



Micro Commercial Components

Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

TL431V

Features

- Output voltage can be adjusted to 36V
- Trapping current capability is 1 to 100 mA
- The effective temperature compensation in the working range of full temperature
- Low dynamic output impedance, its typical value is 0.2Ω
- Low output noise voltage
- Fast on-state response
- ≠ Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

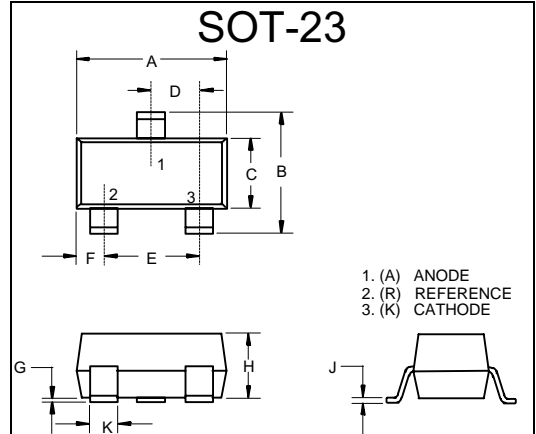
Adjustable Accurate Reference Source

Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_I	37	V
Operating Temperature	T_{OPR}	0---70	°C
Storage Temperature Range	T_{STG}	-55---+150	°C

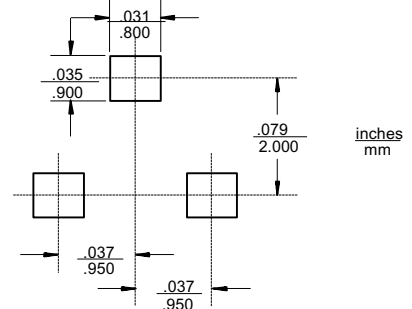
Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Sym	Min	Typ	Max	Test conditions
Reference Input Voltage	V_{ref}	2.45V	2.50V	2.55V	$V_{KA}=V_{REF}$, $I_{KA}=10mA$
Deviation of reference input voltage	$\Delta V_{ref}/\Delta T$		4.5mV	17mV	$V_{KA}=V_{REF}$, $I_{KA}=10mA$ $T_{min} \leq T_a \leq T_{max}$
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage	$\frac{\Delta V_{ref}/\Delta V_{KA}}$		-1.0	-2.7	$I_{KA}=10mA$ $\Delta V_{KA}=10V \sim V_{ref}$ $\Delta V_{KA}=36V \sim 10V$
			-0.5	-2.0	
Reference Input Current	I_{ref}		1.5uA	4uA	$I_{KA}=10mA$, $R1=10K\Omega$ $R2=\infty$
Deviation of Reference Input Current Over Full Temperature Range	$\Delta I_{ref}/\Delta T$		0.4uA	1.2uA	$I_{KA}=10mA$, $R1=10K\Omega$ $R2=\infty$ $T_A=full\ Temperature$
Minimum Cathode Current for Regulation	$I_{KA}(min)$		0.45mA	1.0mA	$V_{KA}=V_{REF}$
Off-State Cathode Current	$I_{KA}(OFF)$		0.05uA	1.0uA	$V_{KA}=36V$, $V_{REF}=0V$
Dynamic Impedance	Z_{KA}		0.15Ω	0.5Ω	$V_{KA}=V_{REF}$, $I_{KA}=1\ to\ 100mA$, $f \leq 1.0KHz$



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout





Micro Commercial Components

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

*****APPLICATIONS DISCLAIMER*****

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.