

Description

The GM393 consists of two independent precision voltage comparators with an offset voltage specification as low as 2.0 mV max for two comparators which were designed specifically to operate from a single power supply over a wide range of voltages. Operation from split power supplies is also possible and the low power supply current drain is independent of the magnitude of the power supply voltage. These comparators also have a unique characteristic. In that, the input common-mode voltage range includes ground, even though operated from a single power supply voltage.

Application areas include limit comparators, simple analog to digital converters; pulse, square wave and time delay generators; wide range VCO; MOS clock timers; multivibrators and high voltage digital logic gates. The GM393 are designed to directly interface with TTL and CMOS. When operated from both plus and minus power supplies, the GM393 will directly interface with MOS logic, where their low power drain is a distinct advantage over standard comparators.

The GM393 is available in DIP-8 and SOP-8 packages.

Application

High precision comparators

Simple Analog to Digital Converters

Pulse, Square Wave Generators

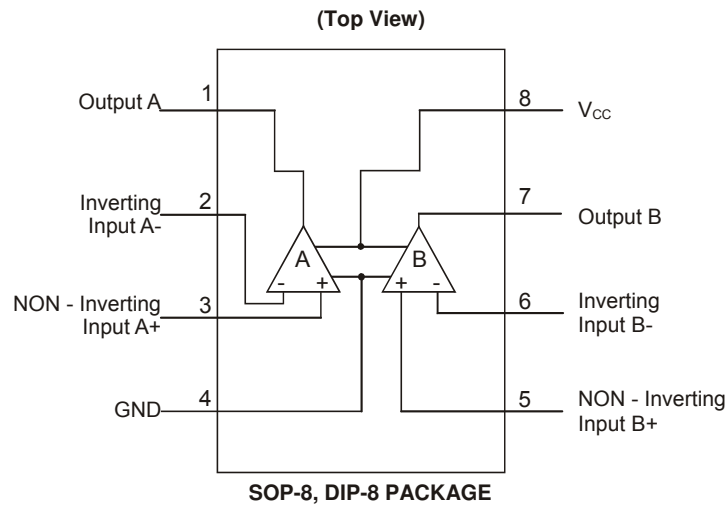
Wide Range VCO

MOS Clock Timer

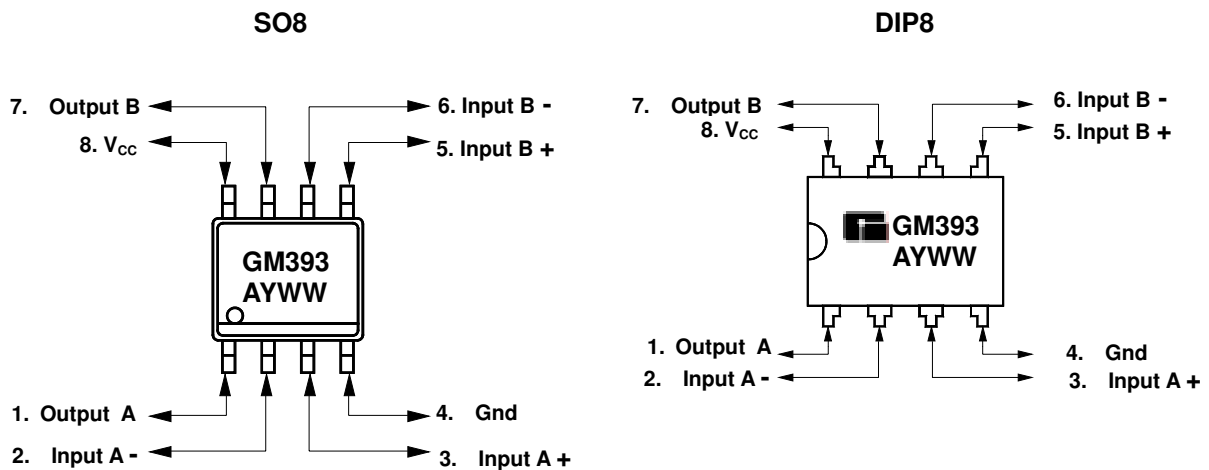
Features

- ◆ Single- supply Range: $\pm 1.0V$ to $\pm 18V$
- ◆ Wide supply voltage range: $\pm 2.0V$ to $\pm 36V$
- ◆ Very low supply current drain (0.4 mA) - independent of supply voltage
- ◆ Low input biasing current: 25 nA
- ◆ Low input offset current: ± 5 nA
- ◆ Maximum offset voltage: ± 3 mV
- ◆ Input common-mode voltage range includes ground
- ◆ Differential input voltage range equal to the power supply voltage
- ◆ Low output saturation voltage: 250 mV at 4 mA
- ◆ Output voltage compatible with TTL, DTL, ECL, MOS and CMOS logic systems

Connecting Diagram



Marking Information and Pin Configurations (Top View)



A: Assembly / Test site code
 Y: Year
 WW: Week

Ordering Information

Ordering Number	Package	Shipping
GM393D8T	DIP-8	60 Units / Tube
GM393S8T	SOP-8	100 Units / Tube
GM393S8R	SOP-8	2,500 Units / Tape & Reel