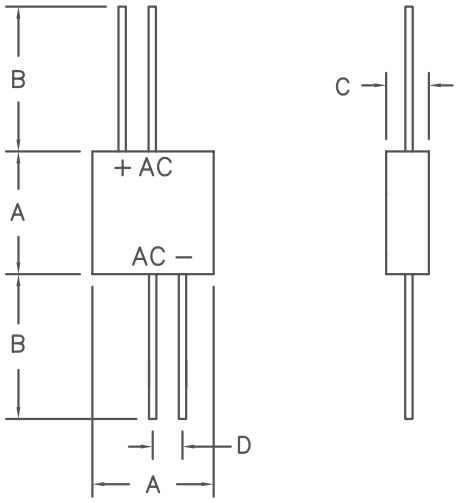
Single Phase Bridges
Standard and Fast Recovery
697 & 698 Series



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_{RRM}
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_{RRM} 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_C = 55°C	I_O	7.5A	7.0A
Maximum DC output current–T_A = 25°C	I_O	2.5A	2.25A
Maximum surge current–T_C = 100°C	I_{FSM}	70A	80A
Max peak forward voltage per leg @ 25°C	V_{FM}	1.0V @ 2A*	1.1V @ 2A*
Max peak reverse current @ 25°C, at Vrrm	I_{RM}	5uA	5uA
Max peak reverse current @ 100°C, at Vrrm	I_{RM}	200uA	200uA
Max. recovery time 1A, 1A, 0.5A	t_{rr}	---	500nS

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	–65°C to 150°C
Operating junction temp range	T_J	–65°C to 150°C
Max thermal resistance	$R_{\Theta JC}$	10°C/W
Max thermal resistance junction to ambient	$R_{\Theta JA}$	32°C/W
Weight–typical		4 grams

3–31–05 Rev. 2

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Figure 1
Typical Forward Cheracteristics – Per Leg
697 Series

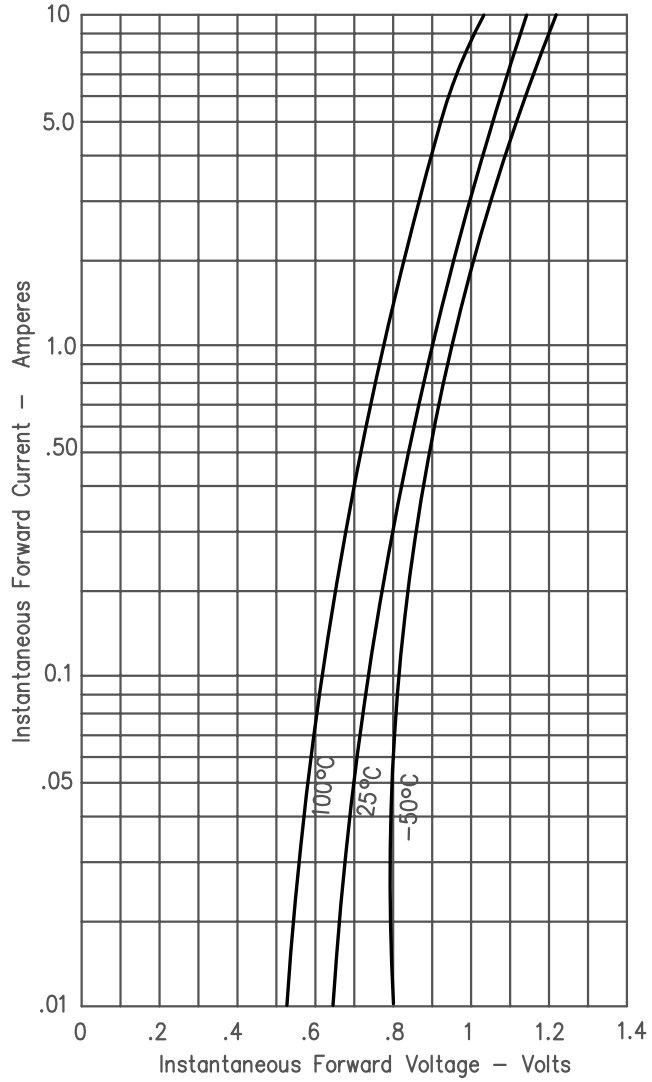


Figure 3
Typical Forward Cheracteristics – Per Leg
698 Series

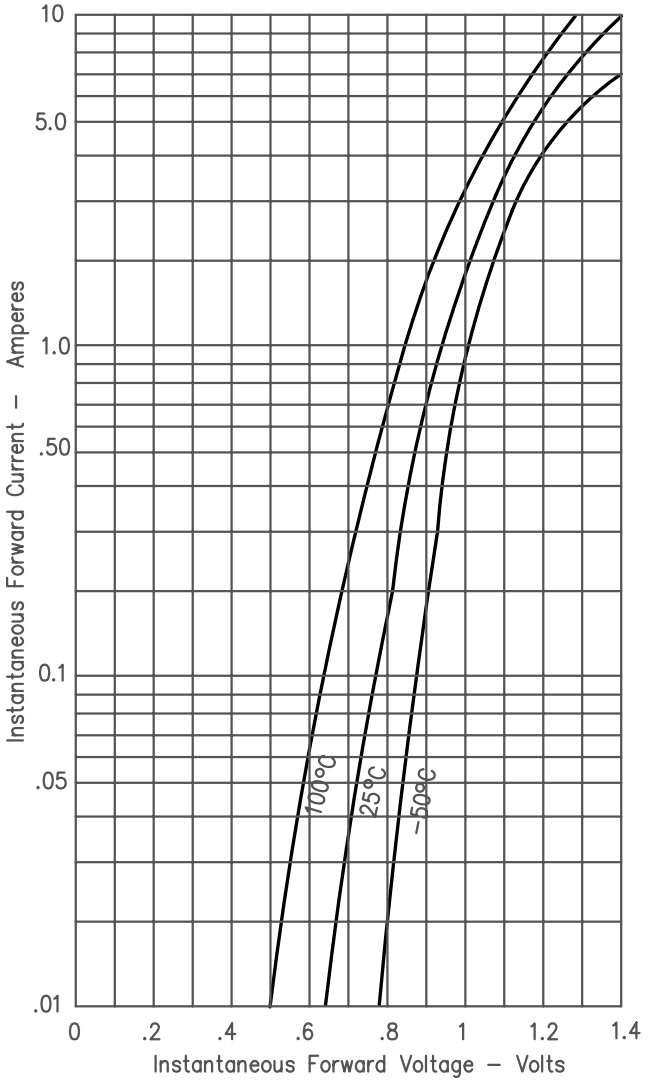


Figure 2
Typical Reverse Leakage Current – Per Leg

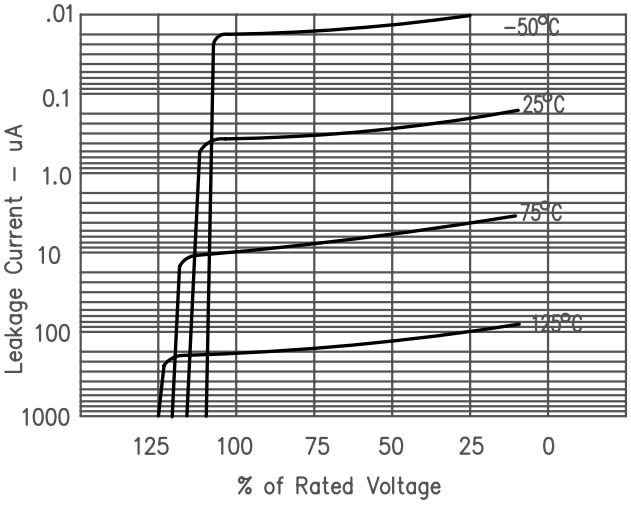
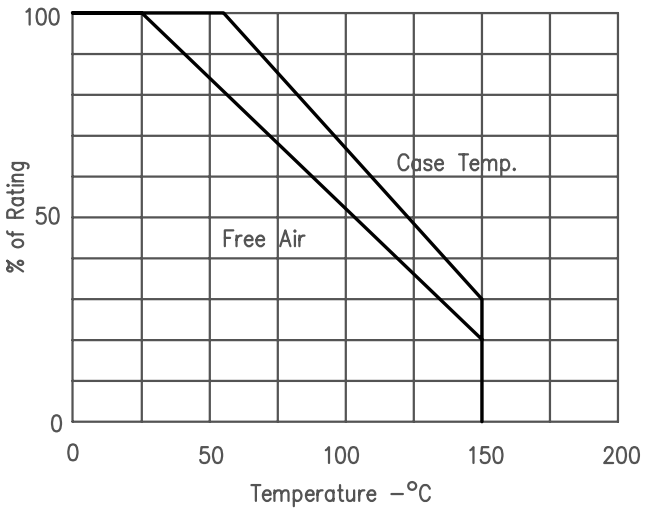


Figure 4
Current Derating



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