

### LOW POWER LOW OFFSET VOLTAGE DUAL COMPARATORS

AZ393/393C

#### **Description**

The AZ393/393C series consists of two independent precision voltage comparators with an offset voltage specification as low as 1mV. The input common mode voltage range of these comparators includes ground, even when operated from a single power supply voltage. 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.

The AZ393/393C series is designed to directly interface with TTL and CMOS.

#### **Features**

Wide Supply Voltage Range
Single Supply: 2.0V to 18V
Dual Supplies: ±1.0V to ±9V

Very Low Supply Current Drain: 0.4mA

- Independent of Supply Voltage

• Low Input Bias Current: 25nA

• Low Input Offset Current: ±5nA

• Low Input Offset Voltage: 1mV Typical

Input Common Mode Voltage Range Includes Ground

 Differential Input Voltage Range Equals to the Power Supply Voltage

Low Output Saturation Voltage: 250mV at 4mA

Open Collector Output

#### **Parametric Table**

Supply Voltage (V)	20
Supply Current (mA) (18V, 15kΩ)	0.4
Differential Input Voltage (V)	20
Input offset Voltage (mV)	1.0
Input offset Current (nA)	5.0
Large Signal Response Time (ns) $(5.1k\Omega)$	300
Output Sink Current (mA)	16
Saturation Voltage (mV)	250
Voltage Gain (V/mV)	200

#### **Benefits**

- · Easier to Use
- Very Competitive Price

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### **Additional Available Materials**

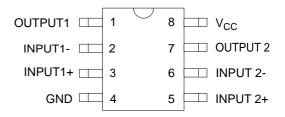
- Samples
- Datasheet

## **Applications**

- Battery Charger
- · Cordless Telephone
- Switching Power Supply
- DC-DC Module
- PC Motherboard
- Communication Equipment

## **Pin Configuration**

#### SOIC-8/DIP-8





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# **Ordering Information Example**

Package	Input Offset Voltage		Part Number		Marking ID		- Packing Type
			Tin Lead	Lead Free	Tin Lead	Lead Free	racking Type
SOIC-8	Maximum Value	5mV	AZ393M	AZ393M-E1	AZ393M	AZ393M-E1	Tube
		5mV	AZ393MTR	AZ393MTR-E1	AZ393M	AZ393M-E1	Tape & Reel
		2mV	AZ393CM	AZ393CM-E1	393CM	393CM-E1	Tube
		2mV	AZ393CMTR	AZ393CMTR-	393CM	393CM-E1	Tape & Reel
DIP-8	Maximum Value	5mV	AZ393P	AZ393P-E1	AZ393P	AZ393P-E1	Tube
		2mV	AZ393CP	AZ393CP-E1	AZ393CP	AZ393CP-E1	Tube

Detailed information please refer to the relevant datasheet.

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