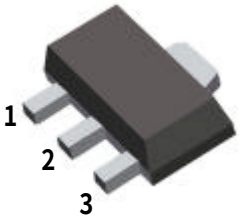
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-89 Encapsulate Adjustable Reference Source

CJ431 Adjustable Accurate Reference Source

SOT-89

1. REFERENCE
2. ANODE
3. CATHODE



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/℃

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）

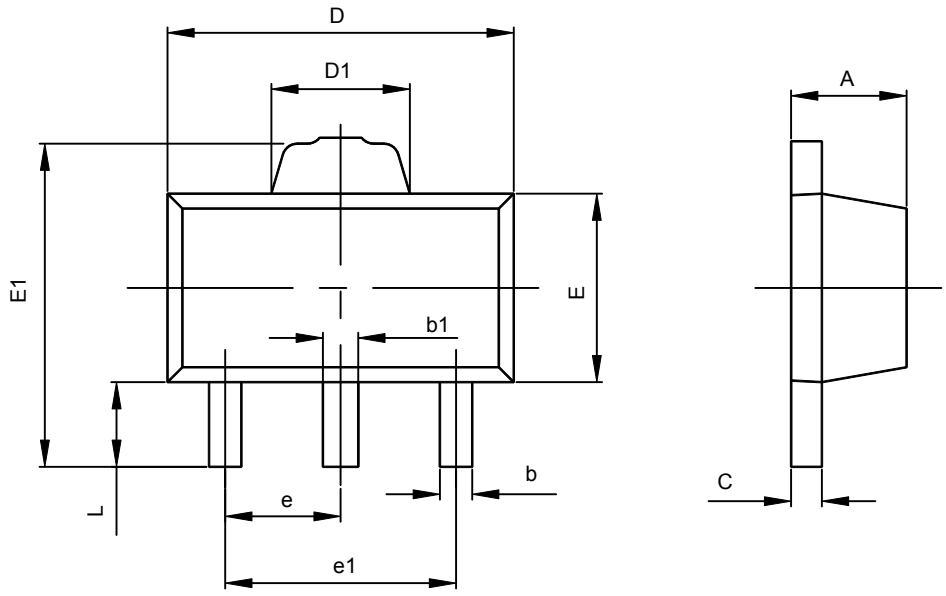
Parameter	SYMBOL	VALUE	UNITS
Cathode Voltage	V_{KA}	37	V
Cathode Current Range (Continuous)	I_{KA}	-100-+150	mA
Reference Input Current Range	Iref	0.05-+10	mA
Power Dissipation	P_D	770	mW
Operating temperature	Topr	0-70	℃
Storage temperature Range	Tstg	-65-+150℃	℃

ELECTRICAL CHARACTERISTICS（Tamb=25℃ 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)	$\triangle V_{ref}/\triangle T$	$V_{KA}=V_{REF}$, I_{KA}=10mA Tmin≤Ta≤Tmax			4.5	17	mV
Ratio Of Change in Reference Input Voltage to the change in Cathode Voltage	$\triangle V_{ref}/\triangle V_{KA}$	I_{KA}=10mA	$\triangle V_{KA}$ =10V～V_{REF}		-1.0	-2.7	m V/V
			$\triangle V_{KA}$ =36V～10V		-0.5	-2.0	
Reference Input Current	l_{ref}	I_{KA}= 10mA,R_1=10KΩ R_2=∞			1.5	4	μA
Deviation Of Reference Input Current Over Full Temperature Range	$\triangle l_{ref}/\triangle T$	l_{KA}=10mA, R_1=10KΩ 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}	$V_{KA}=V_{REF}$,l_{KA}=1 to 100mA f≤1.0KHz			0.15	0.5	Ω

Note:T_{MIN}=0℃ ,T_{MAX}=+70℃

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