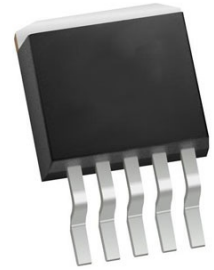


LDO Regulator Pos 1.21V to 20V 1.5A Automotive 6-Pin(5+Tab) DDPAK T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: TO263-5

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The TL1963A-Q1 device is a low-dropout (LDO) regulator optimized for fast transient response. The device can supply 1.5 A of output current with a dropout voltage of 340 mV. Operating quiescent current is 1 mA, dropping to less than 1 μ A in shutdown. Quiescent current is well controlled; it does not rise in dropout as it does with many other regulators. In addition to fast transient response, the TL1963A-Q1 regulators have very low output noise, which makes them ideal for sensitive RF supply applications.

Output voltage range is from 1.21 V to 20 V. The TL1963A-Q1 regulators are stable with output capacitors as low as 10 μ F. Small ceramic capacitors can be used without the necessary addition of ESR, as is common with other regulators. Internal protection circuitry includes reverse-battery protection, current limiting, thermal limiting, and reverse-current protection. The devices are available in fixed output voltages of 1.5 V, 1.8 V, 2.5 V, and 3.3 V, and as an adjustable device with a 1.21-V reference voltage. The TL1963A-Q1 regulators are available in the 5-pin TO-263 (KTT) 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

Device HBM ESD Classification Level 2

Device CDM ESD Classification Level C6

Optimized for Fast Transient Response

Output Current: 1.5 A

Dropout Voltage: 340 mV

Low Noise: 40 μ V_{RMS} (10 Hz to 100 kHz)

1-mA Quiescent Current

No Protection Diodes Required

Controlled Quiescent Current in Dropout

Fixed Output Voltages: 1.5 V, 1.8 V, 2.5 V, and 3.3 V

Adjustable Output Voltage: 1.21 V to 20 V

Less Than 1- μ A Quiescent Current in Shutdown

Stable With 10- μ F Output Capacitor

Stable With Ceramic Capacitors

Reverse-Battery Protection

No Reverse Current

Thermal Limiting

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