Product Overview

NCP717: Linear Voltage Regulator, LDO, Very Low Noise, 300 mA

For complete documentation, see the data sheet

Product Description

The NCP717 is 300 mA 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 performance for battery operated portable applications, the NCP717 employs the dynamic quiescent current adjustment for very low IQ 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. 175 mV @ 300 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
NCP717AMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.3	5.5		0.025	70	22	XDFN-4
NCP717AMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	5.5		0.025	70	22	XDFN-4
NCP717AMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.3	5.5		0.025	70	22	XDFN-4
NCP717AMX190TCG	Pb-free Halide free	Active	Single	Positive	1.9	0.3	5.5		0.025	70	22	XDFN-4
NCP717AMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	5.5	0.19	0.025	70	22	XDFN-4
NCP717AMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	5.5	0.175	0.025	70	22	XDFN-4
NCP717AMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.3	5.5	0.175	0.025	70	22	XDFN-4
NCP717AMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.3	5.5	0.17	0.025	70	22	XDFN-4
NCP717AMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.3	5.5	0.165	0.025	70	22	XDFN-4
NCP717AMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	5.5	0.155	0.025	70	22	XDFN-4
NCP717BMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.3	5.5		0.025	70	22	XDFN-4
NCP717BMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	5.5		0.025	70	22	XDFN-4
NCP717BMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.3	5.5		0.025	70	22	XDFN-4
NCP717BMX190TCG	Pb-free Halide free	Active	Single	Positive	1.9	0.3	5.5		0.025	70	22	XDFN-4
NCP717BMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	5.5	0.19	0.025	70	22	XDFN-4
NCP717BMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	5.5	0.175	0.025	70	22	XDFN-4
NCP717BMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.3	5.5	0.175	0.025	70	22	XDFN-4
NCP717BMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.3	5.5	0.17	0.025	70	22	XDFN-4
NCP717BMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.3	5.5	0.165	0.025	70	22	XDFN-4
NCP717BMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	5.5	0.155	0.025	70	22	XDFN-4
NCP717CMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.3	5.5		0.025	70	22	XDFN-4
NCP717CMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	5.5		0.025	70	22	XDFN-4
NCP717CMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.3	5.5		0.025	70	22	XDFN-4
NCP717CMX190TCG	Pb-free Halide free	Active	Single	Positive	1.9	0.3	5.5		0.025	70	22	XDFN-4
NCP717CMX220TCG	Pb-free Halide free	Active	Single	Positive	2.2	0.3	5.5		0.025	70	22	XDFN-4
NCP717CMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	5.5	0.19	0.025	70	22	XDFN-4
NCP717CMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	5.5	0.175	0.025	70	22	XDFN-4

NCP717CMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.3	5.5	0.175	0.025	70	22	XDFN-4
NCP717CMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.3	5.5	0.17	0.025	70	22	XDFN-4
NCP717CMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.3	5.5	0.165	0.025	70	22	XDFN-4
NCP717CMX320TCG	Pb-free Halide free	Active	Single	Positive	3.2	0.3	5.5	0.165	0.025	70	22	XDFN-4
NCP717CMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	5.5	0.155	0.025	70	22	XDFN-4

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

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