



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## SOT-89 Encapsulate Adjustable Reference Source

**CJ431** Adjustable Accurate Reference Source

### FEATURES

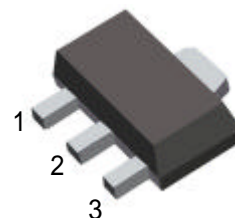
The output voltage can be adjusted to 36V  
 Low dynamic output impedance ,its typical value is 0.2  
 Trapping current capability is 1 to 100mA  
 The typical value of the equivalent temperature factor in the whole temperature scope is 50 ppm/  
 The effective temperature compensation in the working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

SOT-89

1. REFERENCE

2. ANODE

3. CATHODE



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

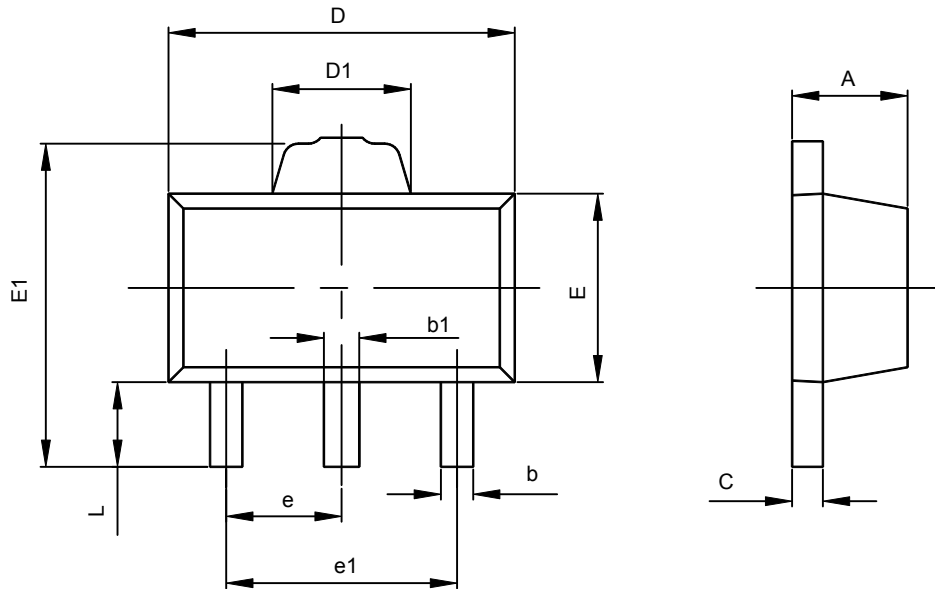
Parameter	SYMBOL	VALUE	UNITS
Cathode Voltage	$V_{KA}$	37	V
Cathode Current Range (Continuous)	$I_{KA}$	-100~+150	mA
Reference Input Current Range	$I_{ref}$	0.05~+10	mA
Power Dissipation	$P_D$	770	mW
Operating temperature	$T_{opr}$	0-70	
Storage temperature Range	$T_{stg}$	-65~+150	

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25$ 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)	$V_{ref}/T$	$V_{KA}=V_{REF}$ $I_{KA}=10mA$ $T_{min}$ $T_a$ $T_{max}$		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	m V/V
		$V_{KA}=36V \sim 10V$		-0.5	-2.0	
Reference Input Current	$I_{ref}$	$I_{KA}=10mA, R_1=10K$ $R_2=$		1.5	4	$\mu A$
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	$\mu A$
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	$\mu A$
Dynamic Impedance	$Z_{KA}$	$V_{KA}=V_{REF}, I_{KA}=1\ to\ 100mA$ $f\ 1.0KHz$		0.15	0.5	

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