/ Descriptions

SOT-23
Precision adjustable shunt regulator in a SOT-23 Plastic Package.

/ Features

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,400 A typical; 0.15 typical output impedance.

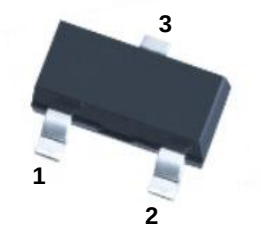
/ Applications

Linear regulators, adjustable power supply, switching power supply.

/ Equivalent Circuit



/ Pinning



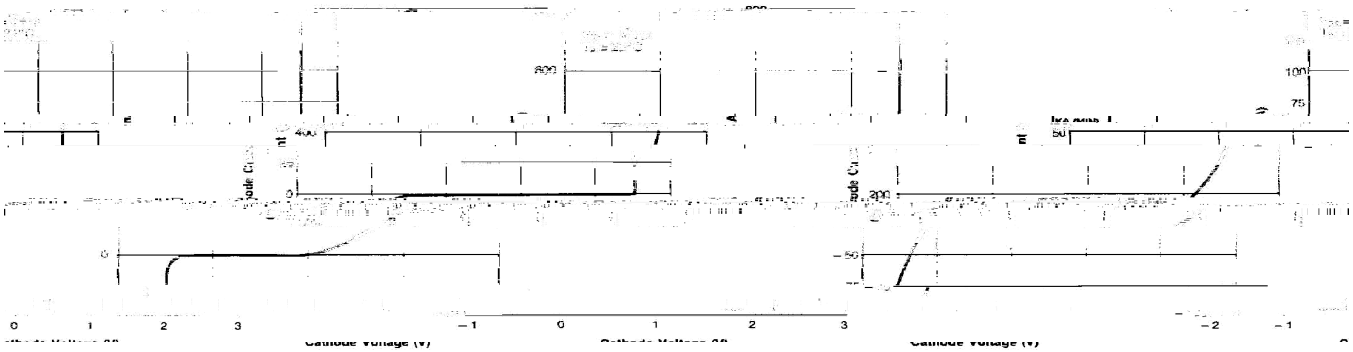
PIN1 R PIN 2 K PIN 3 A

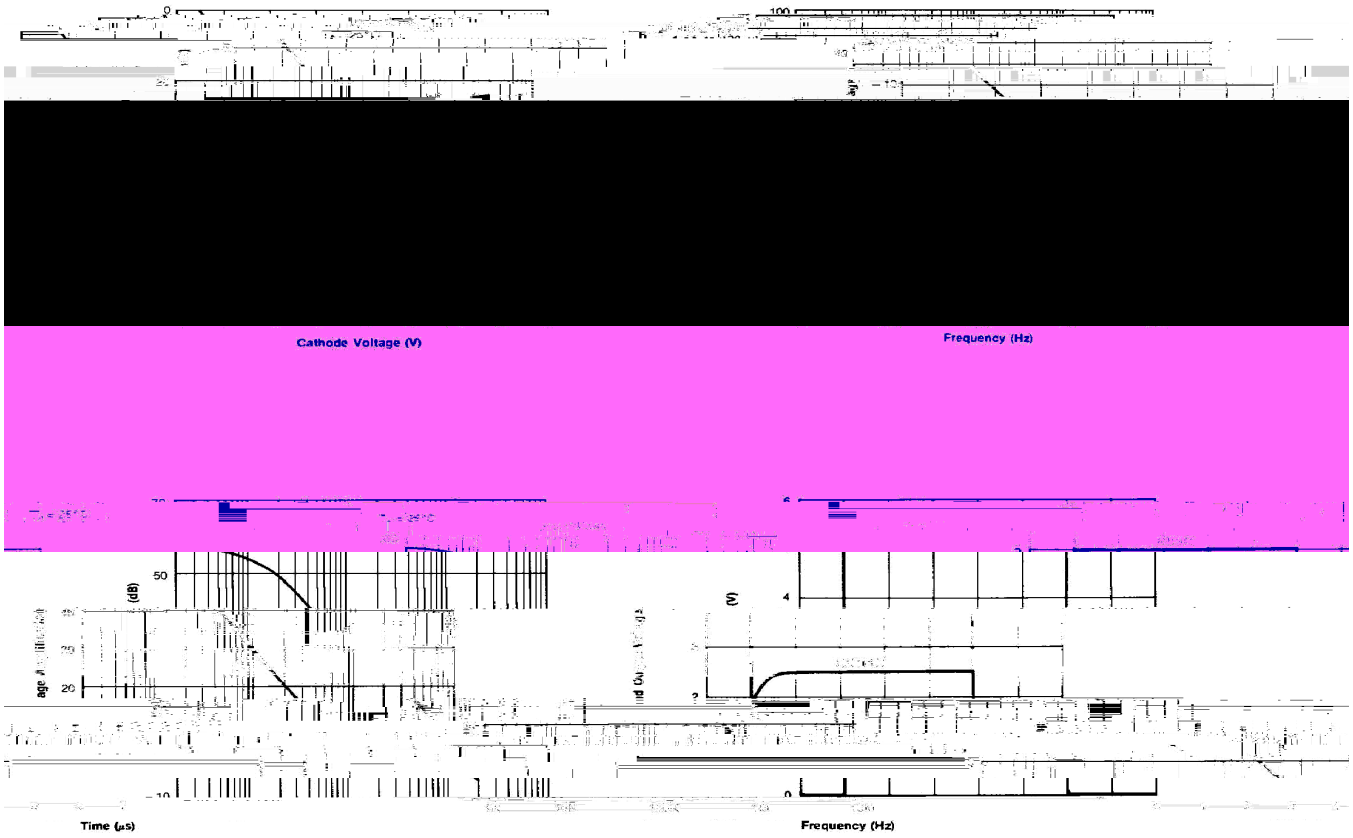
/ h_{FE} Classifications & Marking

Marking	BR431

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		

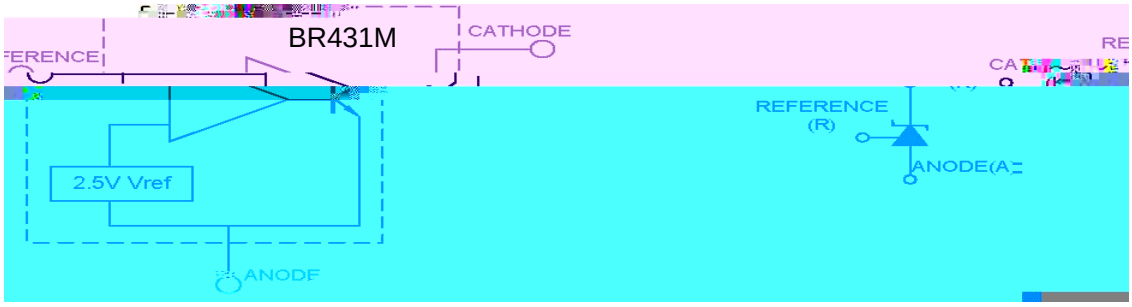
/ Electrical Characteristic Curve



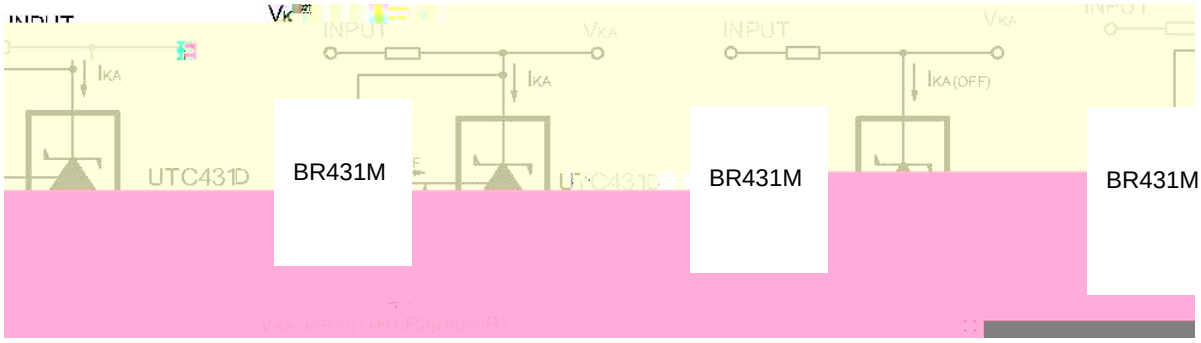


& Test circuits&Typical Application

BLOCK DIAGRAM:



TEST CIRCUITS:

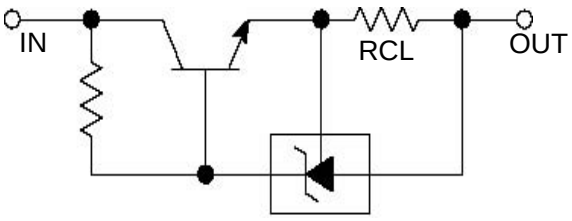


Test Circuit For VKA=VREF Test Circuit for VKA VREF Test Circuit For IKA(OFF)

TYPICAL APPLICATION:

Shutdown Regulator Higher-current Shunt

$Io=V_{REF}/RCL+I_{KA}$

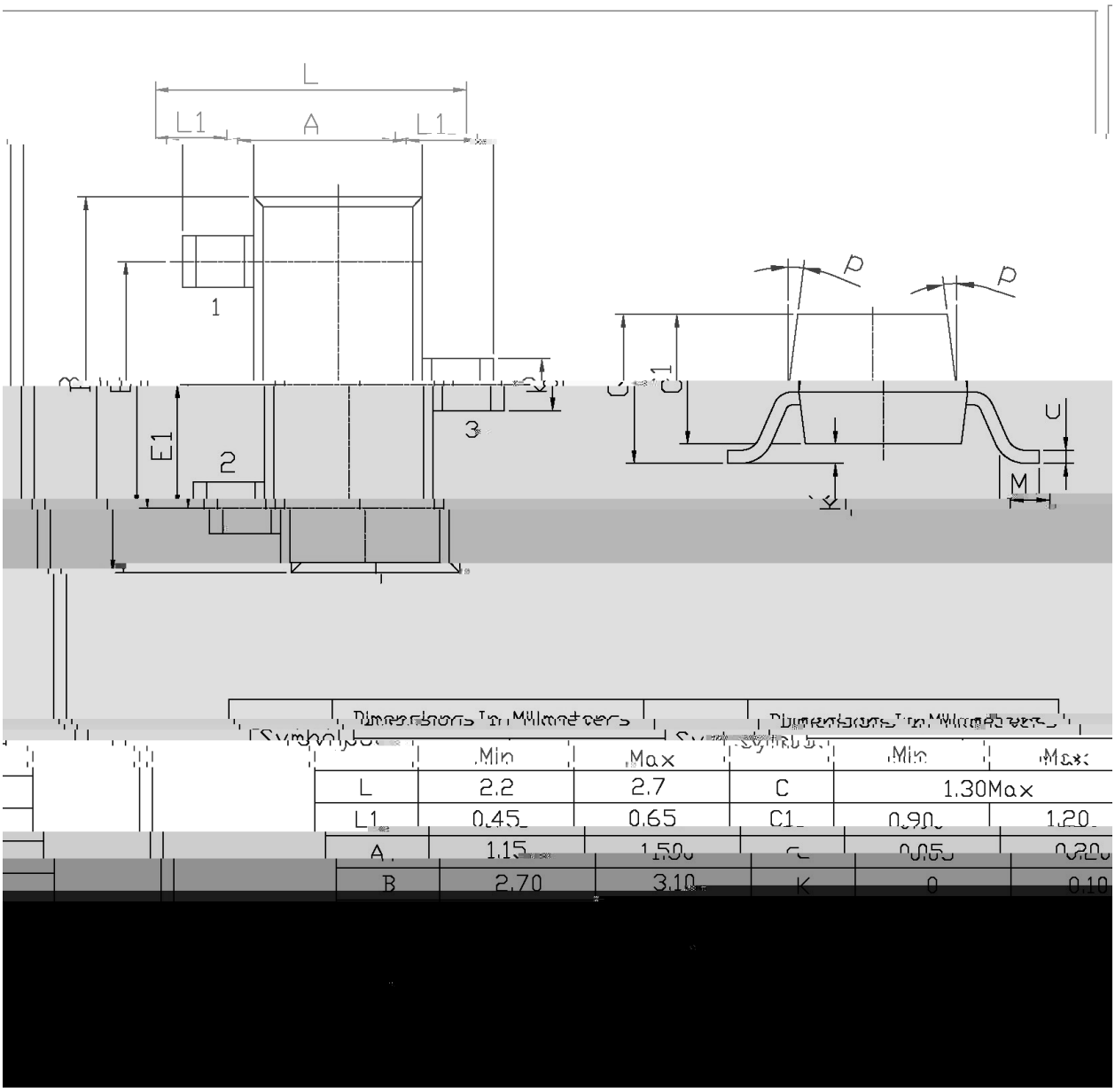


Constant Current Source BR431M Series Pass Regulator

/ Package Dimensions

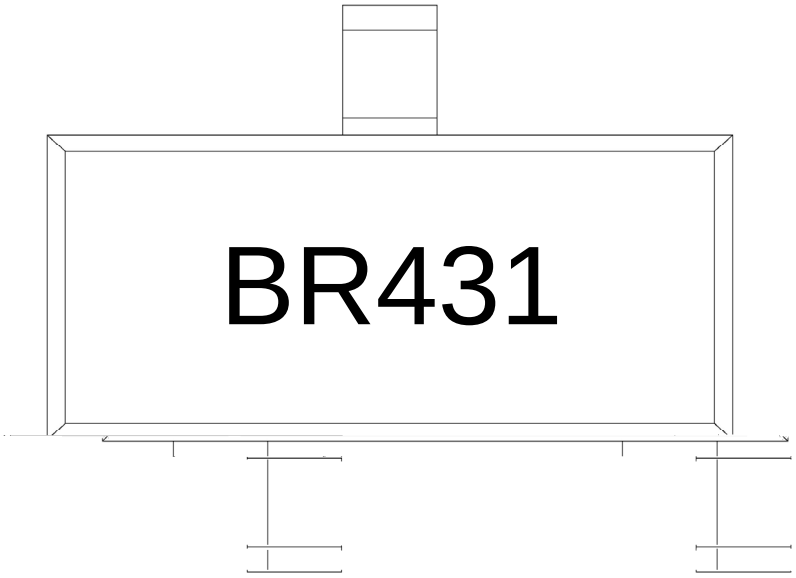
SOT-23

单位：mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	C2	0.05	0.20
B	2.70	3.10	K	0	0.10

/ Marking Instructions



BR

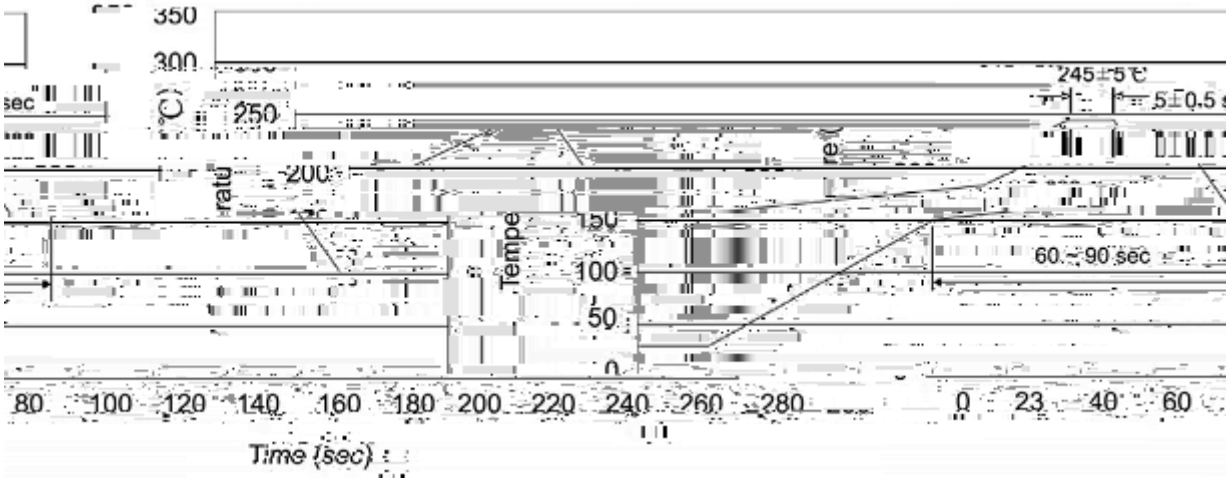
431

Note:

BR: Company Code.

431: Product Type.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1 25 150 60 90sec;

1.Preheating:25~150 , 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.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm^3)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices