

A 1 μ A, 200 μ V_{OS} SOT23 Precision Current-Sense Amplifier

FEATURES

- ◆ Improved Electrical Performance over the MAX9938 and the MAX9634
- ◆ Ultra-Low Supply Current: 1 μ A
- ◆ Wide Input Common Mode Range: +2V to +25V
- ◆ Low Input Offset Voltage: 200 μ V (max)
- ◆ Low Gain Error: 0.5% (max)
- ◆ Voltage Output
- ◆ Four Gain Options Available:
 - TS1102-25: Gain = 25V/V
 - TS1102-50: Gain = 50V/V
 - TS1102-100: Gain = 100V/V
 - TS1102-200: Gain = 200V/V
- ◆ 5-Pin SOT23 Packaging

APPLICATIONS

Notebook Computers
 Current-Shunt Measurement
 Power Management Systems
 Battery Monitoring
 Motor Control
 Load Protection
 Smart Battery Packs/Chargers

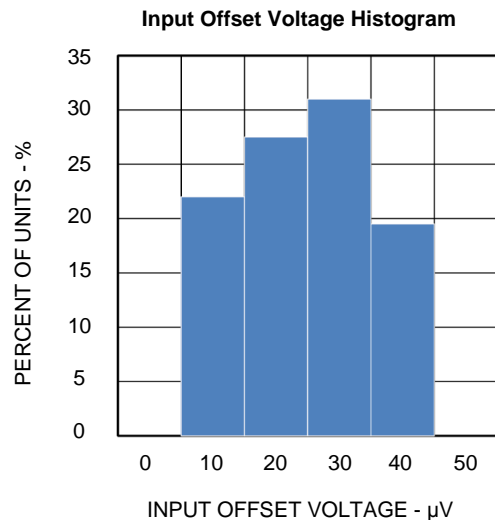
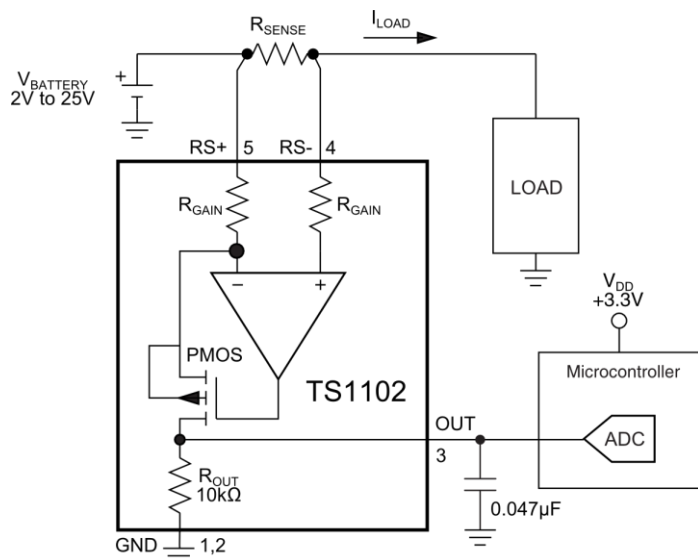
DESCRIPTION

The voltage-output TS1102 current-sense amplifiers are form-factor identical and electrical improvements to the MAX9938 and the MAX9634 current-sense amplifiers. The TS1102 is the latest addition to the TS1100 family of uni-directional current-sense amplifiers. Consuming a very low 1 μ A supply current, the TS1102 high-side current-sense amplifiers combine a 200- μ V (max) V_{OS} and a 0.5% (max) gain error for cost-sensitive applications. For all high-side current-sensing applications, the TS1102 features a wide input common-mode voltage range from 2V to 25V.

The SOT23 package makes the TS1102 an ideal choice for pcb-area-critical, low-current, high-accuracy current-sense applications in all battery-powered, remote or hand-held portable instruments.

All TS1102s are specified for operation over the -40°C to +105°C extended temperature range.

TYPICAL APPLICATION CIRCUIT



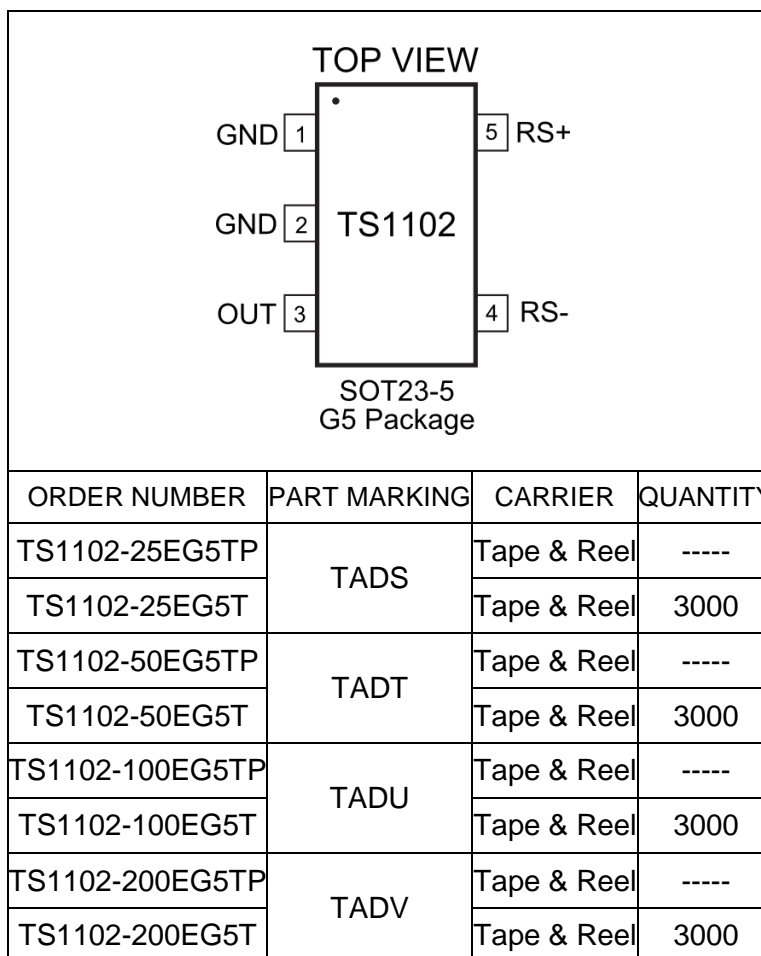
PART	GAIN OPTION
TS1102-25	25 V/V
TS1102-50	50 V/V
TS1102-100	100 V/V
TS1102-200	200 V/V

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TS1102 Product Brief



PACKAGE/ORDERING INFORMATION



Lead-free Program: Touchstone Semiconductor supplies only lead-free packaging.

Consult Touchstone Semiconductor for products specified with wider operating temperature ranges.

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