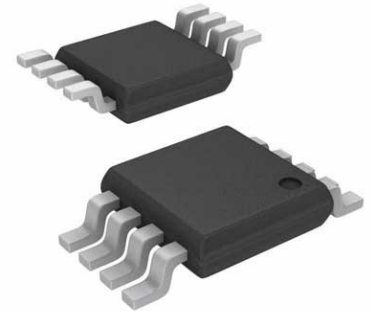


SP Amp Current Sense Amp Single 36V Automotive 8-Pin VSSOP T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: MSOP8

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The INA225 is a voltage-output, current-sense amplifier that senses drops across current-sensing resistors at common-mode voltages that can vary from 0 V to 36 V, independent of the supply voltage. The device is a bidirectional, current-shunt monitor that allows an external reference to be used to measure current flowing in both directions across a current-sensing resistor.

Four discrete gain levels are selectable using the two gain-select terminals (GS0 and GS1) to program gains of 25 V/V, 50 V/V, 100 V/V, and 200 V/V. The low-offset, zero-drift architecture and precision gain values enable current-sensing with maximum drops across the shunt as low as 10 mV of full-scale while maintaining very high accuracy measurements over the entire operating temperature range.

The device operates from a single +2.7-V to +36-V power supply, drawing a maximum of 350 μ A of supply current. The device is specified over the extended operating temperature range (-40°C to $+125^{\circ}\text{C}$), and is offered in an MSOP-8 package.

Key Features

AEC-Q100 Qualified:

Temperature Grade 1: -40°C to $+125^{\circ}\text{C}$

HBM ESD Classification 2

CDM ESD Classification C4B

Wide Common-Mode Range: 0 V to 36 V

Offset Voltage: $\pm 150\ \mu\text{V}$ (Max, All Gains)

Offset Voltage Drift: $0.5\ \mu\text{V}/^{\circ}\text{C}$ (Max)

Gain Accuracy, Over Temperature (Max):
25 V/V, 50 V/V: $\pm 0.15\%$

100 V/V: $\pm 0.2\%$

200 V/V: $\pm 0.3\%$

10-ppm/ $^{\circ}\text{C}$ Gain Drift

Bandwidth: 250 kHz (Gain = 25 V/V)

Programmable Gains:

G1 = 25 V/V

G2 = 50 V/V

G3 = 100 V/V

G4 = 200 V/V

Quiescent Current: 350 μA (Max)

Package: VSSOP-8

Recommended For You

INA823DT

Texas Instruments, Inc

SOP8

INA333AIDRGR

Texas Instruments, Inc

SON-8

INA101AM

Texas Instruments, Inc

CAN10

INA141UA

Texas Instruments, Inc

SOP8

INA111AP

Texas Instruments, Inc

DIP8

INA101AG

Texas Instruments, Inc

DIP

INA116UA

Texas Instruments, Inc

SOP16

INA333AIDRGT

Texas Instruments, Inc

SON8

INA101SM

Texas Instruments, Inc

CAN10

INA129PA

Texas Instruments, Inc

DIP8

INA101CM

Texas Instruments, Inc

CAN10

INA141PA

Texas Instruments, Inc

DIP

TLV2254IN

Texas Instruments, Inc

DIP-14

TLV2464IN

Texas Instruments, Inc

DIP14

INA2126UA

Texas Instruments, Inc

SOP16