT-23-5

