

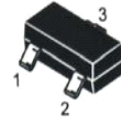
SOT-23 Encapsulate Adjustable Reference Source

CJ431 Adjustable Accurate Reference Source

FEATURES

- The output voltage can be adjusted to 36V
- Low dynamic output impedance ,its typical value is 0.2Ω
- Trapping current capability is 1 to 100mA
- The typical value of the equivalent temperature factor in the whole temperature scope is 50 ppm/°C
- The effective temperature compensation in the working range of full temperature
- Low output noise voltage
- Fast on -state response

SOT-23



- 1、REFERENCE
- 2、CATHODE
- 3、ANODE

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter | SYMBOL | VALUE | UNITS |
|------------------------------------|-----------|------------|-------|
| Cathode Voltage | V_{KA} | 37 | V |
| Cathode Current Range (Continuous) | I_{KA} | -100-+150 | mA |
| Reference Input Current Range | I_{ref} | 0.05-+10 | mA |
| Power Dissipation | P_D | 350 | mW |
| Operating temperature | T_{opr} | 0-70 | °C |
| Storage temperature Range | T_{stg} | -65-+150°C | °C |

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT | |
|---|---------------------------------|--|-------|---------------------------------------|-------|----------|-------|
| Reference Input Voltage | V_{ref} | $V_{KA}=V_{REF}, I_{KA}=10mA$ | 2.450 | 2.5 | 2.550 | V | |
| Deviation of reference input Voltage Over temperature (note) | $\Delta V_{ref}/T\Delta$ | $V_{KA}=V_{REF}, I_{KA}=10mA$ $T_{min}\leq T_a\leq T_{max}$ | | 4.5 | 17 | mV | |
| Ratio Of Change in Reference Input Voltage to the change in Cathode Voltage | $\Delta V_{ref}/V\Delta I_{KA}$ | $I_{KA}=10mA$ | | ΔV_{KA} $=10V\sim V_{REF}$ | -1.0 | -2.7 | m V/V |
| | | | | $\Delta V_{KA}=36V\sim 10V$ | -0.5 | -2.0 | m V/V |
| Reference Input Current | I_{ref} | $I_{KA}=10mA, R_1=10K\Omega R_2=\infty$ | | 1.5 | 4 | μA | |
| Deviation Of Reference Input Current Over Full Temperature Range | $\Delta I_{ref}/T\Delta$ | $I_{KA}=10mA,$ $R_1=10K\Omega R_2=\infty T_A=full$ Temperature | | 0.4 | 1.2 | μA | |
| Minimum cathode current for regulation | $I_{KA(min)}$ | $V_{KA}=V_{REF}$ | | 0.45 | 1.0 | mA | |
| Off-state cathode Current | $I_{KA(OFF)}$ | $V_{KA}=36V, V_{REF}=0$ | | 0.05 | 1.0 | μA | |
| Dynamic Impedance | Z_{KA} | $V_{KA}=V_{REF}, I_{KA}=1$ to 100mA $f\leq 1.0KHz$ | | 0.15 | 0.5 | Ω | |

Note: $T_{MIN}=0^{\circ}C$, $T_{MAX}=+70^{\circ}C$ CLASSIFICATION OF V_{ref}

| Rank | 0.5% | 1% | 2% |
|-------|-------------|-------------|-------------|
| Range | 2.487-2.512 | 2.475-2.525 | 2.450-2.550 |