

General Description:

The AS431 series ICs are three-terminal adjustable shunt regulators with guaranteed thermal stability over a full operation range. These ICs feature sharp turn-on characteristics, low temperature coefficient and low output impedance, which make them ideal substitutes for Zener diodes in applications such as switching power supply, charger and other adjustable regulators.

The AS431 series ICs contain two voltage types, 36V and 18V. The output voltage of both types can be set to any value between $V_{REF}(2.5V)$ and the corresponding maximum cathode voltage.

The AS431 precision reference is offered in three bandgap tolerance: 0.5%, 1% and 2%.

The 4 main packages have low thermal impedance which allows operation over a wide range of $-40^{\circ}C$ to $125^{\circ}C$.

Features:

- Programmable precise output voltage from 2.5V to 36V
- Temperature compensated for operation over a full temperature range
- Low dynamic output resistance with 0.2Ω typical value
- Sink current capacity from 1mA to 100 mA
- Low equivalent full-range temperature coefficient with 30PPM maximum
- Low output noise
- Available in 5 packages: TO-92, SOT-23, SOIC-8, SOT-23-5

Applications:

- Precision Voltage Reference
- Switching Power Supply
- Charger
- Voltage Adapter
- Adjusted Power Supply

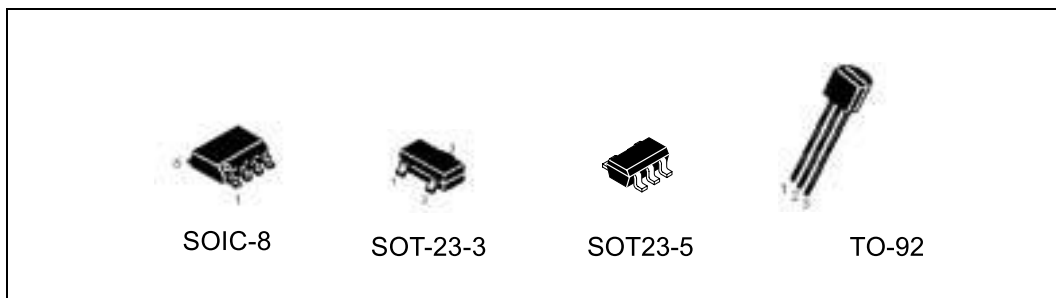


Figure 1. Package types of AS431