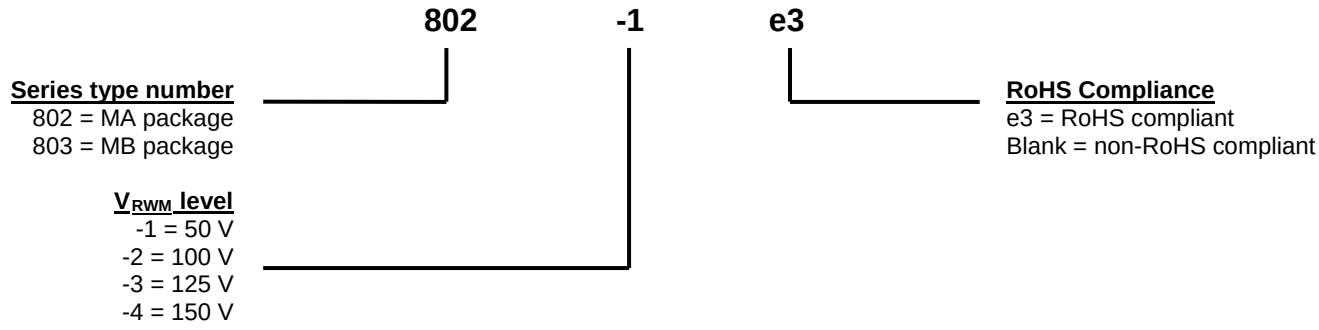
MECHANICAL and PACKAGING

- CASE: Aluminum.
- TERMINALS: Tin/lead (Sn/Pb) or RoHS compliant matte tin.
- MARKING: Alternating current input: AC
  Cathode positive output: +
  Anode negative: -
  Part number is printed on the body
- WEIGHT: Approximately 20 grams for 802 series and 10 grams for 803 series
- See Package Dimensions on last page.

PART NOMENCLATURE



SYMBOLS & DEFINITIONS

Symbol	Definition
I_{FSM}	Surge Peak Forward Current: The forward current including all nonrepetitive transient currents but excluding all repetitive transients (ref JESD282-B)
I_O	Average Rectified Output Current: The Output Current averaged over a full cycle with a 50 Hz or 60 Hz sine-wave input and a 180 degree conduction angle.
V_{FM}	Maximum Forward Voltage: The maximum forward voltage the device will exhibit at a specified current.
I_{RM}	Maximum Reverse Current: The maximum reverse (leakage) current that will flow at the specified voltage and temperature.
V_{RWM}	Working Peak Reverse Voltage: The peak voltage excluding all transient voltages (ref JESD282-B). Also sometimes known historically as PIV.
t_{rr}	Reverse Recovery Time: The time interval between the instant the current passes through zero when changing from the forward direction to the reverse direction and a specified decay point after a peak reverse current occurs.

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ELECTRICAL CHARACTERISTICS

PART NUMBER	MAX FORWARD VOLTAGE PER LEG V_{FM} (Note 1)	MAX REVERSE PEAK CURRENT I_{RM} @ V_{RWM}		MAX REVERSE RECOVERY TIME t_{rr} I_F = 0.5 A, I_{RM} = 1.0 A, $I_{R(REC)}$ = 0.250 A
	@ 25 ºC	@ 25 ºC	@ 100 ºC	
	Volts	µA	µA	ns
802	0.95 @ 10 A	20	1000	50
803	0.95 @ 6 A	10	300	50

NOTES: 1. Pulse test: Pulse width 300 µsec, duty cycle 2%.

PART NUMBER		WORKING PEAK REVERSE VOLTAGE V_{RWM}	MINIMUM BREAKDOWN VOLTAGE $V_{(BR)}$
		Volts	Volts
802-1	803-1	50	55.0
802-2	803-2	100	110.0
802-3	803-3	125	137.5
802-4	803-4	150	165.0

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GRAPHS

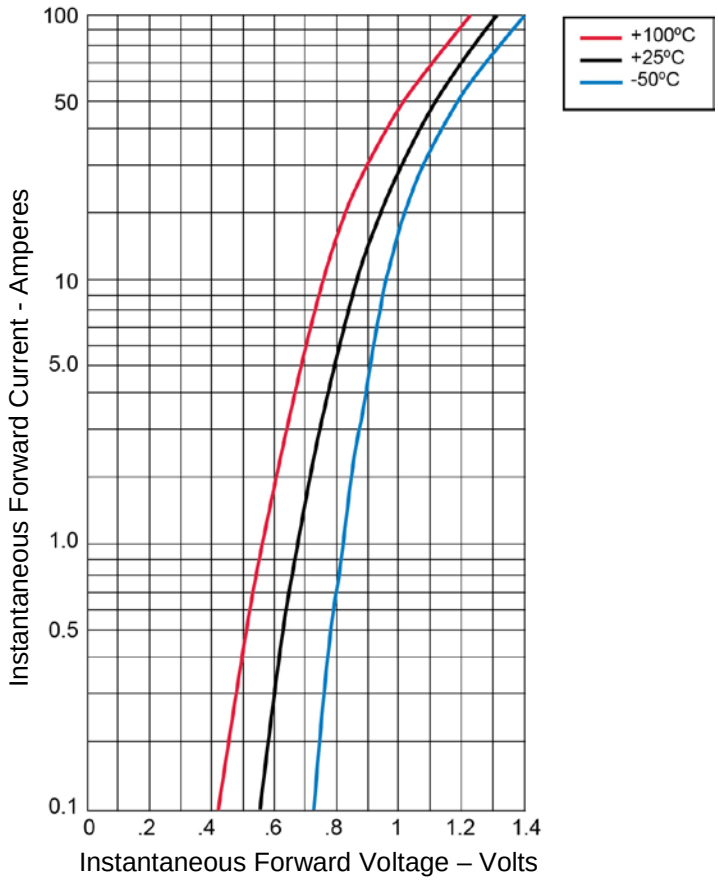

FIGURE 1

Typical Forward Characteristics – **Per Leg 802 Series**

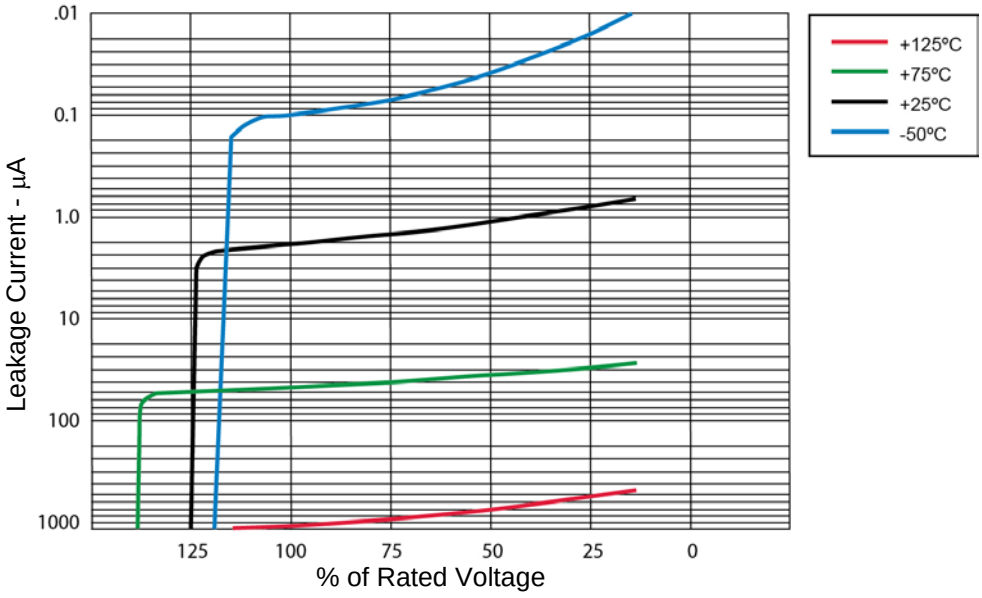

FIGURE 2

Typical Reverse Leakage Current – **Per Leg 802 Series**

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GRAPHS (continued)

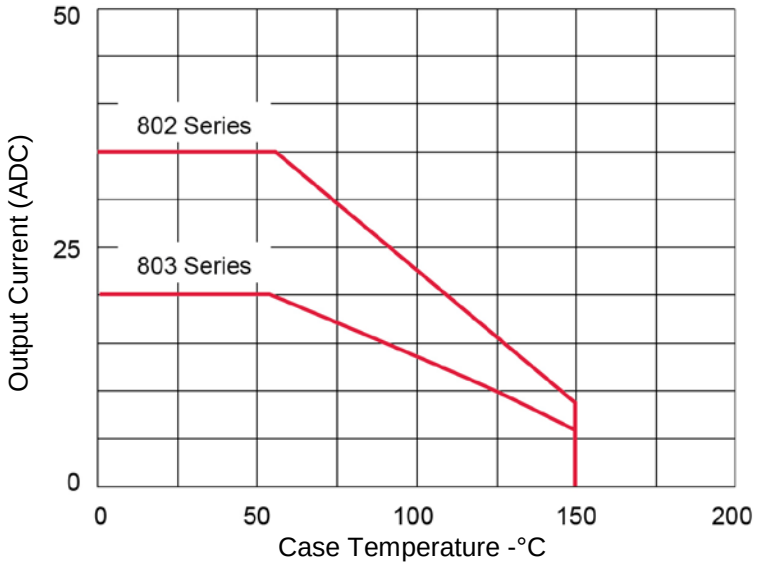

FIGURE 3
Current Derating

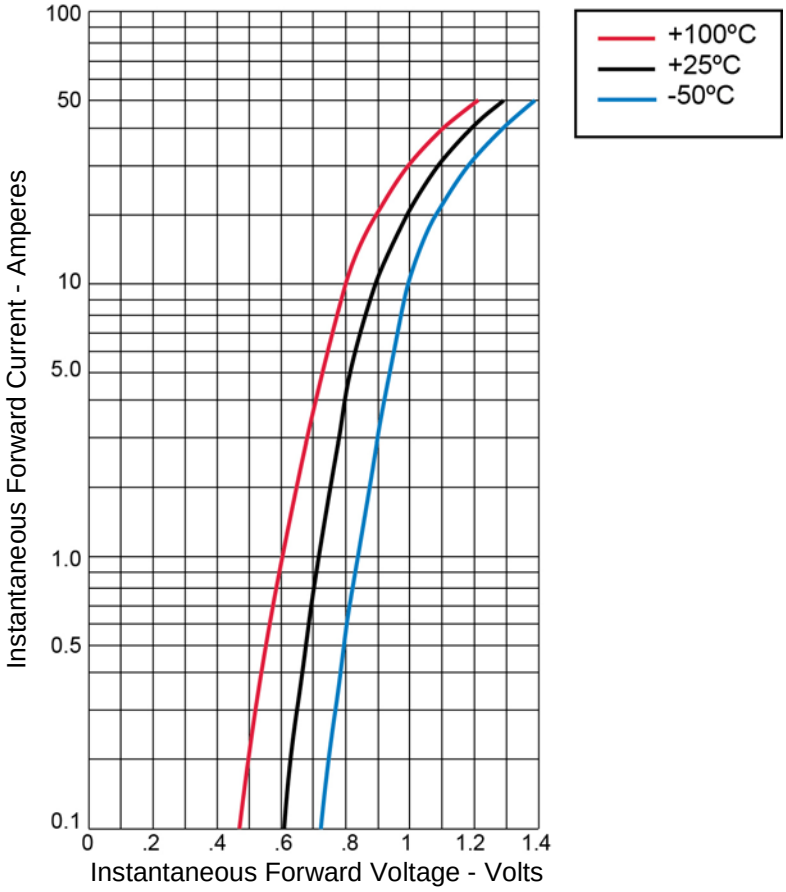

FIGURE 4
Typical Forward Characteristics – **Per Leg 803 Series**

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GRAPHS (continued)

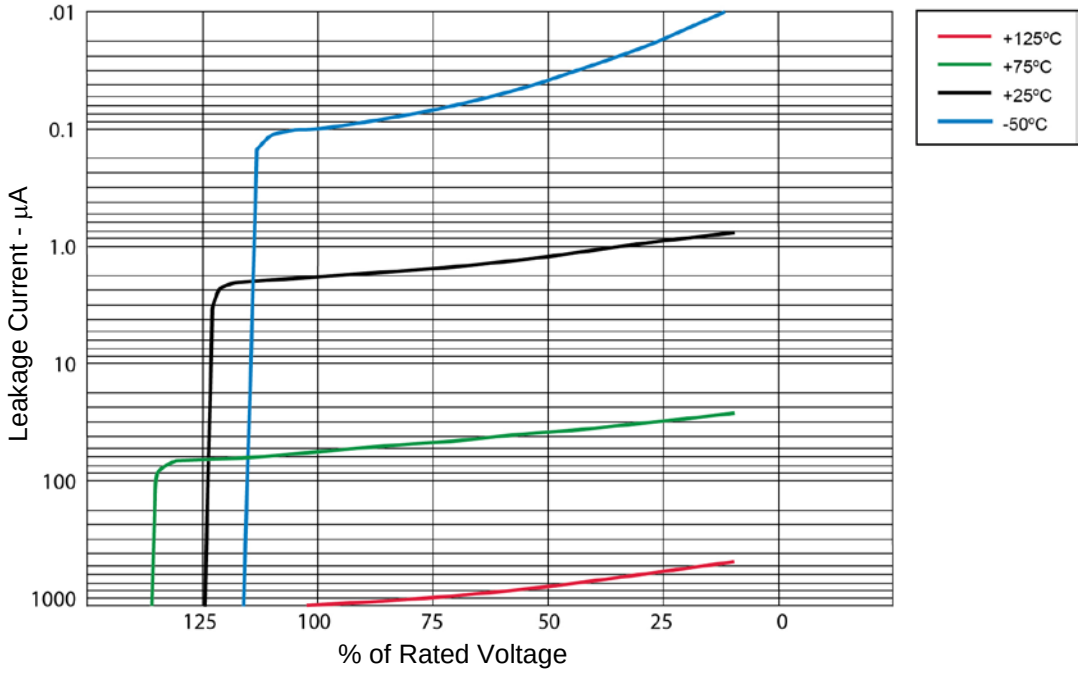

FIGURE 5
Typical Reverse Leakage Current – **Per Leg 803 Series**

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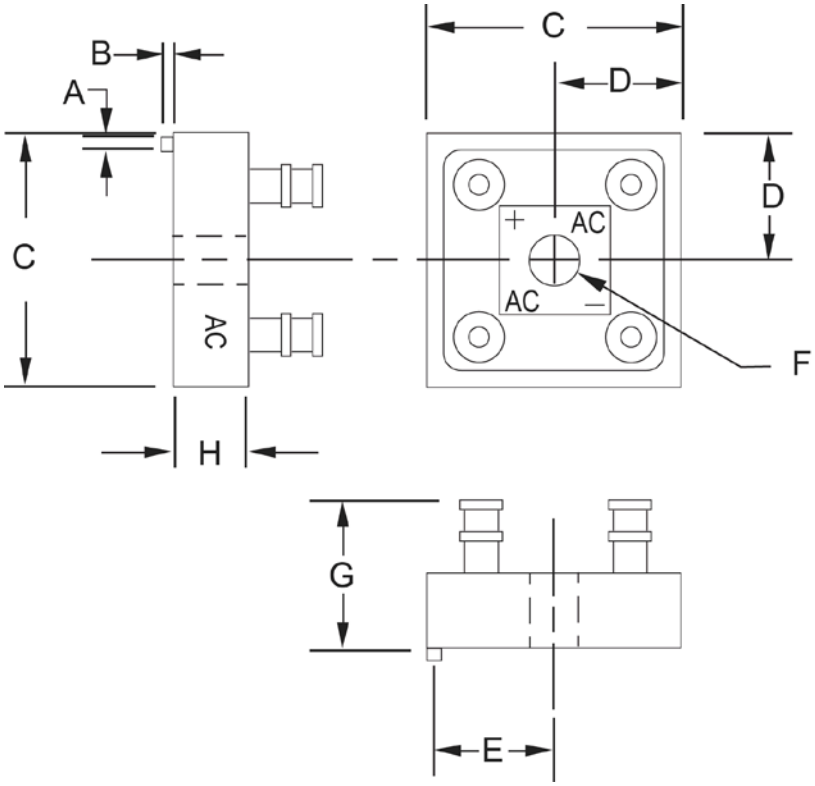
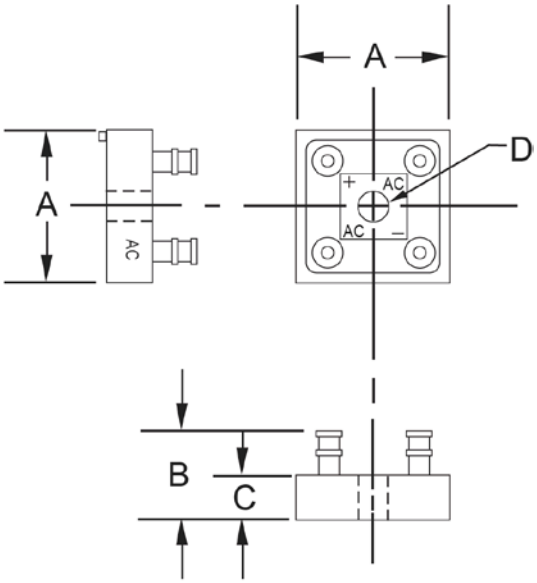
PACKAGE DIMENSIONS

802 SERIES



803 SERIES



Ltr	Dimensions			
	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.056	0.066	1.412	1.68
B	0.052	0.072	1.32	1.83
C	1.115	1.135	28.32	28.83
D	0.552	0.572	14.02	14.53
E	0.490	0.510	12.45	12.95
F	0.180	0.200	4.57	5.08
G	-	0.750	-	19.05
H	0.302	0.322	7.67	8.18

Ltr	Dimensions			
	Inch		Millimeters	
	MIN	MAX	MIN	MAX
A	0.735	0.755	18.67	19.18
B	-	0.570	-	14.48
C	0.230	0.250	5.74	6.25
D	0.139	0.149	3.30	3.81

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