

V-Ref Adjustable 2.495V to 36V 100mA Automotive 3-Pin SOT-23 T/R

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| Manufacturer: | Texas Instruments, Inc | TL431BQDBZRQ1 Image |
| Package/Case: | SOT23-3 | Images are for reference only |
| Product Type: | Power Management ICs | Inquiry |
| RoHS: | RoHS Compliant/Lead free  | |
| Lifecycle: | Active | |

General Description

The TL431LI-Q1 / TL432LI-Q1 are pin-to-pin alternatives to TL431-Q1 / TL432-Q1. TL43xLI-Q1 offers better stability, lower temperature drift (VI(dev)), and lower reference current (Iref) for improved system accuracy.

The TL431-Q1 is a three-pin adjustable shunt regulator with specified thermal stability over applicable automotive temperature ranges. The output voltage can be set to any value from V_{REF} (approximately 2.5 V) to 36 V, with two external resistors (see Figure 28). This device has a typical output impedance of 0.2 Ω . Active output circuitry provides a sharp turnon characteristic, making this device an excellent replacement for Zener diodes in many applications, such as onboard regulation, adjustable power supplies, and switching power supplies.

The TL432-Q1 has exactly the same functionality and electrical specifications as the TL431-Q1 device, but has a different pinout for the DBZ package.

Key Features

Qualified for automotive applications

AEC-Q100 test guidance with the following:

Device temperature grade 1: -40°C to 125°C ambient operating temperature range

Reference voltage tolerance at 25°C:

1% (A Grade)

0.5% (B Grade)

Typical temperature drift:

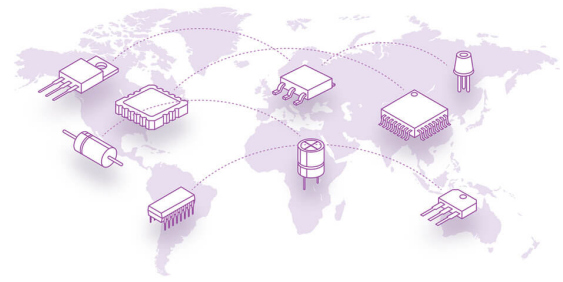
14 mV (Q Temp)

Low output noise

0.2- Ω Typical output impedance

Sink-current capability: 1 mA to 100 mA

Adjustable output voltage: V_{REF} to 36 V



Recommended For You

TL2843P

Texas Instruments, Inc

DIP8

TL431CP

Texas Instruments, Inc

DIP8

TL7705ACDR

Texas Instruments, Inc

SOP8

TL3843P

Texas Instruments, Inc

DIP8

TL497ACN

Texas Instruments, Inc

DIP14

TL3845P

Texas Instruments, Inc

DIP8

TL494CD

Texas Instruments, Inc

SOP-16

TL431HDBVR

Texas Instruments, Inc

SOT23-5

TL494CN

Texas Instruments, Inc

DIP

TL431CDBVR

Texas Instruments, Inc

SOT23-5

TL7705ACP

Texas Instruments, Inc

DIP8

TL3842P

Texas Instruments, Inc

DIP8

TLV73325PDBVT

Texas Instruments, Inc

SOT23-5

TLV73333PDBVR

Texas Instruments, Inc

SOT23-5

TL431BIDBZT

Texas Instruments, Inc

SOT23-3