

FEATURES

- Low voltage operation (down to 1.24V)
- Wide operating current range 80μA to 100mA
- 0.2Ω Typical output impedance
- Voltage reference tolerance 1% for B series and 0.5% for A series
- Pin-to-Pin replacement for TLV431 and SC431L
- Available in SOT-23, SOT-25(SOT-23-5), SOT-89 and TO-92 packages

APPLICATION

- Linear Regulators
- Adjustable Supplies
- Switching Power Supplies
- Battery Operated Computers
- Instrumentation
- Computer Disk Drives

DESCRIPTION

The AT432 is a three terminal adjustable shunt regulator with thermal stability guaranteed over temperature. The output voltage can be adjusted to any value from 1.24V (V_{REF}) to 18V with two external resistors. The AT432 has a typical dynamic output impedance of 0.2Ω. Active output circuitry provides a very sharp turn on characteristic, making the AT432 an excellent replacement for zener diodes. When combined with an optocoupler, the AT432 can be used as an error amplifier.

The AT432 shunt regulator is available with two voltage tolerances (0.5% and 1.0%) and three package options (SOT-23, SOT-89, SOT-25(SOT-23-5) and TO-92). This allows the designer the opportunity to select the optimum combination of cost and performance for their application.

TYPICAL APPLICATION CIRCUITS

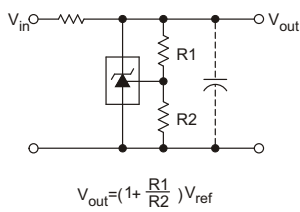


Figure 1. Shunt Regulator

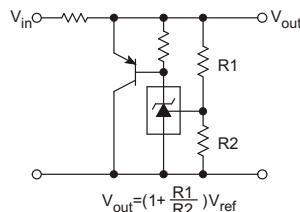


Figure 2. High Current Shunt Regulator

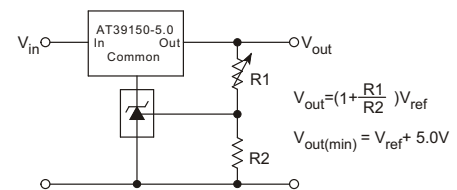


Figure 3. Output Control for a Three Terminal Fixed Regulator

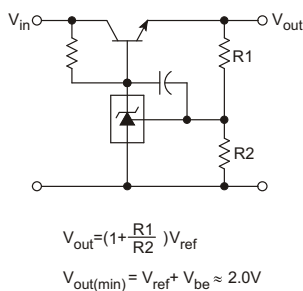


Figure 4. Series Pass Regulator

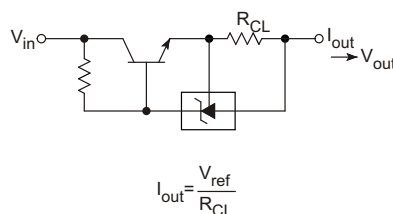


Figure 5. Constant Current Source

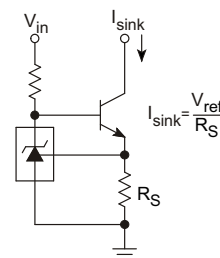


Figure 6. Constant Current Sink

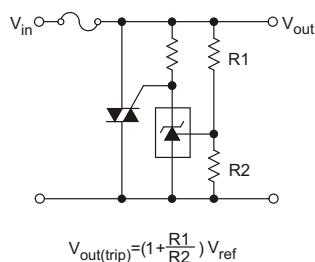


Figure 7. TRIAC Crowbar

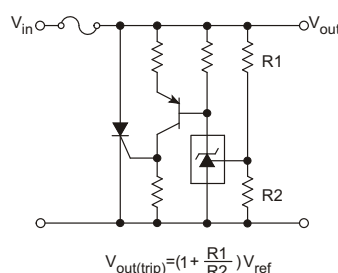


Figure 8. SRC Crowbar