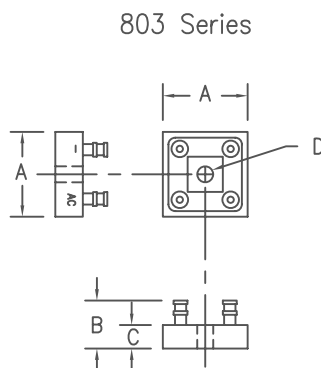
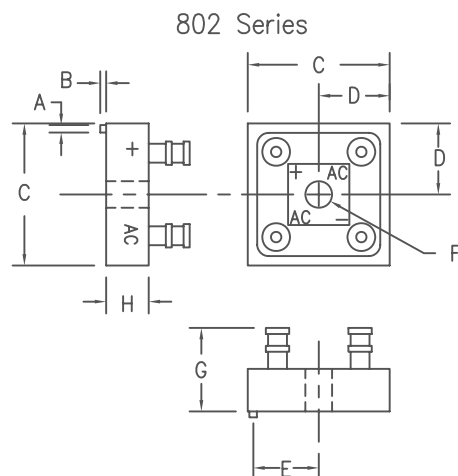


Single Phase Ultrafast Bridges 802 & 803



802 Series

Dim.	Inches	Millimeter
A	.056-.066	1.42-1.68
B	.052-.072	1.32-1.83
C	1.115-1.135	28.32-28.83
D	.552-.572	14.02-14.53
E	.490-.510	12.45-12.95
F	.180-.200 DIA.	4.57-5.08 DIA.
G	.750 MAX.	19.05 MAX.
H	.302-.322	7.67-8.18

803 Series

Dim.	Inches	Millimeter
A	.735-.755	18.67-19.18
B	.570 MAX.	14.48 MAX.
C	.250 MAX.	5.74-6.25
D	.139-.149 DIA.	3.30-3.81 DIA.

Microsemi Catalog Number

802-1, 803-1
802-2, 803-2
802-3, 803-3
802-4, 803-4

Repetitive Peak Reverse Voltage

50V
100V
125V
150V

- Current ratings to 35A
- VRRM to 150V
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 25A
- Recovery time: 50nS
- Electrically isolated Aluminum case
- MIL-PRF-19500 Similarity
- Sn/Pb terminations

Electrical Characteristics

		802	803
Maximum DC output current— $T_C = 55^\circ\text{C}$	I_O	35A	22.5A
Maximum DC output current— $T_C = 100^\circ\text{C}$	I_O	20A	16A
Maximum surge current	I_{FSM}	250A	125A
Max peak forward voltage per leg @ 25°C	V_{FM}	.95V @ 10A*	.95V @ 6A*
Max peak reverse current per leg @ 25°C , V_{RRM}	I_{RM}	20uA	10uA
Max peak reverse current per leg @ 100°C , V_{RRM}	I_{RM}	1000uA	300uA
Max. recovery time per leg 1A, 1A, 0.5A	t_{rr}	50nS	50nS

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-65°C to 150°C
Operating temperature range	T_J	-65°C to 150°C
Maximum thermal resistance — 802 series	$R_{\theta JC}$	2.0°C/W junction to case
Maximum thermal resistance — 803 series	$R_{\theta JC}$	4.0°C/W junction to case
Maximum thermal resistance — 802 series	$R_{\theta JA}$	20°C/W 802 series
Maximum thermal resistance — 803 series	$R_{\theta JA}$	25°C/W 803 series
Weight — typical 802 series		20 grams
Weight — typical 803 series		10 grams



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www.microsemi.com

06-11-07 Rev. 3

802 & 803

Figure 1
Typical Forward Characteristics – Per Leg
802 Series

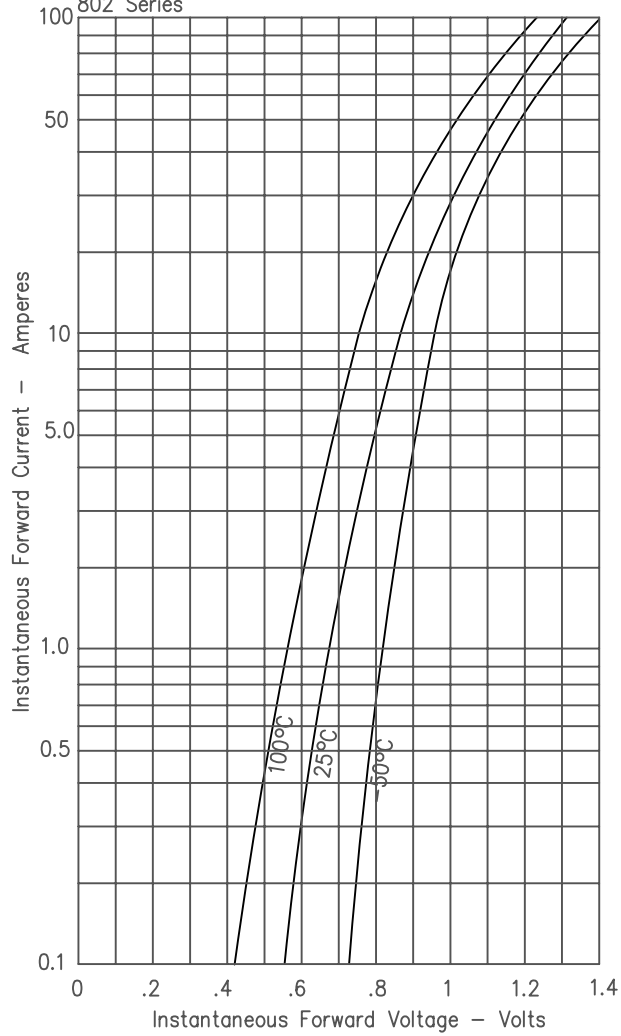


Figure 3
Current Derating

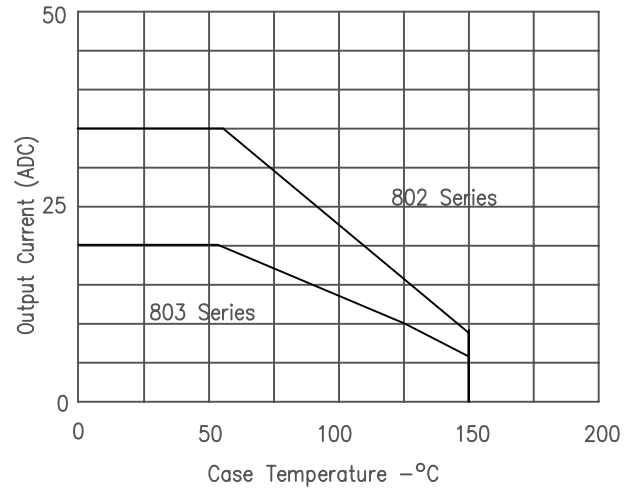
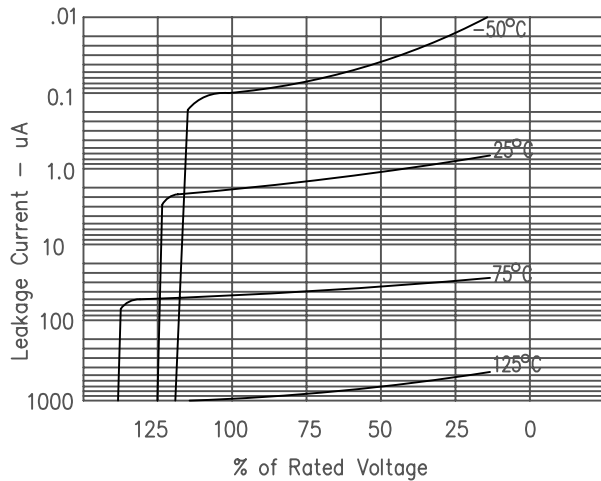


Figure 2
Typical Reverse Leakage Current – Per Leg
802 Series



802 & 803

Figure 1
Typical Forward Characteristics – Per Leg
803 Series

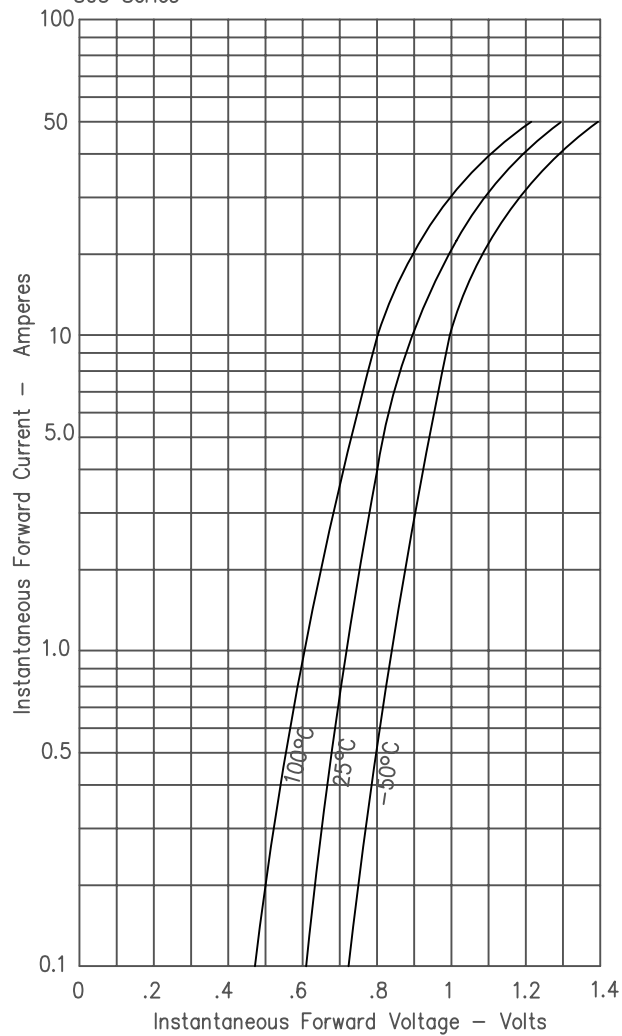


Figure 2
Typical Reverse Leakage Current – Per Leg
803 Series

