

## 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  $\pm 5\%$  of output voltage accuracy, extremely high power supply rejection ratio and ultra low quiescent current of 10  $\mu\text{A}$  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  $\mu\text{A}$  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 ( $\mu\text{V}_{\text{rms}}$ )	Enable	PowerGood	Application	Package Type
NCP786LSTADJT3G	0.4395	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](http://www.onsemi.com).

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