

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



Images are for reference only

[Inquiry](#)

Manufacturer: [Nexperia Semiconductor \(NXP\)](#)

Package/Case: SOT23-3

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The TL431LI / TL432LI are pin-to-pin alternatives to TL431 / TL432. TL43xLI offers better stability, lower temperature drift ($V_{I(dev)}$), and lower reference current (I_{ref}) for improved system accuracy.

The TL431 and TL432 devices are three-terminal adjustable shunt regulators, with specified thermal stability over applicable automotive, commercial, and military 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 0.2 Ω . 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 TL432 device has exactly the same functionality and electrical specifications as the TL431 device, but has different pinouts for the DBV, DBZ, and PK packages. Both the TL431 and TL432 devices are offered in three grades, with initial tolerances (at 25°C) of 0.5%, 1%, and 2%, for the B, A, and standard grade, respectively. In addition, low output drift versus temperature ensures good stability over the entire temperature range.

The TL43xxC devices are characterized for operation from 0°C to 70°C, the TL43xxI devices are characterized for operation from -40°C to 85°C, and the TL43xxQ devices are characterized for operation from -40°C to 125°C.

Key Features

Enhanced stability area with a very low load capacity requirement

Programmable output voltage up to 36V

6mV (in a range of 0 up to 70 °C) Typical temperature drift

Low output noise

0.2R Typical output impedance

1 to 100mA Sink current capability



Recommended For You

TL431ACDBZR

Nexperia Semiconductor (NXP)

SOT23-3

TL431BQDBZR

Nexperia Semiconductor (NXP)

SOT23-3

TL431IDBZR

Nexperia Semiconductor (NXP)

SOT23-3

TL431BCDBZR

Nexperia Semiconductor (NXP)

SOT23-3

TL431BIDBZR

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SOT-23

TL431AQDBZR

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