



Product Overview

NCP4680: Linear Voltage Regulator, LDO, Low Noise, 150 mA

For complete documentation, see the data sheet

Product Description

The NCP4680 is a CMOS Linear Voltage Regulator with 150 mA output current capability. The device is available in a tiny 0.8x0.8 mm XDFN, and has high output voltage accuracy, low supply current and high ripple rejection. The NCP4680 is easy to use and includes output current fold-back protection. A Chip Enable function is included to save power by lowering supply current. The line and load transient responses are very good, making this regulator ideal for use as a power supply for communication equipment.

Features	Benefits
<ul style="list-style-type: none"><li>• Operating Input Voltage: 1.4 V to 5.25 V</li><li>• Output Voltage Range: 0.8 V to 3.6 V (available in 0.1 V steps)</li><li>• Output voltage accuracy: <math>\pm 1.0\%</math></li><li>• Current Fold Back Protection</li><li>• Low Dropout Voltage: 250 mV typ. at 150 mA</li><li>• Supply Current: 50 <math>\mu</math>A typ.</li></ul>	<ul style="list-style-type: none"><li>• Well suited to battery powered applications</li><li>• Contact your local sales office for custom voltage options</li></ul>
Applications	End Products
<ul style="list-style-type: none"><li>• Battery-Powered Equipment</li><li>• Point of Load Voltage Regulation</li></ul>	<ul style="list-style-type: none"><li>• Networking and Communication Equipment</li><li>• Cameras, DVRs, STB and Camcorders</li><li>• Home Appliances</li></ul>

## Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V <sub>O</sub> (V)	I <sub>O</sub> Typ (A)	V <sub>I</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>a</sub> Typ (mA)	PSRR (dB)	Noise (μV <sub>rms</sub> )	Package Type
NCP4680DMX10TCG	Pb-free Halide free	Active	Single	Positive	1	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX12TCG	Pb-free Halide free	Active	Single	Positive	1.2	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX15TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX18TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX23TCG	Pb-free	Active	Single	Positive	2.3	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX28TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX30TCG	Pb-free Halide free	Active	Single	Positive	3	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DMX33TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.15	6	0.25	0.05	75	60	XDFN-4
NCP4680DSQ08T1G	Pb-free Halide free	Active	Single	Positive	0.8	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ09T1G	Pb-free Halide free	Active	Single	Positive	0.9	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ12T1G	Pb-free Halide free	Active	Single	Positive	1.2	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ15T1G	Pb-free Halide free	Active	Single	Positive	1.5	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ18T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ25T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ28T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ30T1G	Pb-free Halide free	Active	Single	Positive	3	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5
NCP4680DSQ33T1G	Pb-free Halide free	Active	Single	Positive	3.3	0.15	6	0.25	0.05	75	60	SC-88A-5 / SC-70-5 / SOT-323-5

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

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