SOT-89

Precision adjustable shunt regulator in a SOT-89 Plastic Package.

2.500V; 0.4%,0.8%; 1.0mA 100mA; ;
V_O=V_{ref} 37V; (:400μA); (:0.15Ω)

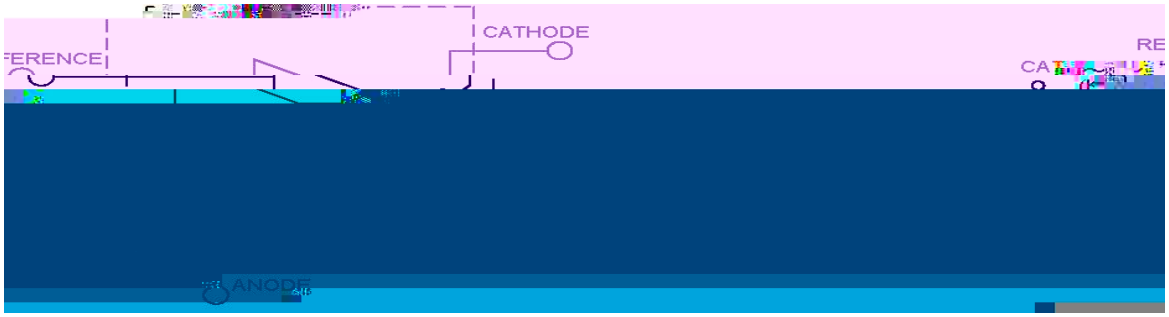
Precise reference voltage to 2.500V;guaranteed 0.4%,0.8% reference voltage Tolerance; sink current capability,1.0mA 100mA;quick turn-on; adjustable Output voltage, V_O=V_{ref} 37V;low operational cathode current,400μA typical; 0.15Ω typical output impedance, HF product.

Linear regulators, adjustable power L1 Tf0 -4.28 TD0aff04df09(42.72 433. i c0 Tw449.66 40.40af8ge)52 5Tw449.6

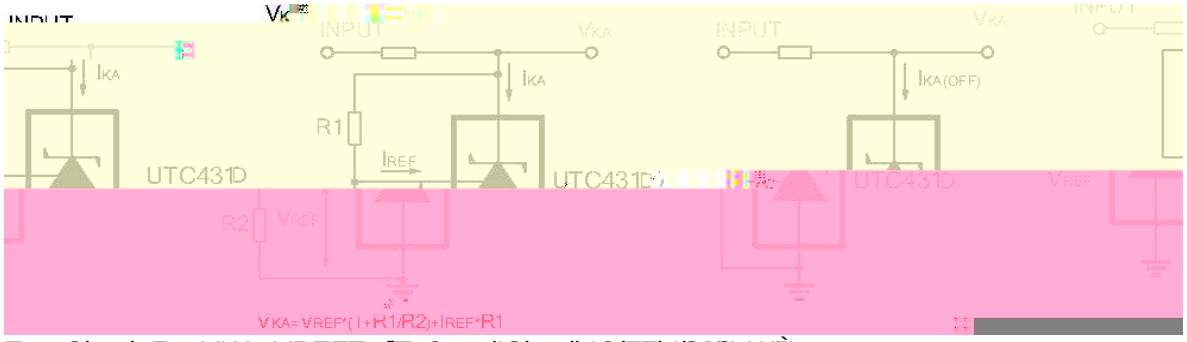
Parameter	Symbol	Rating	Unit
Cathode to Anode Voltage	V_{KA}	37	V
Cathode Current Range, Continuous	I_K	-100 +100	mA
Reference Input Current Range, Continuous	I_{REF}	0.05 +10	mA
Power Dissipation	P_D	770	mW
Operating Ambient Temperature	T_{amb}	-40 125	
Junction Temperature	T_j	160	
Storage Temperature Range	T_{stg}	-65 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reference Input voltage	V_{REF}	$V_{KA}=V_{REF}$ I_K=10mA(A=0.4%)	2.490	2.500	2.510	V
		$V_{KA}=V_{REF}$ I_K=10mA(B=0.8%)	2.480	2.500	2.520	V
Deviation of Reference Input Voltage Over-Temperature	V_{REF} /T	$V_{KA}=V_{REF}$ I_K=10mA T_A=-25 85		4.5	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage	V_{REF} / V_{KA}	I_K=10mA V_{KA} =10V to V_{REF}		-1	-2.7	mV/V
		I_K=10mA V_{KA} =36V to 10V		-0.45	-2.0	mV/V
Reference Input current	I_{REF}	I_K=10mA R_1=10KΩ R_2=open		1.0	4.0	μA
Deviation of Reference Input Current Over Full Temperature Range	I_{REF}/T	I_K=10mA R_1=10KΩ, R_2=open T_A=-40 125		0.4	1.2	μA
Minimum Cathode Current for Regulation	$I_{K(min)}$	$V_{KA}=V_{REF}$		0.4	1.0	mA
Off-state cathode current	$I_{K(off)}$	V_{KAOf}				

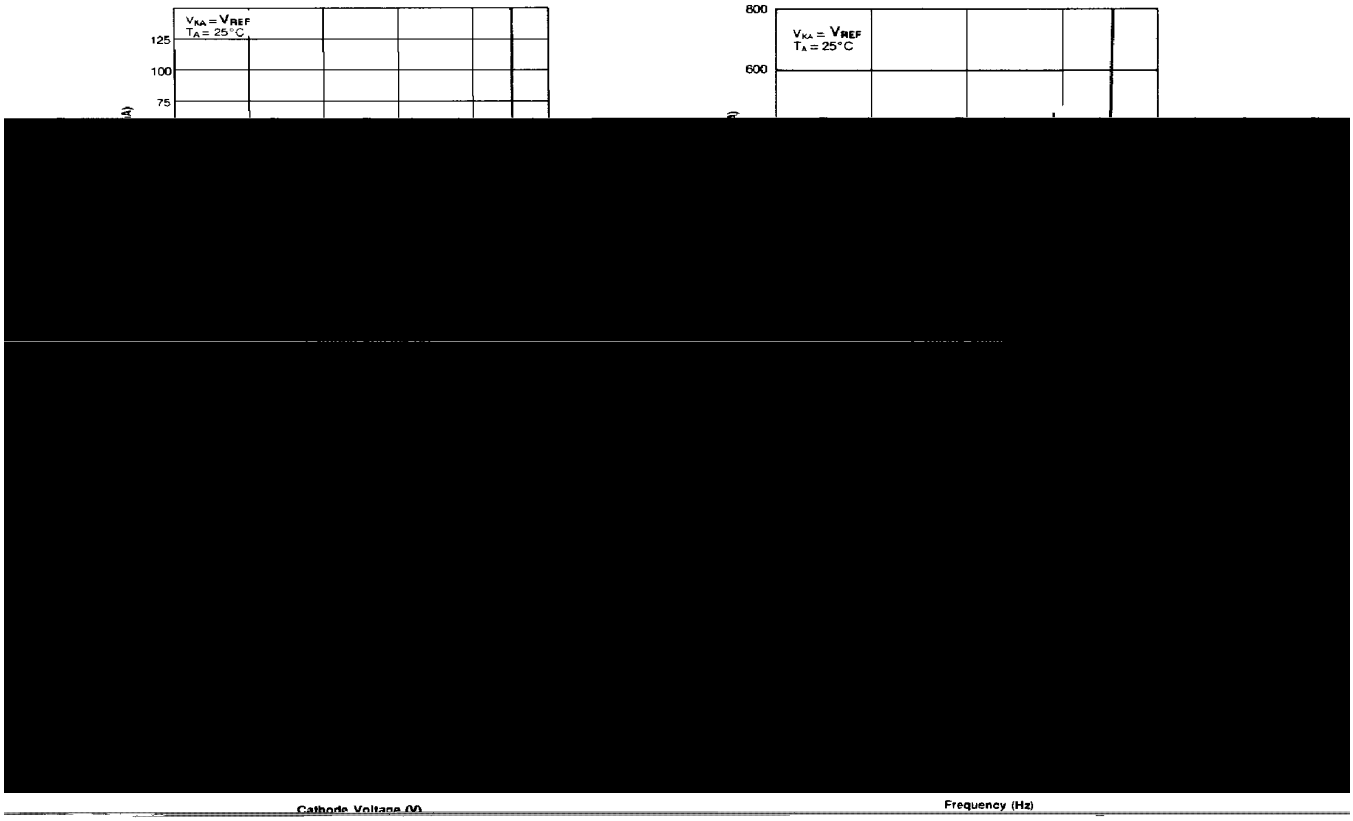
BLOCK DIAGRAM:

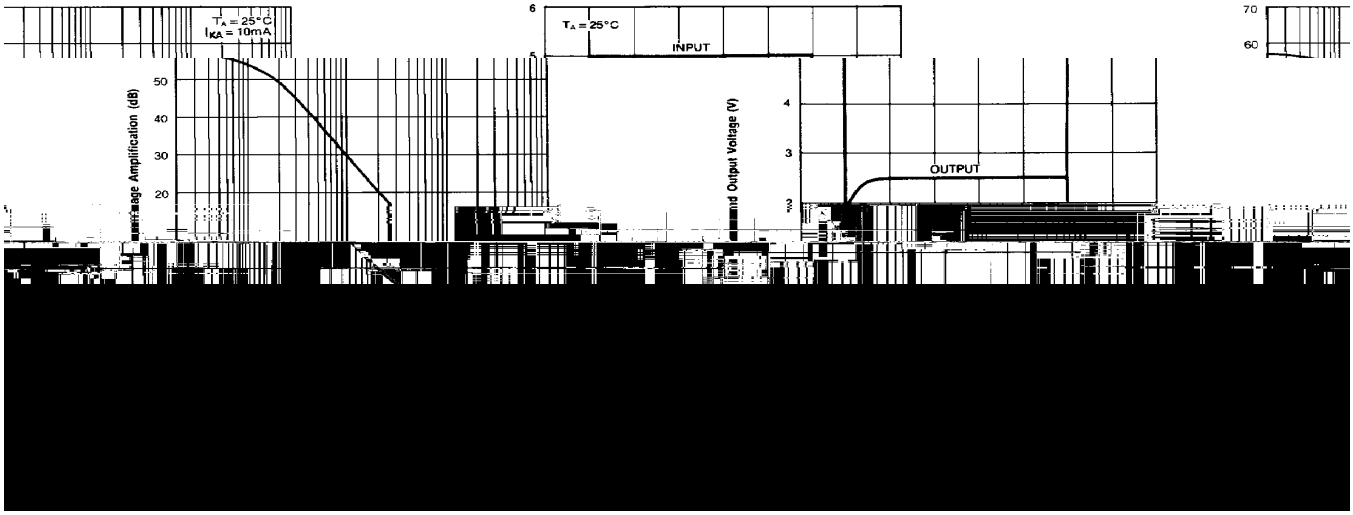


TEST CIRCUITS:

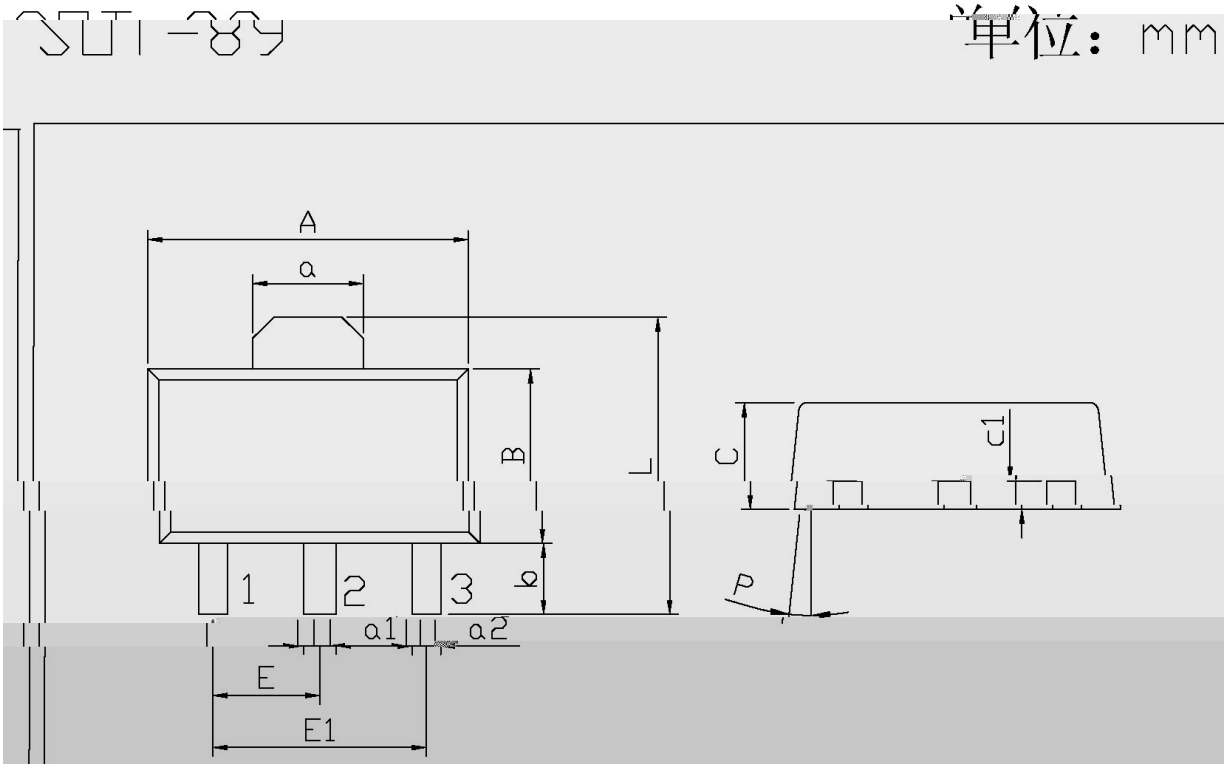


Test Circuit For VKA=VREFTw[Tu8 cm/ICircui)19(7T)1ÞC2gWÐ

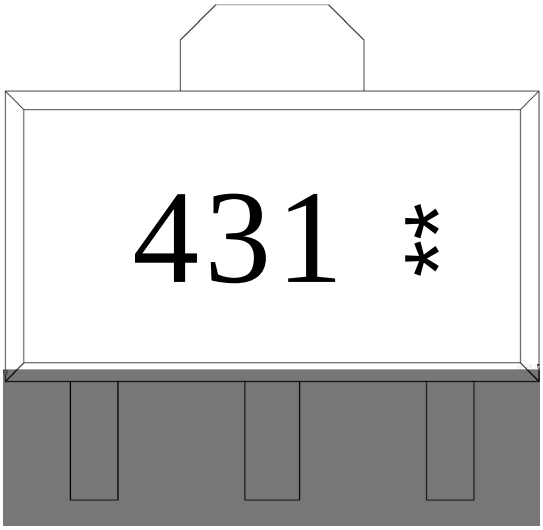

$V_{KA} = V_{REF}$
$T_A = 25°C$
125
100
75
800
600
Cathode Voltage (V)
Frequency (Hz)


$T_A = 25°C$
$I_{KA} = 10mA$
50
40
30
20
$T_A = 25°C$
INPUT
OUTPUT
6
5
4
3
2
70
60

SOT-89 单位：mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	1.50	1.80
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50



431

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Note:

431:	Product Type Code
**:	Lot No. Code, code change with Lot No

			Note:
1	150 180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5	5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3		2 10 /sec.	3. Cooling Speed: 2~10 /sec.

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ REEL

Package Type	Units	Dimension	(unit mm^3)