

Current Regulator Diode 400mW 3-Pin TO-46 Bulk

Manufacturer:	Texas Instruments, Inc
Package/Case:	TO-46
Product Type:	Power Management ICs
Lifecycle:	Active



Images are for reference only

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General Description

The LM134/LM234/LM334 are 3-terminal adjustable current sources featuring 10,000:1 range in operating current, excellent current regulation and a wide dynamic voltage range of 1V to 40V. Current is established with one external resistor and no other parts are required. Initial current accuracy is $\pm 3\%$. The LM134/LM234/LM334 are true floating current sources with no separate power supply connections. In addition, reverse applied voltages of up to 20V will draw only a few dozen microamperes of current, allowing the devices to act as both a rectifier and current source in AC applications.

The sense voltage used to establish operating current in the LM134 is 64mV at 25°C and is directly proportional to absolute temperature (°K). The simplest one external resistor connection, then, generates a current with $\approx +0.33\%/^{\circ}\text{C}$ temperature dependence. Zero drift operation can be obtained by adding one extra resistor and a diode.

Applications for the current sources include bias networks, surge protection, low power reference, ramp generation, LED driver, and temperature sensing.

The LM234-3 and LM234-6 are specified as true temperature sensors with ensured initial accuracy of $\pm 3^{\circ}\text{C}$ and $\pm 6^{\circ}\text{C}$, respectively. These devices are ideal in remote sense applications because series resistance in long wire runs does not affect accuracy. In addition, only 2 wires are required.

The LM134 is specified over a temperature range of 55°C to +125°C, the LM234 from 25°C to +100°C and the LM334 from 0°C to +70°C. These devices are available in TO hermetic, TO-92 and SOIC-8 plastic packages.

Key Features

Operates From 1V to 40V

0.02%/V Current Regulation

Programmable From 1 μ A to 10mA

True 2-Terminal Operation

Available as Fully Specified Temperature Sensor

\pm 3% Initial Accuracy

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The LM134 is specified over a temperature range of -55° C to $+125^{\circ}$ C, the LM234 from -25° C to $+100^{\circ}$ C and the LM334 from 0° C to $+70^{\circ}$ C. These devices are available in TO hermetic, TO-92 and SOIC-8 plastic packages.



Recommended For You

LM2637M

Texas Instruments, Inc

SOP24

LM5116MH

Texas Instruments, Inc

TSSOP20

LM234Z-3

Texas Instruments, Inc

TO-92

LM27761DSGR

Texas Instruments, Inc
WS0N8

LM74700QDBVRQ1

Texas Instruments, Inc
SOT23-6

LM2991S

Texas Instruments, Inc
TO-263

LM74800QDRRRQ1

Texas Instruments, Inc
WS0N-12

LMR14030SDDAR

Texas Instruments, Inc
SOP8

LM2940CT-12

Texas Instruments, Inc
TO-220

LM536035QPWPTQ1

Texas Instruments, Inc
HTSSOP-16

LM5575MH

Texas Instruments, Inc
TSSOP16

LM536013QDSXTQ1

Texas Instruments, Inc
WS0N-10

LM5160QPWPRQ1

Texas Instruments, Inc
HTSSOP14

LM5576MH

Texas Instruments, Inc
TSSOP20

LMQ61460AFSQRJRRQ1

Texas Instruments, Inc
VQFN-14