

Rev.A Dec.-2022

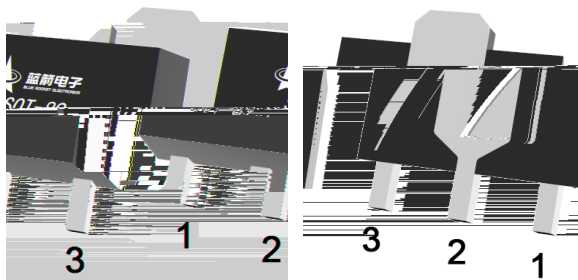
SOT-89

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

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

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

Linear regulators, adjustable power supply, switching power supply.



PIN1 R

PIN 2 A

PIN 3 K

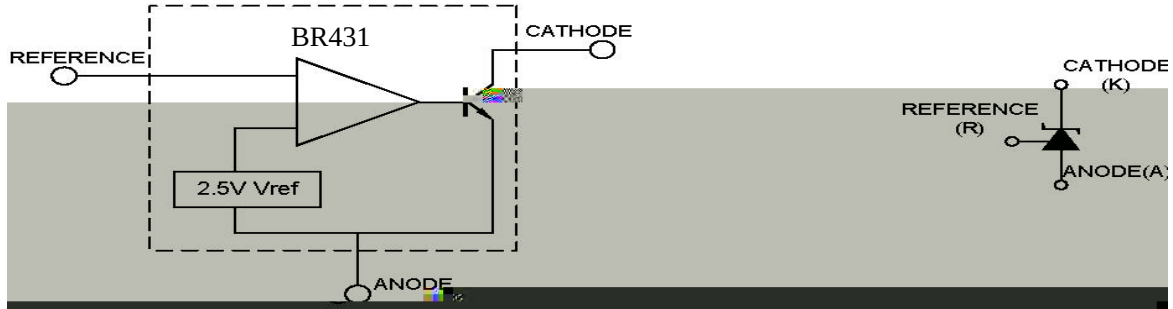
See Marking Instructions

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	°C
Junction Temperature	T_j	160	°C
Storage Temperature Range	T_{stg}	-65~150	°C

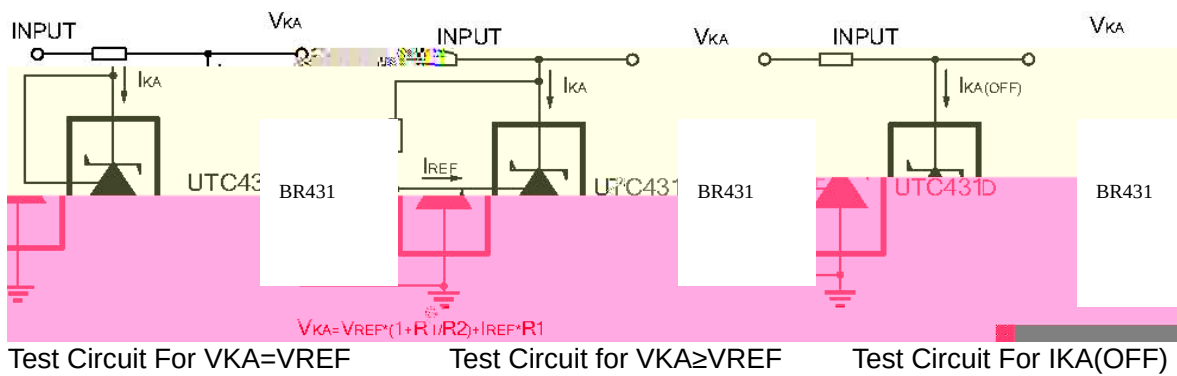
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reference Input voltage	V_{REF}	$V_{KA}=V_{REF}$ $I_K=10mA(A=0.4\%)$	2.490	2.500	2.510	V
		$V_{KA}=V_{REF}$ $I_K=10mA(B=0.8\%)$	2.480	2.500	2.520	V
Deviation of Reference Input Voltage Over-Temperature	$\Delta V_{REF}/T$	$V_{KA}=V_{REF}$ $I_K=10mA$ $T_A=-25\sim 85^{\circ}C$		4.5	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage	$\Delta V_{REF}/\Delta V_{KA}$	$I_K=10mA$ $\Delta V_{KA}=10V$ to V_{REF}		-1	-2.7	mV/V
		$I_K=10mA$ $\Delta V_{KA}=36V$ to $10V$		-0.45	-2.0	mV/V
Reference Input current	I_{REF}	$I_K=10mA$ $R_1=10K\Omega$ $R_2=open$		1.0	4.0	μA
Deviation of Reference Input Current Over Full Temperature Range	$\Delta I_{REF}/T$	$I_K=10mA$ $R_1=10K\Omega$, $R_2=open$ $T_A=-40\sim 125^{\circ}C$		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	$I_{K(off)}$	$V_{KA}Of$ R				

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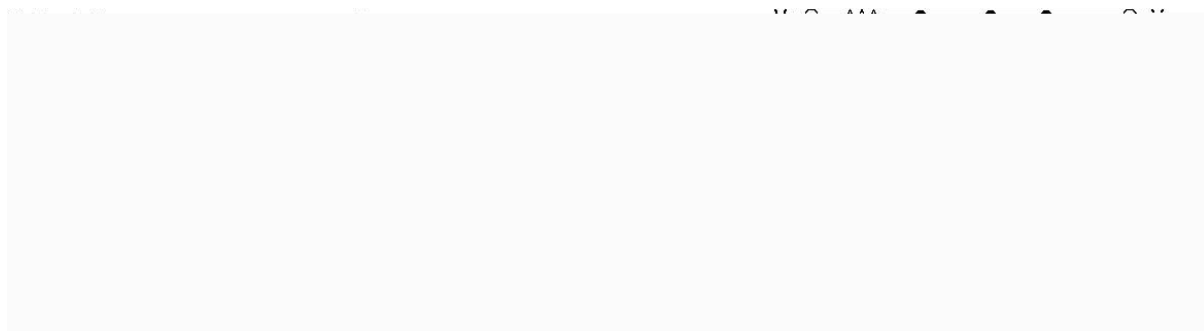
BLOCK DIAGRAM:



TEST CIRCUITS:

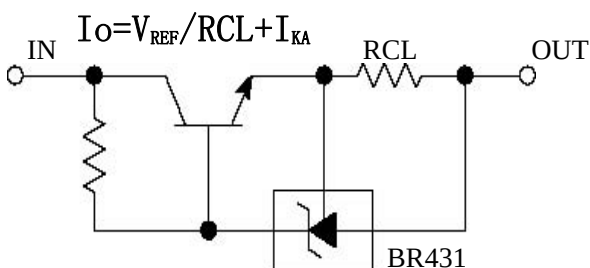


TYPICAL APPLICATION:

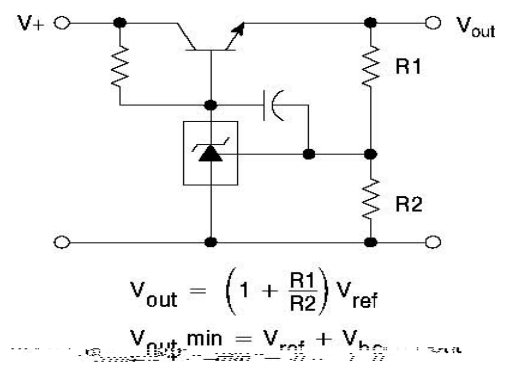


Shutdown Regulator

Higher-current Shunt

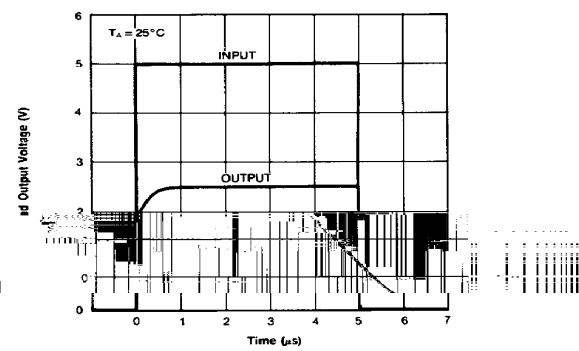
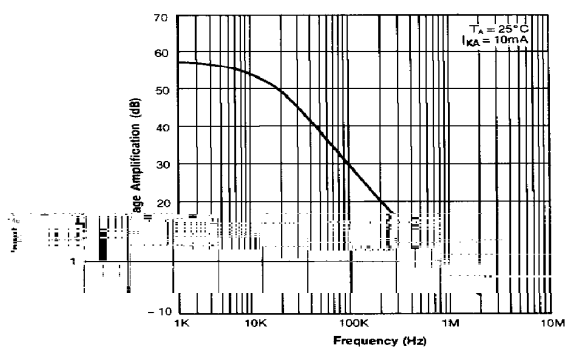
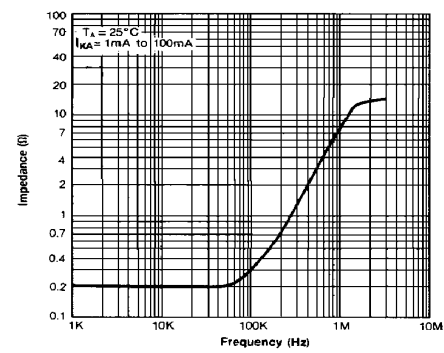
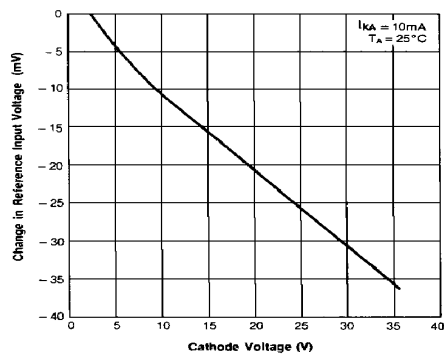
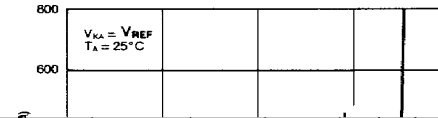
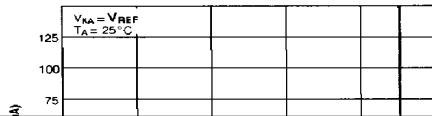


Constant Current Source



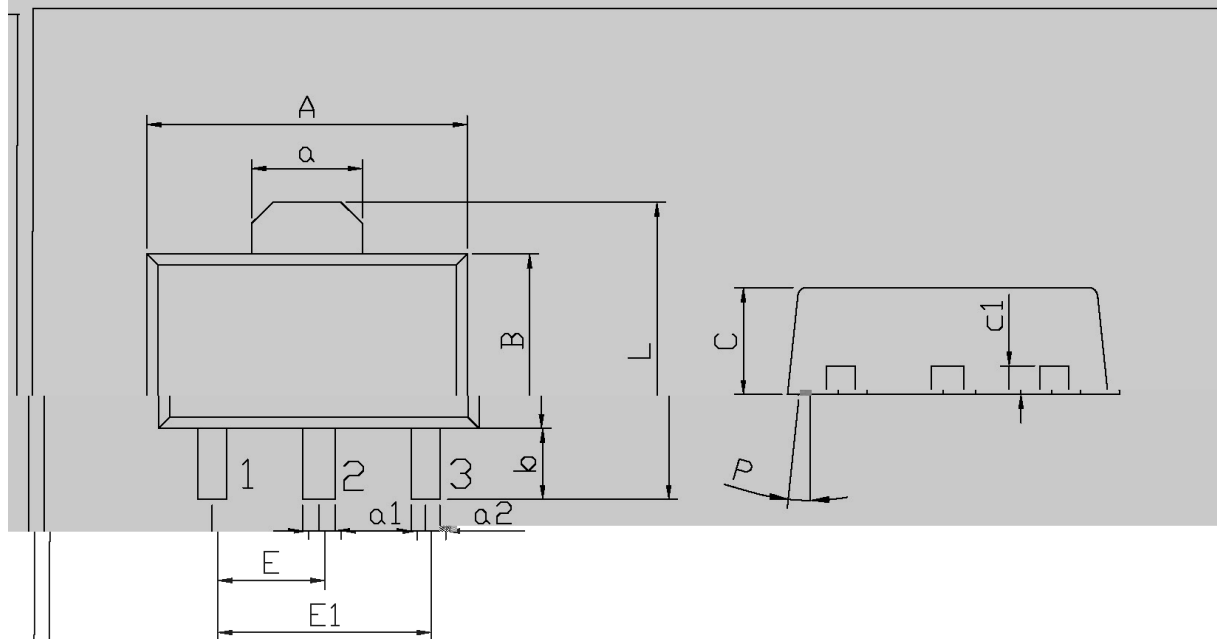
Series Pass Regulator

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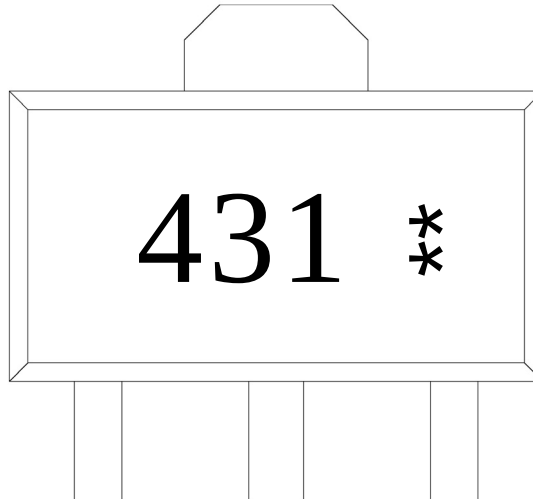


SUT-89

单位: mm



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.36	0.50
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	D	0.25	0.50



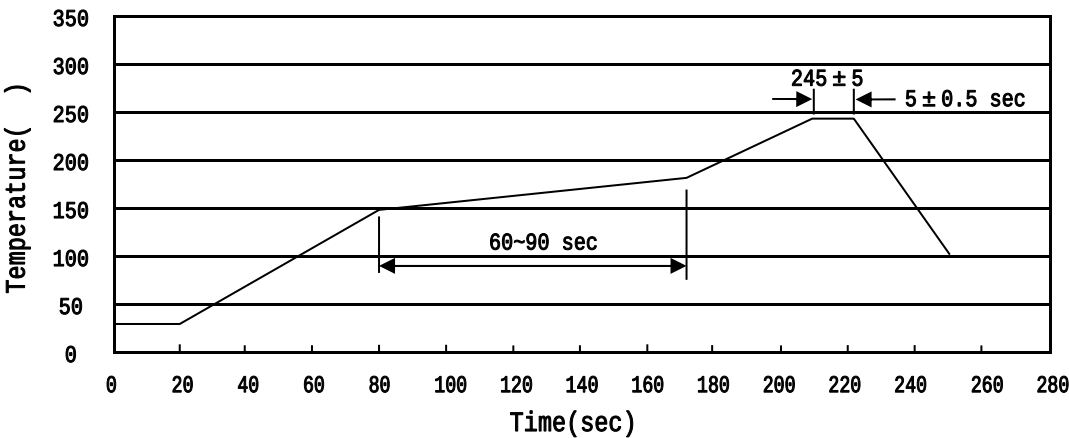
431

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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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱
						"		