



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-89 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 0.2

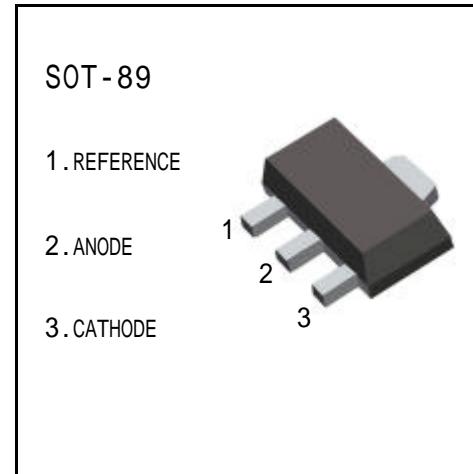
Trapping current capability is 1 to 100mA

The typical value of the equivalent temperature factor in the whole temperature scope is 50 ppm/

The effective temperature compensation in the working range of full temperature

Low output noise voltage

Fast on -state respons



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

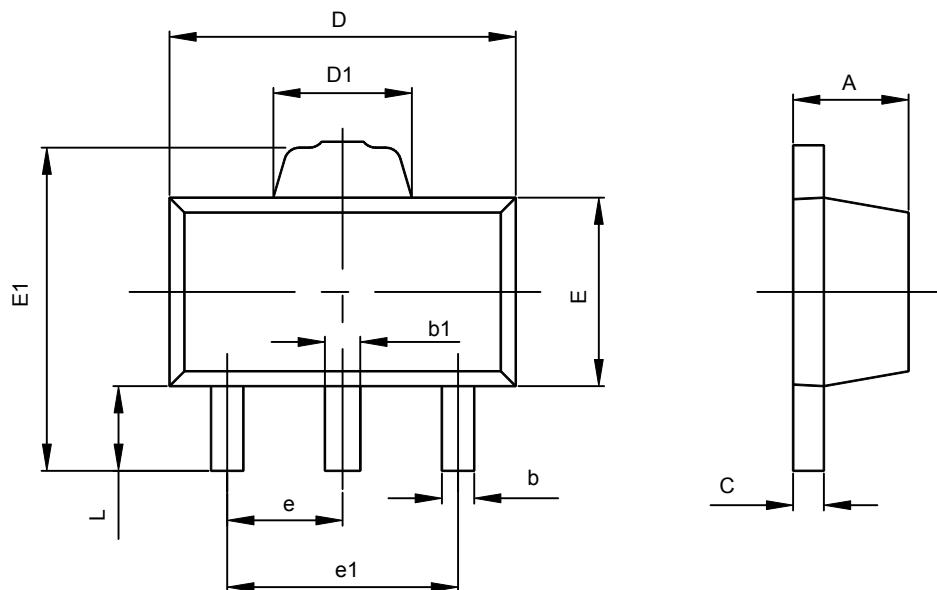
| Parameter | SYMBOL | VALUE | UNITS |
|------------------------------------|-----------|-----------|-------|
| Cathode Voltage | V_{KA} | 37 | V |
| Cathode Current Range (Continuous) | I_{KA} | -100~+150 | mA |
| Reference Input Current Range | I_{ref} | 0.05~+10 | mA |
| Power Dissipation | P_D | 770 | mW |
| Operating temperature | T_{opr} | 0~70 | |
| Storage temperature Range | T_{stg} | -65~+150 | |

ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|-------------------|---|---------------------------|-------|-------|---------|
| Reference Input Voltage | V_{ref} | $V_{KA}=V_{REF}, I_{KA}=10mA$ | 2.440 | 2.495 | 2.550 | V |
| Deviation of reference input Voltage Over temperature (note) | V_{ref}/ T | $V_{KA}=V_{REF}, I_{KA}=10mA$ $T_{min} \quad T_a \quad T_{max}$ | | 4.5 | 17 | mV |
| Ratio Of Change in Reference Input Voltage to the change in Cathode Voltage | V_{ref}/ V_{KA} | $I_{KA}=10mA$ | $V_{KA}=10V \sim V_{REF}$ | | -1.0 | -2.7 |
| | | $I_{KA}=10mA$ | $V_{KA}=36V \sim 10V$ | | -0.5 | -2.0 |
| Reference Input Current | I_{ref} | $I_{KA}= 10mA, R_1=10K$ $R_2=$ | | 1.5 | 4 | μA |
| Deviation Of Reference Input Current Over Full Temperature Range | I_{ref}/ T | $I_{KA}=10mA, R_1=10K$ $R_2=$ $T_a=full\ Temperature$ | | 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} | $V_{KA}=V_{REF}, I_{KA}=1 \text{ to } 100mA$ $f = 1.0\text{KHz}$ | | 0.15 | 0.5 | |

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

SOT-89-3L PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 1.400 | 1.600 | 0.055 | 0.063 |
| b | 0.320 | 0.520 | 0.013 | 0.020 |
| b1 | 0.360 | 0.560 | 0.014 | 0.022 |
| c | 0.350 | 0.440 | 0.014 | 0.017 |
| D | 4.400 | 4.600 | 0.173 | 0.181 |
| D1 | 1.400 | 1.800 | 0.055 | 0.071 |
| E | 2.300 | 2.600 | 0.091 | 0.102 |
| E1 | 3.940 | 4.250 | 0.155 | 0.167 |
| e | 1.500TYP | | 0.060TYP | |
| e1 | 2.900 | 3.100 | 0.114 | 0.122 |
| L | 0.900 | 1.100 | 0.035 | 0.043 |