
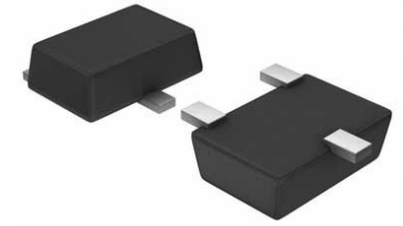


## V-Ref Adjustable 2.5V to 36V 15mA Automotive 3-Pin SOT-23

T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOT23-3
<b>Product Type:</b>	Power Management ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The ATL43xLI-Q1 is a three-terminal adjustable shunt regulator, with specified thermal stability over applicable automotive, commercial, and military temperature ranges. Its output voltage can be set to any value between  $V_{ref}$  (approximately 2.5 V) and 36 V with two external resistors. The device has a typical output impedance of 0.3  $\Omega$ . Its active output circuitry provides a very sharp turn-on characteristic, making it an excellent replacement for Zener diodes in many applications, such as onboard regulation, adjustable power supplies, and switching power supplies. This device is a pin-to-pin alternative to the TL431LI-Q1 and TL432LI-Q1, with lower minimum operating current to help reduce system power consumption. The ATL432LI-Q1 has exactly the same functionality and electrical specifications as the ATL431LI-Q1, but has a different pinout for the DBZ package.

The ATL431LI-Q1 is offered in two grades, with initial tolerances (at 25°C) of 0.5%, and 1%, for the B and A grade, respectively. The ATL43xLI-Q1 is characterized for operation from -40°C to +125°C, and its low output drift versus temperature ensures good stability over the entire temperature range.

## Key Features

Qualified for automotive applications

AEC-Q100 qualified with the following results:

Device temperature grade 1:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  ambient operating temperature

Reference voltage tolerance at  $25^{\circ}\text{C}$

0.5% (B grade)

1% (A grade)

Minimum typical output voltage: 2.5 V

Adjustable output voltage:  $V_{\text{ref}}$  to 36 V

Operation from  $40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

27 mV maximum temperature drift

0.3- $\Omega$  typical output impedance

Sink-current capability

$I_{\text{min}} = 0.08 \text{ mA}$  (max)

$I_{\text{KA}} = 15 \text{ mA}$  (max)

Reference input current  $I_{\text{REF}}: 0.4 \mu\text{A}$  (max)

Deviation of reference input current over temperature,  $I_{\text{I(dev)}}: 0.3 \mu\text{A}$  (max)

## Recommended For You

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### 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

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SOT-23

### LM5164QDDATQ1

Texas Instruments, Inc

HSOIC-8

### ATL431LIBQDBZRQ1

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### ATL431BIDBZR

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SOT23-3

**ATL431AIDBZR**

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SOT23-3

**ATL431AQDBZR**

Texas Instruments, Inc

SOT23-3

**ATL431BQDBZR**

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SOT23