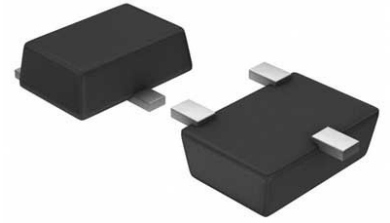


## V-Ref Adjustable 2.5V to 36V 100mA Automotive 3-Pin SOT-23 T/R



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOT23-3

**Product Type:** Power Management ICs

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

### General Description

The ATL431 and ATL432 are three-terminal adjustable shunt regulators, with specified thermal stability over applicable automotive, commercial, and industrial temperature ranges. The output voltage can be set to any value between  $V_{ref}$  (approximately 2.5 V) and 36 V, with two external resistors. These devices have a typical output impedance of 0.05  $\Omega$ . Active output circuitry provides a very sharp turn-on characteristic, making these devices excellent replacements for Zener diodes in many applications, such as onboard regulation, adjustable power supplies, and switching power supplies.

The ATL43x has > 20x improvement cathode current range over its TL43x predecessor. It also is stable with a wider range of load capacitance types and values.

ATL431 and ATL432 are the exact same parts but with different pinouts and order numbers. The ATL43x is offered in two grades, with initial tolerances (at 25°C) of 0.5%, 1%, for the B and A grade, respectively. In addition, low output drift vs temperature ensures consistent voltage regulation over the entire temperature range.

The ATL43xxI devices are characterized for operation from -40°C to +85°C, and the ATL43xxQ devices are characterized for operation from -40°C to +125°C.

## Key Features

Adjustable Regulated Output of 2.5 V to 36 V

Very-Low Operating Current

$I_{KA(\min)} = 35 \mu\text{A}$  (Max)

$I_{REF} = 150 \text{ nA}$  (Max)

Internally Compensated for Stability

Stable With No Capacitive Load

Reference Voltage Tolerances at 25°C

0.5% for B Grade

1% for A Grade

Typical Temperature Drift

5 mV (–40°C to +85°C); I Version

6 mV (–40°C to +125°C); Q Version

Extended Cathode Current Range 35  $\mu\text{A}$  to 100 mA

Low Output Impedance of 0.3  $\Omega$  (Max)

## Recommended For You

---

### **TPS2420RSAT**

Texas Instruments, Inc

QFN16

### **TPS65020RHAT**

Texas Instruments, Inc

QFN

### **TPS61085ATDGKRQ1**

Texas Instruments, Inc

VSSOP-8

### **TPS62112RSAT**

Texas Instruments, Inc

QFN-16

### **BQ76PL536ATPAPTQ1**

Texas Instruments, Inc

HTQFP64

### **BQ76PL536ATPAPRQ1**

Texas Instruments, Inc

HTQFP64

### **BQ76PL455ATPFCRQ1**

Texas Instruments, Inc

TQFP80

### **BQ76PL455ATPFCTQ1**

Texas Instruments, Inc

TQFP80

### **ATL431LIAQDBZRQ1**

Texas Instruments, Inc

SOT-23

### **LMS164QDDATQ1**

Texas Instruments, Inc

HSOIC-8

### **ATL431LIBQDBZRQ1**

Texas Instruments, Inc

SOT23-3

### **ATL431BIDBZR**

Texas Instruments, Inc

SOT23-3

### **ATL431AIDBZR**

Texas Instruments, Inc

SOT23-3

### **ATL431AQDBZR**

Texas Instruments, Inc

SOT23-3

### **ATL431BQDBZR**

Texas Instruments, Inc

SOT23