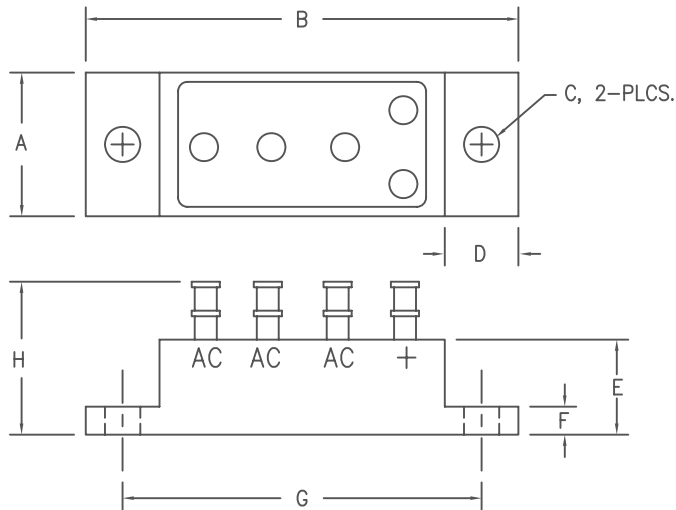


# Three Phase Ultrafast Bridges 800 & 801 Series



Dim.	Inches	Millimeter
A	.740-.760	18.80-19.30
B	2.240-2.260	56.90-57.40
C	.164-.174 DIA.	4.17-4.42 DIA.
D	.370-.390	9.40-9.91
E	.486-.506	12.34-12.85
F	.115-.135	2.92-3.43
G	1.870-1.880	47.50-47.75
H	.820 MAX.	20.83 MAX.

Microsemi Catalog Number	Working Peak Reverse Voltage
800-1, 801-1	50V
800-2, 801-2	100V
800-3, 801-3	125V
800-4, 801-4	150V

- Current ratings to 40A
- VRRM to 150V
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 250A
- Recovery time: 25nS
- Electrically isolated Aluminum case
- MIL-PRF-19500 Similarity
- SN/Pb terminations

## Electrical Characteristics

	800	801
Maximum DC output current— $T_C = 55^\circ\text{C}$	$I_O$ 40A	25A
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  $\mu\text{sec}$ , 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 - 800 series	$R_{\theta JC}$	1.5°C/W junction to case
Maximum thermal resistance - 801 series	$R_{\theta JC}$	3.0°C/W junction to case
Max. thermal resistance junction to ambient	$R_{\theta JA}$	20°C/W
Weight		30 grams



SCOTTSDALE

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06-01-07 Rev. 3

# 800 & 801

Figure 1  
Typical Forward Characteristics – Per Leg  
800 Series

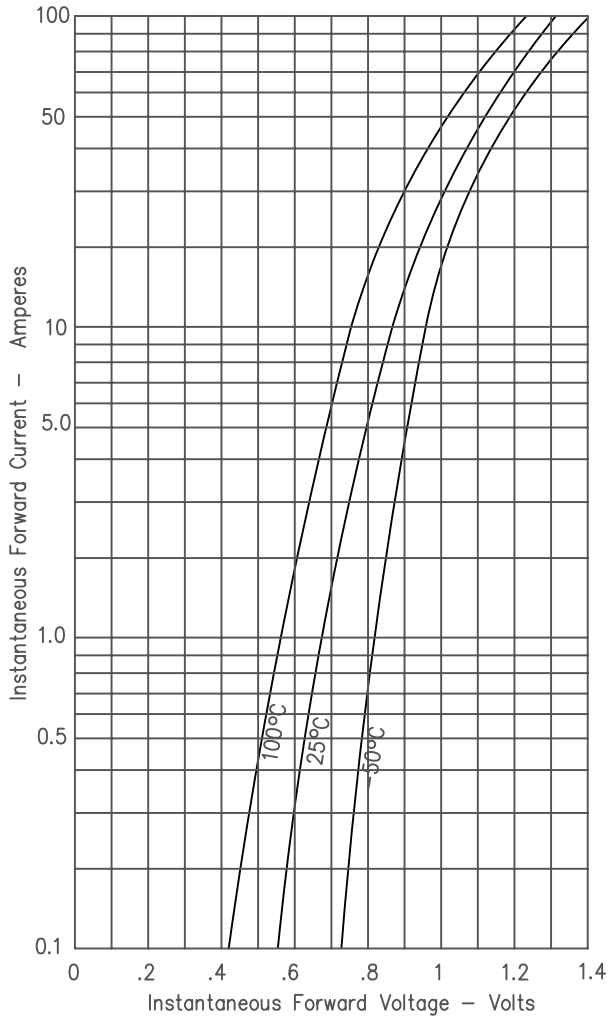


Figure 3  
Current Derating

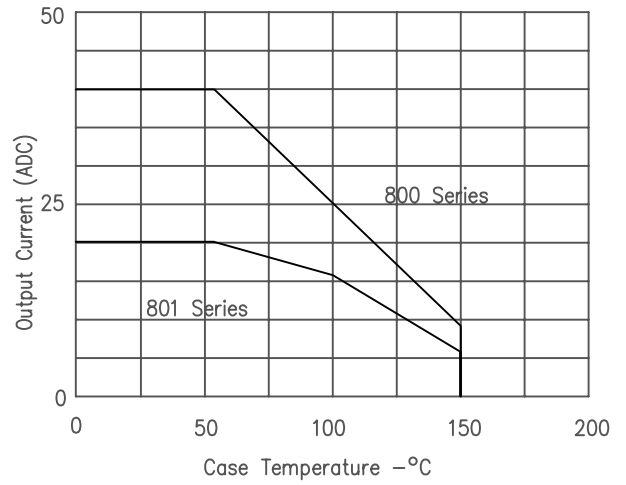
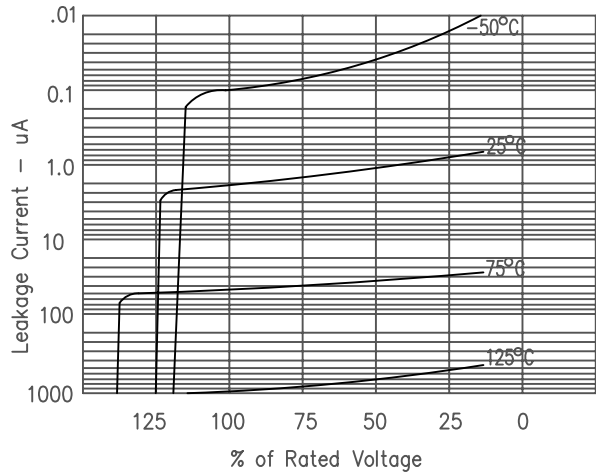


Figure 2  
Typical Reverse Leakage Current – Per Leg  
800 Series



# 800 & 801

Figure 1  
Typical Forward Characteristics - Per Leg  
801 Series

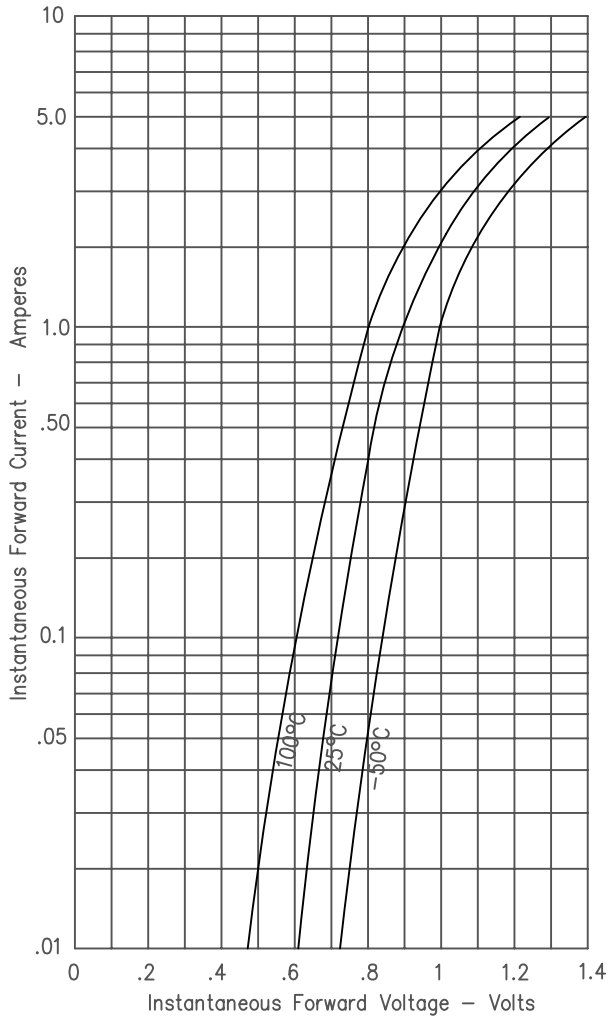


Figure 2  
Typical Reverse Leakage Current - Per Leg  
801 Series

