



SOT-23-3L 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

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}	-55~+150°C	°C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ 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)	ΔV _{ref} /ΔT	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	ΔV _{ref} /ΔV _{KA}	I _{KA} =10m A	ΔV _{KA} =10V~ V _{REF}		-1.0	-2.7	m V/V
			ΔV _{KA} =36V~ 10V		-0.5	-2.0	
Reference Input Current	I _{ref}	I _{KA} = 10mA,R ₁ =10K Ω R ₂ =∞			1.5	0.5	μ A
Deviation Of Reference Input Current Over Full Temperature Range	ΔI _{ref} /ΔT	I _{KA} =10mA, R ₁ =10K Ω R ₂ =∞ T _A =full Temperature			0.4	1.2	μ 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	μ A
Dynamic Impedance	Z _{KA}	V _{KA} =V _{REF} ,I _{KA} =1 to 100mA f≤1.0KHz			0.15	0.5	Ω

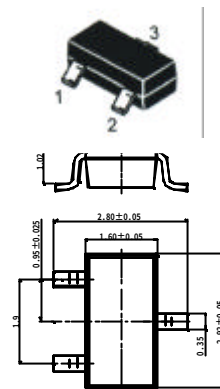
Note : $T_{MIN}=0^\circ\text{C}$, $T_{MAX}=+70^\circ\text{C}$

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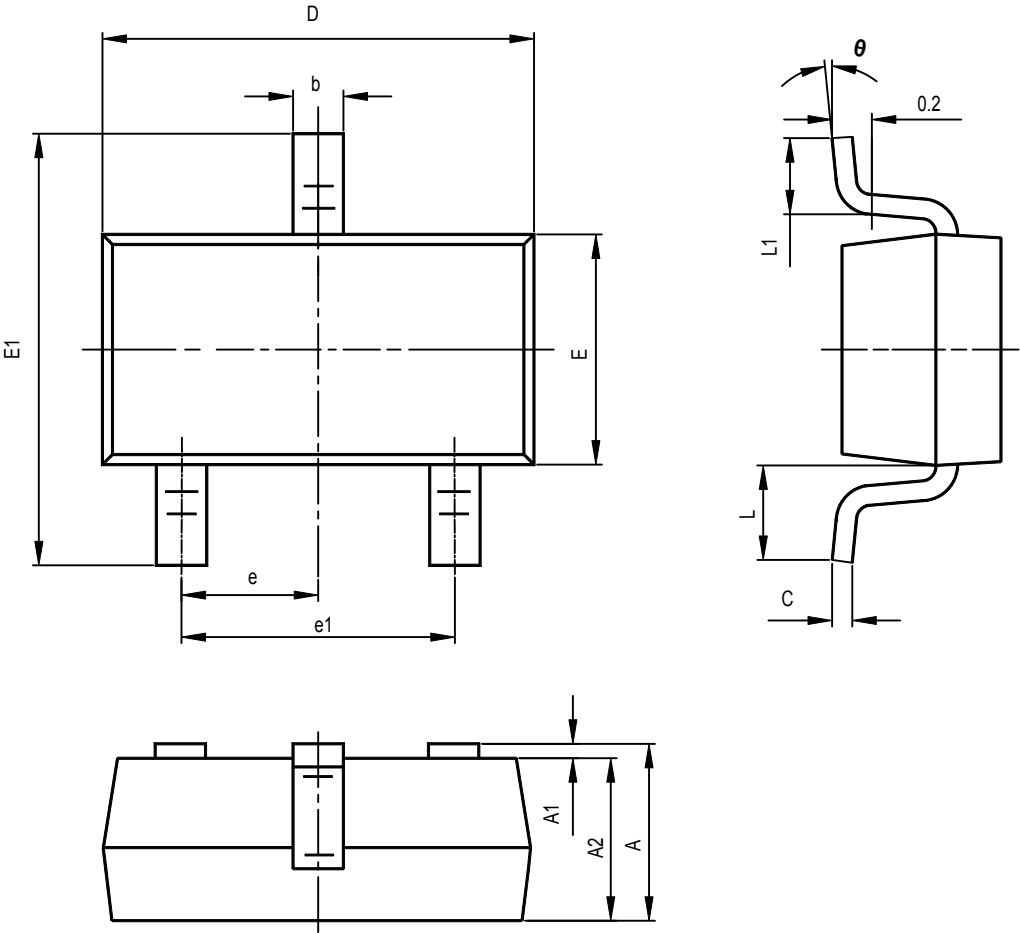
1. REFERENCE

2. CATHODE

3. ANODE



SOT-23-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.400	0.012	0.016
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950TPY		0.037TPY	
e1	1.800	2.000	0.071	0.079
L	0.700REF		0.028REF	
L1	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°