



Product Overview

NCV8570B: Linear Voltage Regulator, LDO, High PSRR, Ultra Low Noise, 200 mA

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

Product Description

The NCV8570B is a 200 mA Low Dropout Linear Voltage Regulator with ultra low noise characteristics. Its low noise combined with high Power Supply Rejection Ratio (PSRR) make it especially suited for use in RF, audio or imaging applications. The device is manufactured in an advanced BiCMOS process to provide a powerful combination of low noise and excellent dynamic performance but with very low ground current consumption at full loads. The NCV8570B is stable with small, low value capacitors allowing designers to minimise the total PCB space occupied by the solution. The device is packaged in a small 2x2.2mm DFN6 package as well as in a TSOP-5 package.

Features

- Operating Input Voltage Range: 2.5V to 5.5V
- High Ripple Rejection Ratio: Typ. 82dB @ 1kHz
- Ultra-Low Output Noise: Typ. 10µVrms from 10Hz to 100kHz
- Stable with output capacitors as low as 1µF
- Active Discharge
- Low Sleep Mode Current: Max. 1A
- AECQ100 qualified and PPAP capable
- Output Voltage Options: 1.8V, 2.8V, 3.0V, 3.3V
- Current Limit Protection
- Thermal Shutdown Protection

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
- Extends battery life is used in battery powered applications
- Suitable for Automotive applications

Applications

- Audio/Video, RF Section Supply
- Noise Sensitive Applications such as RF receivers and transmitters

End Products

- GPS modules
- Portable/Build-In DVD Entertainment Systems
- Satellite and HD Radio
- Cameras for lane change detection and reverse view

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
NCV8570BMN180R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.2	6		0.075	82	10	DFN-6
NCV8570BMN250R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.2	6	0.14	0.075	82	10	DFN-6
NCV8570BMN280R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.2	6	0.205	0.075	82	10	DFN-6
NCV8570BMN300R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.2	6	0.19	0.075	82	10	DFN-6
NCV8570BMN330R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.2	6	0.185	0.075	82	10	DFN-6
NCV8570BSN18T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.2	6		0.075	82	10	TSOP-5 / SOT-23-5
NCV8570BSN25T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.2	6	0.14	0.075	82	10	TSOP-5 / SOT-23-5
NCV8570BSN28T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.2	6	0.205	0.075	82	10	TSOP-5 / SOT-23-5
NCV8570BSN30T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.2	6	0.19	0.075	82	10	TSOP-5 / SOT-23-5
NCV8570BSN33T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.2	6	0.185	0.075	82	10	TSOP-5 / SOT-23-5

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

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