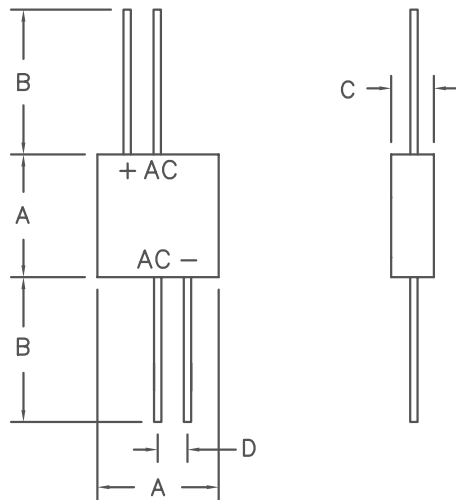


# Single Phase Bridges Standard and Fast Recovery 697 & 698 Series



Dim.	Inches	Millimeter
A	.50±.01	12.70±.25
B	1.0 MIN.	25.4 MIN.
C	.250 MAX.	6.35 MAX.
D	.150 TYP.	3.81 TYP.

Leads—tinned copper .032" DIA.

### MARKING:

Alternating Current Input: AC  
Cathode Positive Output: +  
Anode Negative: -  
Part number is printed on the body.

Microsemi Catalog Number Standard Recovery	Microsemi Catalog Number Fast Recovery	Working Peak Reverse Voltage V <sub>RRM</sub>
697-1	698-1	100V
697-2	698-2	200V
697-3	698-3	300V
697-4	698-4	400V
697-5	698-5	500V
697-6	698-6	600V

- Current ratings to 7.5A
- V<sub>RRM</sub> 600 Volts
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 80A
- Recovery times to 500nS
- Controlled avalanche characteristics
- MIL-PRF-19500 Similarity
- Sn/Pb terminations

### Electrical Characteristics

	697	698
Maximum DC output current—T <sub>C</sub> = 55°C	I <sub>O</sub> 7.5A	7.0A
Maximum DC output current—T <sub>A</sub> = 25°C	I <sub>O</sub> 2.5A	2.25A
Maximum surge current—T <sub>C</sub> = 100°C	I <sub>FSM</sub> 70A	80A
Max peak forward voltage per leg @ 25°C	V <sub>FM</sub> 1.0V @ 2A*	1.1V @ 2A*
Max peak reverse current @ 25°C, at V <sub>RRM</sub>	I <sub>RM</sub> 5uA	5uA
Max peak reverse current @ 100°C, at V <sub>RRM</sub>	I <sub>RM</sub> 200uA	200uA
Max. recovery time 1A, 1A, 0.5A	t <sub>rr</sub> ---	500nS

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

### Thermal and Mechanical Characteristics

Storage temp range	T <sub>STG</sub>	-65°C to 150°C
Operating junction temp range	T <sub>J</sub>	-65°C to 150°C
Max thermal resistance	R <sub>θJC</sub>	10°C/W
Max thermal resistance junction to ambient	R <sub>θJA</sub>	32°C/W
Weight—typical		4 grams

3-31-05 Rev. 2

# 697 & 698

Figure 1  
Typical Forward Characteristics – Per Leg  
697 Series

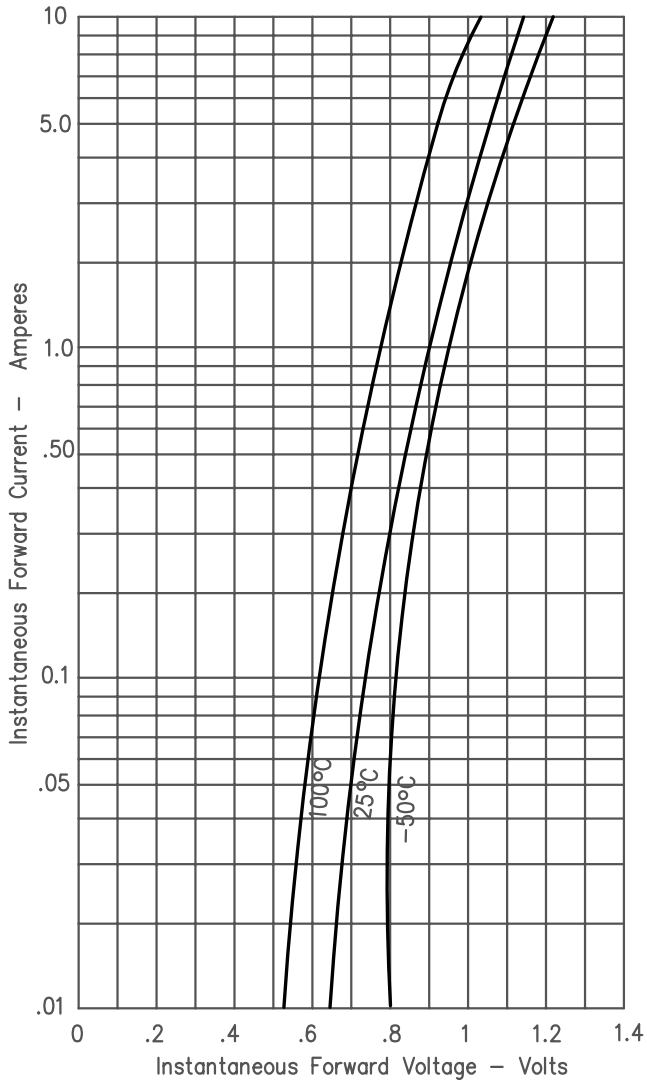


Figure 3  
Typical Forward Characteristics – Per Leg  
698 Series

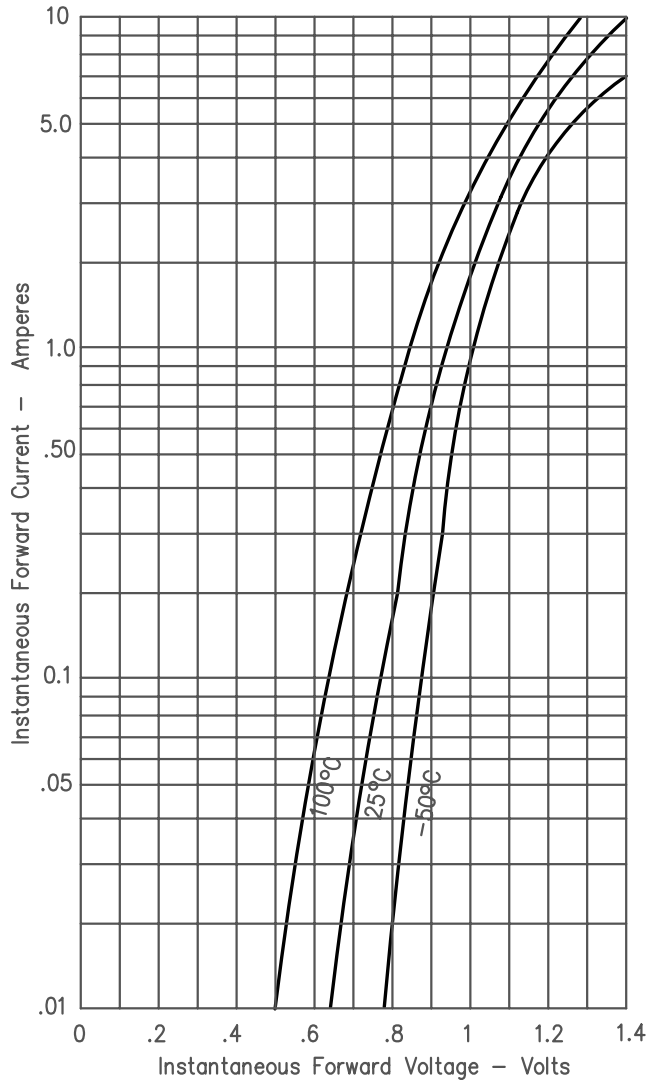


Figure 2  
Typical Reverse Leakage Current – Per Leg

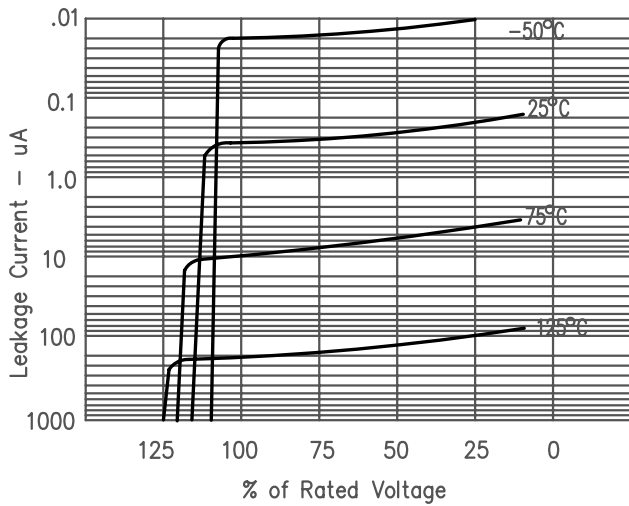


Figure 4  
Current Derating

