



Product Overview

NCP700B: Linear Voltage Regulator, LDO, Ultra Low Noise, High PSRR, 200 mA

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

Product Description

Noise sensitive RF applications such as Power Amplifiers in cell phones and precision instrumentation require very clean power supplies.

The NCP700B is a 200 mA low dropout (LDO) linear voltage regulator that provides the engineer with a very stable, accurate voltage with ultra low noise and very high Power Supply Rejection Ratio (PSRR) suitable for RF applications. In order to optimize performance for battery operated portable applications, the NCP700B employs an advanced BiCMOS process to combine the benefits of low noise and superior dynamic performance of bipolar elements with very low ground current consumption at full loads offered by CMOS.

Furthermore, in order to provide a small footprint for space-conscious applications, the NCP700B is stable with small, low value capacitors and is available in a very small 1.5x1.5mm WDFN6 and TSOP-5 packages.

Features

- Operating Input Voltage: 2.5V to 5.5V
- High Ripple Rejection Ratio: Typ. 82dB @ 1kHz
- Ultra-Low Output Noise: Typ. 10 μ V from 10Hz to 100kHz
- Stable with output capacitors as low as 1 μ F
- Active Discharge
- Output Voltage Options: 1.8V, 2.8V, 3.0V, 3.3V
- Low Sleep Mode Current: Max. 1 μ A
- Current Limit Protection
- Thermal Shutdown Protection
- These are Pb-Free Devices

Benefits

- Well suited for battery powered applications
- Effectively filters the supply line noise
- Very well suited for noise sensitive applications
- Small solution size
- Fast Turn-off

Applications

- Power Supply for Camera Modules
- Audio/Video, RF Section Supply
- Noise Sensitive Applications

End Products

- Smartphones/PDAs/Palmtops/GPS
- Cellular Telephones
- Medical Equipment
- Battery Powered Devices

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
NCP700BMT18TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.2	6		0.07	82	10	WDFN-6
NCP700BMT25TBG	Pb-free Halide free	Active	Single	Positive	2.5	0.2	6	0.14	0.07	82	10	WDFN-6
NCP700BMT28TBG	Pb-free Halide free	Active	Single	Positive	2.8	0.2	6	0.12	0.07	82	10	WDFN-6
NCP700BMT30TBG	Pb-free Halide free	Active	Single	Positive	3	0.2	6	0.115	0.07	82	10	WDFN-6
NCP700BMT33TBG	Pb-free Halide free	Active	Single	Positive	3.3	0.2	6	0.11	0.07	82	10	WDFN-6
NCP700BSN18T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.2	6		0.07	82	10	TSOP-5 / SOT-23-5
NCP700BSN25T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.2	6	0.14	0.07	82	10	TSOP-5 / SOT-23-5
NCP700BSN28T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.2	6	0.12	0.07	82	10	TSOP-5 / SOT-23-5
NCP700BSN30T1G	Pb-free Halide free	Active	Single	Positive	3	0.2	6	0.115	0.07	82	10	TSOP-5 / SOT-23-5
NCP700BSN33T1G	Pb-free Halide free	Active	Single	Positive	3.3	0.2	6	0.11	0.07	82	10	TSOP-5 / SOT-23-5

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

Created on: 7/11/2015