

Low-Power, Single/Dual-Supply Quad Comparator with Reference

FEATURES

- ◆ Improved Electrical Performance over MAX934
- ◆ Ultra-Low Quiescent Current:
5.1 μ A (max), All Comparators plus Reference
- ◆ Single or Dual Power Supplies:
Single: +2.5V to +11V
Dual: \pm 1.25V to \pm 5.5V
- ◆ Input Voltage Range Includes Negative Supply
- ◆ 7 μ s Propagation Delay
- ◆ Push-pull TTL/CMOS-Compatible Outputs
- ◆ Separate Output GND Pin
- ◆ Crowbar-Current-Free Switching
- ◆ Continuous Source Current Capability: 40mA
- ◆ Internal 1.182V \pm 1% Reference
- ◆ 16-pin Narrow SOIC Package

APPLICATIONS

Threshold Detectors/Discriminators
 Oscillator Circuits
 Window Comparators
 Level Translators
 Battery-Powered Systems

DESCRIPTION

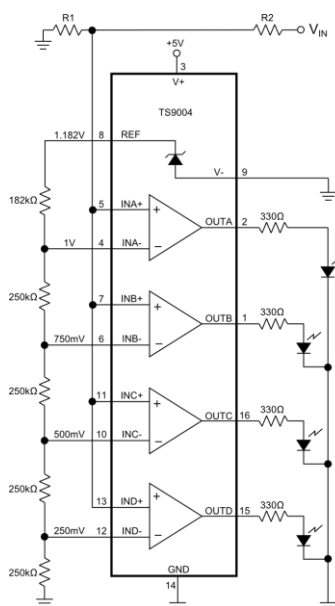
The TS9004 low-voltage, micropower quad analog comparator is form-factor identical to the MAX934 analog comparator with improved electrical specifications. Ideal for 3V or 5V single-supply applications, the TS9004 draws 22% lower supply current with a 50%-better initial accuracy reference voltage. The TS9004 joins Touchstone's TS9001-1/2 and TS9002 analog comparators in the "NanoWatt Analog™" high performance analog integrated circuits portfolio. This quad comparator can operate from single +2.5V to +11V supplies or from \pm 1.25V to \pm 5.5V dual supplies.

The TS9004 exhibits an input voltage range from the negative supply rail to within 1.3V of the positive supply. In addition, its push-pull output stage is TTL/CMOS compatible and capable of sinking and sourcing current. It also incorporates an internal 1.182V \pm 1% voltage reference. A GND connection available at the TS9004's output stage enables TTL compatibility, bipolar-to-single ended conversion, and level-shifting applications.

The TS9004 is fully specified over the -40°C to +85°C temperature range and is available in a 16-pin narrow SOIC package.

TYPICAL APPLICATION CIRCUIT

Using a TS9004 in a 5V Bar-Graph Level Gauge Application

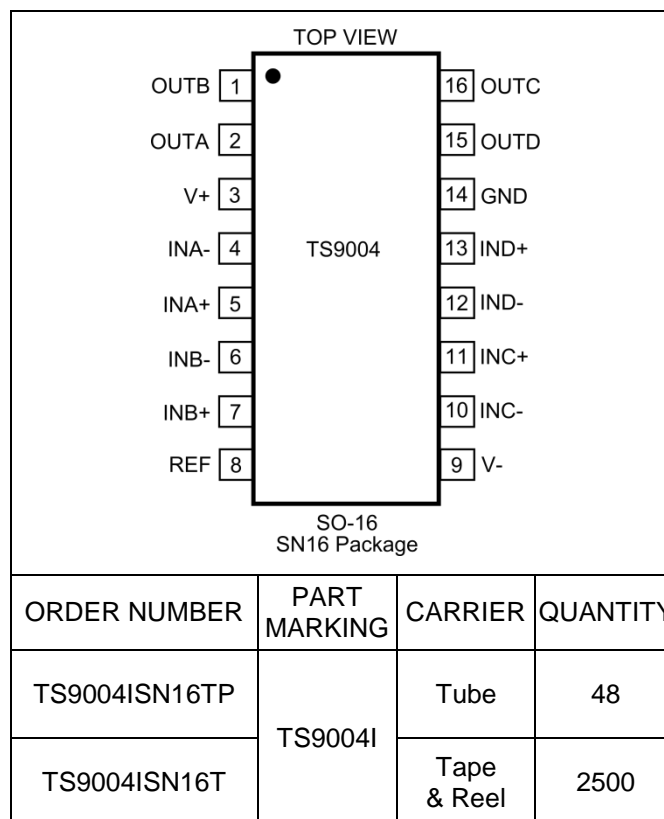


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TS9004 Product Brief



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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