Product Overview

NCV8702: LDO Regulator, 200 mA, Ultra-Low Dropout, Ultra-Low Iq, High PSRR, Ultra-Low Noise

For complete documentation, see the data sheet.

The NCV8702 is a 200 mA Ultra-Low Quiescent Current, Low Dropout Linear Voltage Regulator with Ultra Low Noise characteristics. It's 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 current consumption and excellent noise performance. The NCV8702 is stable with small, low value 1µ capacitors allowing designers to minimise the total PCB space occupied by the solution. The device is packaged in a small 1.5x1.5mm xDFN6 package as well as in a TSOP-5 package.

Features

- Operating Input Voltage Range: 2.0V to 5.5V
- Ultra-Low Output Noise: Typ. 11µVrms from 100Hz to 100kHz
- Ultra-Low Current Consumption of Max. 16µA
- High Ripple Rejection Ratio: Typ. 70dB @ 1kHz
- Very-Low Dropout Voltage: Max. 200mV @ 200mA, VOUT=2.5V
- AECQ100 qualified
- Ouput Short Circuit and Current Limit Protection
- Available Fixed Output Voltage Options: 0.8V to 3.5V
- Enable/Shutdown Pin Function
- Thermal Shutdown Protection

For more features, see the data sheet

Benefits

- Well suited for low voltage and battery powered applications
- Well suited for noise sensitive applications
- Good efficiency during ligh-load conditions
- Effectively filters the supply rail noise
- Supports applications with very low Input to Output Voltage requirements
- Meets automotive qualification requirements
- Protect the device from accidental shorts and overload
- Sub-bandgap output voltages avaliable
- Allows to turn ON/OFF the Regulator using logic I/O line
- Protects from overheating

Applications

- Audio/Video, RF Section Supply
- Noise Sensitive Applications such as RF receivers and transmiters
- Precision Clock Supplies
- Camera Modules
- GPS Chipsets

End Products

- Satellite Radio Receiver
- Car and Portable GPS System
- Rear View Camera
- Electronic Mirrors
- Lane Change Detectors

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_q Typ (mA)	PSRR (dB)	Noise (μV_{rms})	Enable	PowerGood	Package Type
NCV8702MX18TCG	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.2	2	5.5		0.01	68	11	Yes	No	XDFN-6
NCV8702MX25TCG	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.2	2	5.5	0.14	0.01	68	11	Yes	No	XDFN-6
NCV8702MX28TCG	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.2	2	5.5	0.14	0.01	68	11	Yes	No	XDFN-6
NCV8702MX30TCG	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.2	2	5.5	0.14	0.01	68	11	Yes	No	XDFN-6
NCV8702MX33TCG	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.2	2	5.5	0.14	0.01	68	11	Yes	No	XDFN-6
NCV8702SN18T1G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.2	2	5.5	0.14	0.01	68	11	Yes	No	TSOP-5 / SOT-23-5
NCV8702SN28T1G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.2	2	5.5	0.14	0.01	68	11	Yes	No	TSOP-5 / SOT-23-5
NCV8702SN30T1G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.2	2	5.5	0.14	0.01	68	11	Yes	No	TSOP-5 / SOT-23-5
NCV8702SN33T1G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.2	2	5.5	0.14	0.01	68	11	Yes	No	TSOP-5 / SOT-23-5

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

Created on: 8/6/2020