



## Product Overview

### NCV33375: 300 mA, 1.8 V, $\pm 1\%$ Low Dropout Linear Voltage Regulator

For complete documentation, see the data sheet

#### Product Description

The MC33375 series are micropower low dropout (LDO) linear voltage regulators available in a wide variety of output voltages as well as packages, SOT-223, and SOP-8 surface mount packages. These devices feature a very low quiescent current and are capable of supplying output currents up to 300mA. Internal current and thermal limiting protection are provided by the presence of a short circuit at the output and an internal thermal shutdown circuit.

The MC33375 has a control pin that allows a logic level signal to turn-off or turn-on the regulator output.

Due to the low input-to-output voltage differential and bias current specifications, these devices are ideally suited for battery powered computer, consumer, and industrial equipment where an extension of useful battery life is desirable.

#### Features

- Low Quiescent Current (0.3  $\mu\text{A}$  in OFF mode; 125  $\mu\text{A}$  in ON mode)
- Low Input-to-Output Voltage Differential of 25 mV at  $I_O = 10 \text{ mA}$ , and 260 mV at  $I_O = 300 \text{ mA}$
- Extremely Tight Line and Load Regulation
- Stable with Output Capacitance of only 0.33  $\mu\text{F}$  for 2.5 V Output Voltage
- Internal Current and Thermal Limiting
- Logic Level ON/OFF Control

#### Applications

- Battery Powered Consumer Products
- HandHeld Instruments
- Camcorders and Cameras

#### End Products

- Camcorders and Cameras

#### 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 ( $\mu\text{V}_{\text{rms}}$ )	Package Type
NCV33375D-2.5R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.3	13	0.26	0.125		46	SOIC-8
NCV33375D-3.3R2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.3	13	0.26	0.125		46	SOIC-8
NCV33375ST1.8T3G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.3	13	0.26	0.125		46	SOT-223-4 / TO-261-4
NCV33375ST3.3T3G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.3	13	0.26	0.125		46	SOT-223-4 / TO-261-4

