

Product Overview

NCP59800: CMOS Linear Voltage Regulator with Enable, 1 A

For complete documentation, see the data sheet.

The NCP59800 is a family of 1 A low-dropout linear regulators (LDOs) offering high power-supply ripple rejection (PSRR) and ultra-low output noise. This series of LDOs uses an advanced BiCMOS process to achieve very good electrical performance. It is an ideal choice for noise sensitive Analog RF Front-Ends used in Telecom Equipment. The NCP59800 is available in the 3 mm x 3 mm DFN8 package.

Features

- 2.2 V to 6.0 V Operating Input Voltage Range
- Low Quiescent Current of Typ. 60 μ A
- Very Low Dropout: 200 mV Typ. at $I_{out} = 1$ A ($V_{out} = 2.5$ V)
- Very Low Noise, 15 μ V_{rms}/V typically
- Adjustable Soft-Start
- $\pm 2.5\%$ Accuracy over the Line. Load and temperature range
- Thermal Shutdown and Current Limit Protections
- Stable with 4.7 μ F Ceramic Output Capacitor

Applications

- Telecom Infrastructure
- Audio
- High-Speed I/F (PLL/VCO)

Benefits

- Suitable for Li-ion battery or post regulation application
- Extended Battery Life
- Extended Battery Range
- Good for noise sensitive applications
- Limits the In-Rush Current
- High output voltage precision
- Protects product and system from damage
- Saves PCB space and system cost

End Products

- Telecom equipment
- Industrial Control
- Networking equipment

Part Electrical Specifications

Product	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 (μ V _{rms})	Enable	Power Good	Package Type
NCP59800BMNADJTAG	Pb-free Halide free	Active	Single	Positive	Adjustable	1	2.2	6	0.2	0.06	63	15	Yes	No	DFN-8
NCP59800BMNADJTBB	Pb-free Halide free	Active	Single	Positive	Adjustable	1	2.2	6	0.2	0.06	63	15	Yes	No	DFN-8

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

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