Product Overview

NCP786L: Linear Voltage Regulator, 5 mA, 450 V, Ultra-Low Iq, High PSRR

For complete documentation, see the data sheet.

The NCP786L is a high-performance 5 mA low dropout (LDO) linear voltage regulator, offering a very wide operating input voltage range of up to 450 V DC operating and 700 V DC maximum. It is an ideal choice for high input voltage applications such as industrial and home automation, smart metering, home appliances. The NCP786L offers ±5% of output voltage accuracy, extremely high power supply rejection ratio and ultra low quiescent current of 10 μA typical. The NCP786L is very well suited for harsh environmental conditions. The NCP786L is offered as adjustable voltage regulator with output voltages from 1.27 V to 15 V. SOT-223 package offers acceptable thermal performance and small PCB size.

Features

- Operating Input Voltage: Up to 450 VDC
- PSRR: 70 dB at 60 Hz
- Quiescent Current: 10 μA typical
- SOT-223 Package

Benefits

- Allows for direct AC mains connection
- Effectively reduces the input ripple
- Greatly reduces the no-load power consumption
- Ideally suited for space constrained applications

Applications

- Industrial, Home Automation, White Goods, Lighting
- Low-Power MCU Applications Power Supply
- Smaller Size, No-Load Efficient replacement for Capacitive Dropper

End Products

- Circuit Breakers
- Smoke Sensors
- Home Appliances
- Smart Meters

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	Application	Package Type
NCP786LSTADJT3G	0.3296	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.275	0.005	55	450		0.01	70	146	No	No	Industrial	SOT-223-4 / TO-261-4D

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

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