Product Overview

NCP707: Linear Voltage Regulator, LDO, Ultra Low Iq, Low Noise, 200 mA

For complete documentation, see the data sheet

Product Description

The NCP707 is 200mA LDO that provides the engineer with a very stable, accurate voltage with very-low noise suitable for space constrained, noise sensitive applications. In order to optimize the performance for battery operated portable applications, the NCP707 employs the dynamic quiescent current adjustment for very-low I_Q consumption at no-load.

Features

- Operating Input Voltage Range: 1.8V to 5.5V
- Ultra-Low Output Noise: Typ. 22µVrms
- Very-Low Quiescent Current: Typ. 25µA
- High Ripple Rejection Ratio: Typ. 70dB @ 1kHz
- Fixed Voltage Options from 1.5V to 3.3V
- Very Low Dropout: Typ. 120 mV @ 200 mA
- ±2% Accuracy Over Load/Line/Temperature
- Thermal Shutdown and Current Limit Protections
- Available in XDFN 1.0 x 1.0 mm Package
- Options With/Without Active Discharge are available

Benefits

- Well suited for battery powered applications
- Ideal for noise sensitive applications
- Improved efficiency during ligh-load conditions
- Effectively filters the supply line noise
- Supports major low-voltage rails
- Supports applications with very low Input to Output Voltage requirements
- Provides accurate voltage rail
- Assures robust design
- Very well suited for space-constrained applications

Applications

- Touchscreen Controller Supply
- Camera Module Power Supply
- GPS Receiver Section Supply
- Low Power MCU, FPGA Power Supply

End Products

- Smartphone
- Tablet
- GPS Portable Navigation Device
- Low-Power Wireless Devices
- Wireless Headset

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
NCP707AMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.2	5.5	0.415	0.025	70	22	XDFN-4
NCP707AMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.2	5.5	0.221	0.025	70	22	XDFN-4
NCP707AMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.2	5.5	0.218	0.025	70	22	XDFN-4
NCP707AMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.2	5.5	0.135	0.025	70	22	XDFN-4
NCP707AMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.2	5.5	0.118	0.025	70	22	XDFN-4
NCP707AMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.2	5.5	0.114	0.025	70	22	XDFN-4
NCP707AMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.2	5.5	0.111	0.025	70	22	XDFN-4
NCP707AMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.2	5.5	0.107	0.025	70	22	XDFN-4
NCP707AMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.2	5.5	0.1	0.025	70	22	XDFN-4
NCP707BMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.2	5.5	0.415	0.025	70	22	XDFN-4
NCP707BMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.2	5.5	0.221	0.025	70	22	XDFN-4
NCP707BMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.2	5.5	0.218	0.025	70	22	XDFN-4
NCP707BMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.2	5.5	0.135	0.025	70	22	XDFN-4
NCP707BMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.2	5.5	0.118	0.025	70	22	XDFN-4
NCP707BMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.2	5.5	0.114	0.025	70	22	XDFN-4
NCP707BMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.2	5.5	0.111	0.025	70	22	XDFN-4
NCP707BMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.2	5.5	0.107	0.025	70	22	XDFN-4
NCP707BMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.2	5.5	0.1	0.025	70	22	XDFN-4
NCP707CMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.2	5.5	0.415	0.025	70	22	XDFN-4
NCP707CMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.2	5.5	0.221	0.025	70	22	XDFN-4
NCP707CMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.2	5.5	0.218	0.025	70	22	XDFN-4
NCP707CMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.2	5.5	0.135	0.025	70	22	XDFN-4
NCP707CMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.2	5.5	0.118	0.025	70	22	XDFN-4
NCP707CMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.2	5.5		0.025	70	22	XDFN-4
NCP707CMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.2	5.5	0.111	0.025	70	22	XDFN-4
NCP707CMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.2	5.5	0.107	0.025	70	22	XDFN-4
NCP707CMX320TCG	Pb-free Halide free	Active	Single	Positive	3.2	0.2	5.5	0.105	0.025	70	22	XDFN-4

NCP707CMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.2	5.5	0.1	0.025	70	22	XDFN-4

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

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