

**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
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

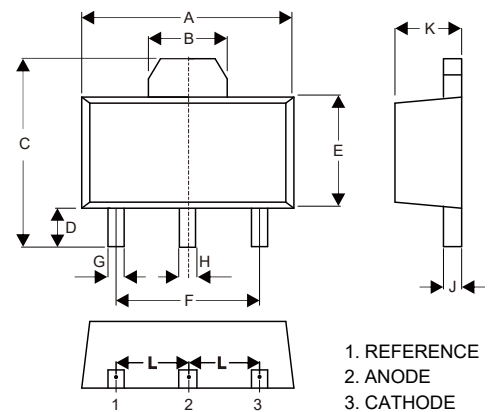
**Maximum Ratings**

Parameter	Symbol	Value	Unit
Input Voltage (Vo=5.8V)	V <sub>1</sub>	37	V
Operating Junction	T <sub>J</sub>	0~150	°C
Operating Junction Temperature	T <sub>opr</sub>	0~70	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

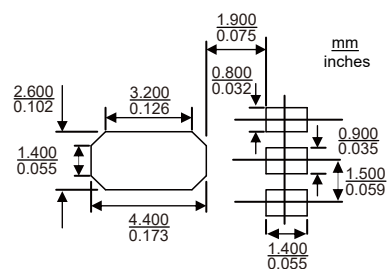
**Programmable Precision Shunt Regulator**

**SOT-89**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.061		1.55		TYP.
C	0.154	0.171	3.91	4.35	
D	0.031	0.047	0.80	1.20	
E	0.089	0.104	2.25	2.65	
F	0.118		3.00		TYP.
G	0.013	0.020	0.33	0.52	
H	0.015	0.021	0.38	0.53	
J	0.014	0.017	0.35	0.44	
K	0.055	0.063	1.40	1.60	
L	0.059		1.50		TYP.

**Suggested Solder Pad Layout**

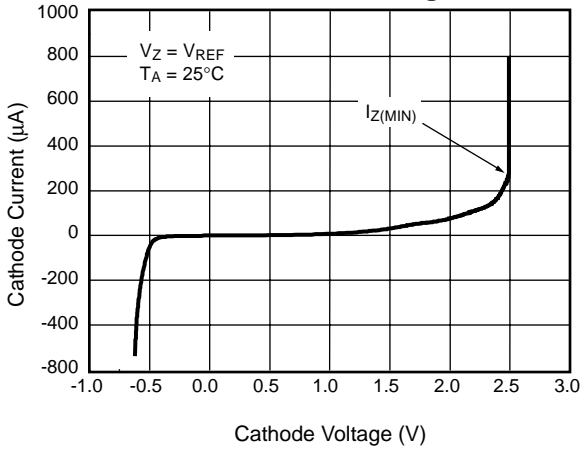


**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

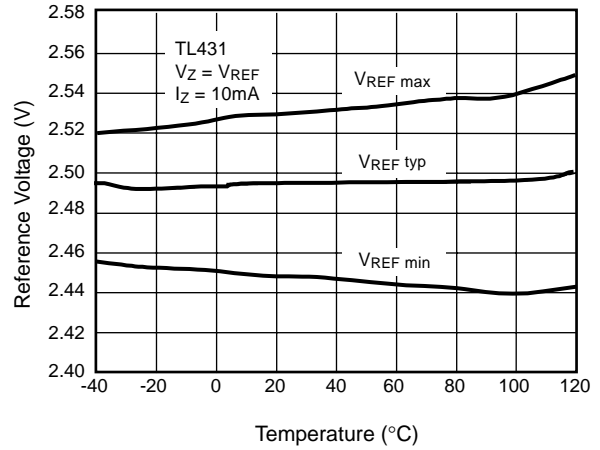
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reference Input Voltage	$V_{ref}$	$V_{KA}=V_{REF}, I_{KA}=10mA$	2.440	2.495	2.550	V
Deviation of Reference Input Voltage(Note1)	$\frac{\Delta V_{ref}}{\Delta T}$	$V_{KA}=V_{REF}, I_{KA}=10mA$ $T_{min} \leq T_a \leq T_{max}$		4.5	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage	$\frac{\Delta V_{ref}}{\Delta V_{KA}}$	$\Delta V_{KA}=10V \sim V_{ref}, I_{KA}=10mA$		-1.0	-2.7	
		$\Delta V_{KA}=36V \sim 10V, I_{KA}=10mA$		-0.5	-2.0	
Reference Input Current	$I_{ref}$	$I_{KA}=10mA,$ $R_1=10K\Omega, R_2=\infty$		1.5	4.0	$\mu A$
Deviation of Reference Input Current Over Full Temperature Range	$\frac{\Delta I_{ref}}{\Delta T}$	$I_{KA}=10mA,$ $R_1=10K\Omega, R_2=\infty$ $T_A=full\ Temperature$		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	$I_{KA(off)}$	$V_{KA}=36V, V_{REF}=0V$		0.05	1.0	$\mu A$
Dynamic Impedance	$Z_{KA}$	$V_{KA}=V_{REF}, I_{KA}=1\ to\ 100mA,$ $f \leq 1.0KHz$		0.15	0.5	$\Omega$

Curve Characteristics

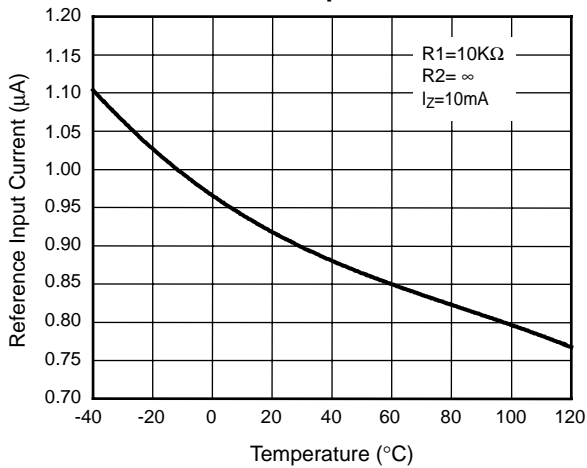
**Fig. 1 – Cathode Current vs. Cathode Voltage**



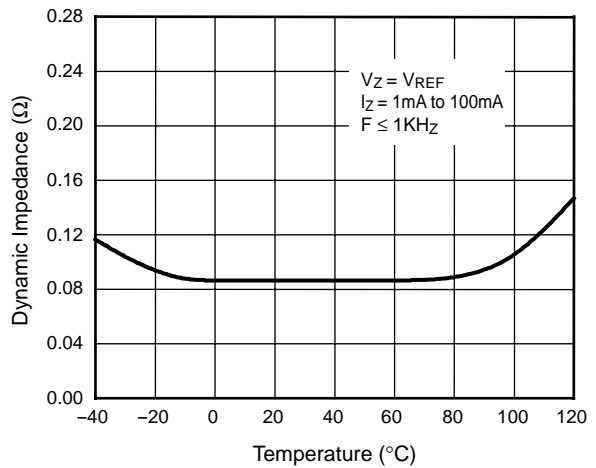
**Fig. 2– Reference Voltage vs. Temperature**



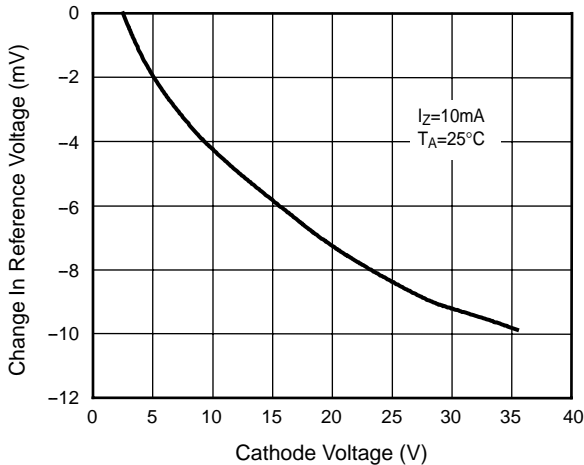
**Fig. 3 – Reference Input Current vs. Temperature**



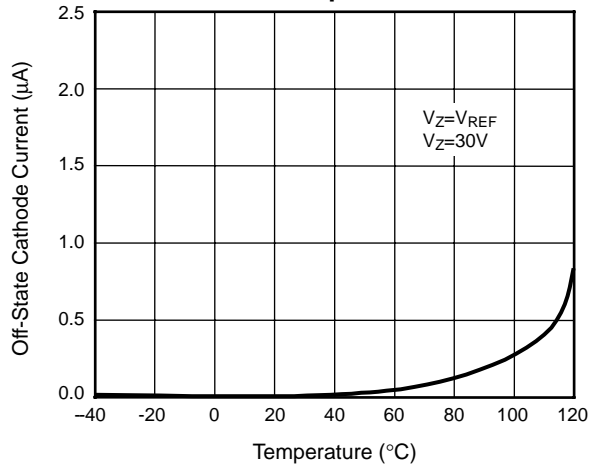
**Fig. 4 – Dynamic Impedance vs. Temperature**



**Fig. 5 – Change in Reference Voltage vs. Cathode Voltage**



**Fig. 6 – Off-State Cathode Current vs. Temperature**



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:1Kpcs/Reel

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