

Product Overview

NCP508: LDO Regulator, 50 mA, High PSRR, Low Noise, with Fast Turn On

For complete documentation, see the data sheet.



The NCP508 is a 50 mA low noise, low dropout (LDO) linear voltage regulator, designed to exhibit fast turn-on time, low noise and high ripple rejection. The device is robust, incorporating current limiting and temperature protection circuitry. The NCP508 has been designed for use with low cost ceramic capacitors and is housed in an SC-88A or a tiny 1.5x1.5 mm WDFN package. Standard voltage versions are 1.5, 1.8, 2.5, 2.8, 3.0, and 3.3. Other voltages may be available, along with Automotive qualified versions of the device: contact your local sales representative.

Features

- Very Low Noise at 39 μ Vrms without a Bypass Capacitor
- Fast enable response (20 μ sec)
- High Ripple Rejection of 70 dB at 1 kHz
- Can use decoupling capacitors with ESR ranging from milliohms to 3 ohms.

Applications

- RF Subsystems in Handsets
- Noise sensitive circuits; VCOs, PLL

Benefits

- Suitable for audio or measurement applications
- Responds quickly to a turn-on signal
- Provides a clean voltage rail from a battery or noisy supply
- Suitable for cheap ceramic capacitors

End Products

- Bluetooth headsets
- Meters, Instrumentation

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
NCP508MT15TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508MT18TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508MT25TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508MT28TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.8	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508MT30TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508MT33TBG	0.1216	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.05	1.8	13	0.155	0.3	70	39	Yes	No		WDF N-6
NCP508SQ15T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5
NCP508SQ18T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5
NCP508SQ25T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5
NCP508SQ28T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.8	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5
NCP508SQ30T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5
NCP508SQ33T1G	0.1119	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.05	1.8	13	0.155	0.3	70	39	Yes	No		SC-88A / SC-70-5

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

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