

## ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.  
8/97



# +3V/+5V, High-Speed, Rail-to-Rail, SOT23 Comparators with Shutdown

## General Description

The MAX997/MAX999 are high-speed, low-power voltage comparators available in tiny SOT23 and 8-pin SO packages. They have a 4.5ns propagation delay and consume only 5mA of supply current when operating from a single +2.7V to +5.5V supply. The input common-mode range extends from below ground to above the supply rail, and the output can pull to within 0.5V of the supply rail or GND.

The MAX997/MAX999 have internal hysteresis to minimize output indecision and oscillation during transitions, simplifying use without input resolution degradation. In addition, large input voltage overdrive causes no output phase reversal.

The MAX997/MAX999 consume less than 500µA supply current during shutdown. They are specified and guaranteed over the -40°C to +85°C extended temperature range.

## Features

- ♦ Ultra-Fast 4.5ns Propagation Delay (5mV overdrive)
- ♦ 5mA Supply Current
- ♦ 500µA (max) Shutdown Current
- ♦ Single-Supply Operation down to 2.7V
- ♦ Rail-to-Rail® Input Voltage Range
- ♦ Output Drive to Within 0.5V of Supply Rails
- ♦ CMOS/TTL-Compatible Logic Output
- ♦ No Output Phase Reversal for Overdriven Inputs
- ♦ Internal Hysteresis for Clean Switching
- ♦ Available in Tiny SOT23 Packages

## Applications

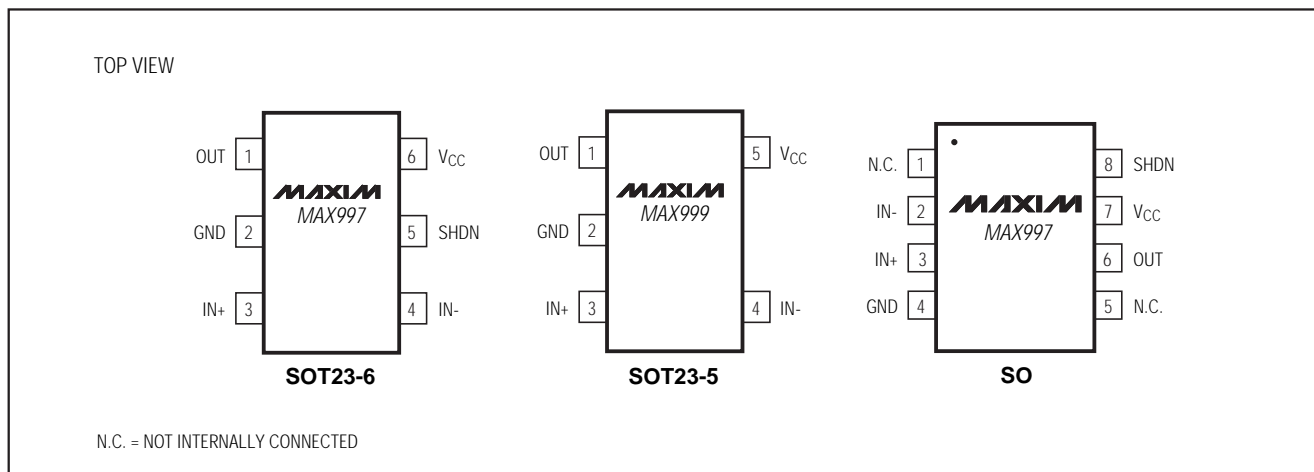
3V/5V Systems  
Battery-Powered Systems  
Threshold Detectors/Discriminators  
Line Receivers  
Zero-Crossing Detectors  
Digital Network Line Receivers  
High-Speed Sampling Circuits

## Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX997ESA	-40°C to +85°C	8 SO
MAX997EUT-T	-40°C to +85°C	SOT23-6
MAX999EUK-T	-40°C to +85°C	SOT23-5

Ordering Information continued on next page..

## Pin Configurations



Rail-to-Rail is a trademark of Nippon Motorola Ltd.



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