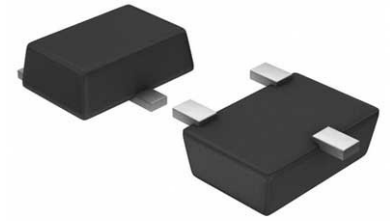



## Comparator Single R-R O/P $\pm 18V/36V$ Automotive 5-Pin SOT-23 T/R



Images are for reference only

[Inquiry](#)

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOT23-5
<b>Product Type:</b>	Linear Displacement Sensors
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active

### General Description

The TL331B-Q1 and TL391B-Q1 devices are the next generation versions of the industry-standard TL331-Q1 comparator. These next generation devices provide outstanding value for cost-sensitive applications, with features including lower offset voltage, higher supply voltage capability, lower supply current, lower input bias current, lower propagation delay, dedicated ESD protection cells with improved negative input voltage handling. The TL331B-Q1 can drop-in replace both the TL331-Q1 "I" and "Q" versions. The TL391B-Q1 provides an alternate pinout of the TL331B-Q1.

This device consists of a single voltage comparator designed to operate from a single power supply over a wide range of voltages. Operation from dual supplies also is possible if the difference between the two supplies is 2 V to 36 V and  $V_{CC}$  is at least 1.5 V more positive than the input common-mode voltage. Current drain is independent of the supply voltage. To achieve wired-AND relationships, one can connect the output to other open-collector outputs.

## Key Features

Qualified for automotive applications

AEC-Q100 qualified with the following results:

Device temperature grade 1: -40°C to 125°C ambient operating temperature range (B and Q versions)

Device temperature grade 3: -40°C to 85°C ambient operating temperature range (I version)

Device HBM ESD classification level 2

Device CDM ESD classification level C5

NEW TL331B-Q1 and TL391B-Q1

Wide range of supply voltage, 2 V to 36 V

Low supply-current drain independent of supply voltage: 0.43 mA Typ (B version)

Low input bias current, 3.5 nA typ (B version)

Low input offset voltage, 0.37 mV typ (B Version)

Differential input voltage range equal to maximum-rated supply voltage, ±36 V

Input range includes ground

TL391B-Q1 provides an alternate pinout

Output compatible With TTL, MOS and CMOS

## Recommended For You

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### **TLC27M2CP**

Texas Instruments, Inc

DIP8

### **TLV3501AIDR**

Texas Instruments, Inc

SOP8

### **TL071ACP**

Texas Instruments, Inc

DIP-8

### **TL062CDR**

Texas Instruments, Inc

SOP8

### **TLE2142IP**

Texas Instruments, Inc

DIP8

### **TLC272AID**

Texas Instruments, Inc

SOP-8

### **TLV3502AQDCNRQ1**

Texas Instruments, Inc

SOT23-8

### **TL084CD**

Texas Instruments, Inc

SOP14

### **TLV2711DBVR**

Texas Instruments, Inc

SOT23-5

### **TLC074CD**

Texas Instruments, Inc

SOP14

### **TLC2272ACD**

Texas Instruments, Inc

SOP-8

### **TLC2272AIDR**

Texas Instruments, Inc

SOP8

**TLV2462ID**

Texas Instruments, Inc

SOP-8

**TLV2471QDBVRQ1**

Texas Instruments, Inc

SOT23-5

**TLV2381IDBVR**

Texas Instruments, Inc

SOT23-5