


## V-Ref Adjustable 2.495V to 36V 100mA 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 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  $\Omega$ . 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 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

Reference voltage tolerance at 25°C  
0.5% (B grade)

1% (A grade)

2% (Standard grade)

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

Operation from 40°C to 125°C

Typical temperature drift (TL43xB)  
6 mV (C temp)

14 mV (I temp, Q temp)

Low Output Noise

0.2-Ω Typical output impedance

Sink-current capability: 1 mA to 100 mA



## 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

**TL431CPSR**

Texas Instruments, Inc  
SOP-8