

**LOW POWER LOW OFFSET VOLTAGE DUAL COMPARATORS****AS393/393A****Description**

The AS393/393A consist of two independent precision voltage comparators with a typical offset voltage of 1.0mV and high gain. They are specifically designed to operate from a single power supply over wide range of voltages. Operation from split power supply is also possible and the low power supply current drain is independent of the magnitude of the power supply voltage.

The AS393/393A series are compatible with industry standard 393. AS393A has more stringent input offset voltage than AS393.

Features

- Wide Supply Voltage Range
 - Single Supply: 2.0V to 36V
 - Dual Supplies: $\pm 1.0\text{V}$ to $\pm 18\text{V}$
- Low Supply Current Drain: 0.6mA
- Low Input Bias Current: 25nA (Typical)
- Low Input Offset Current: $\pm 5.0\text{nA}$ (Typical)
- Low Input Offset Voltage: 1.0mV (Typical)
- Input Common Mode Voltage Range Includes Ground
- Differential Input Voltage Range Equals to the Power Supply Voltage
- Low Output Saturation Voltage: 200mV at 4mA
- Open Collector Output

Applications

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

Benefits

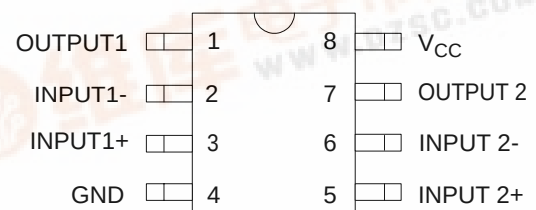
- Easier to Use
- Very Competitive Price

Parametric Table

Supply Voltage Range (V)		2 to 36
		± 1.0 to ± 18
Input Offset Voltage (Typ/Max) (mV)	AS393	1.0/5.0
	AS393A	1.0/3.0
Supply Current ($V_{CC}=5\text{V}$) (mA)		0.6
Differential Input Voltage (V)		40
Input Offset Current (nA)		5
Large Signal Response Time ($R_L=5.1\text{k}\Omega$) (ns)		200
Output Sink Current (mA)		16
Saturation Voltage (mV)		200
Voltage Gain (V/mV)		200

Additional Available Materials

- Samples
- Datasheet
- Reliability Report
- ESD Report

Pin Configuration**SOIC-8/DIP-8/TSSOP-8**



Advanced Analog Circuits

Product Brief

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AS393/393A

Ordering Information Example

Package	Input Offset Voltage		Part Number		Marking ID	
			Tin Lead	Lead Free	Tin Lead	Lead Free
SOIC-8	-40 to 85°C	AS393M	AS393M-E1	AS393M	AS393M-E1	Tube
		AS393MTR	AS393MTR-E1	AS393M	AS393M-E1	Tape & Reel
			AS393AM-E1		AS393AM-E1	Tube
			AS393AMTR-E1		AS393AM-E1	Tape & Reel
DIP-8		AS393P	AS393P-E1	AS393P	AS393P-E1	Tube
			AS393AP-E1		AS393AP-E1	Tube
TSSOP-8			AS393G-E1		EG3C	Tube
			AS393GTR-E1		EG3C	Tape & Reel

Detailed information please refer to the relevant datasheet.

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