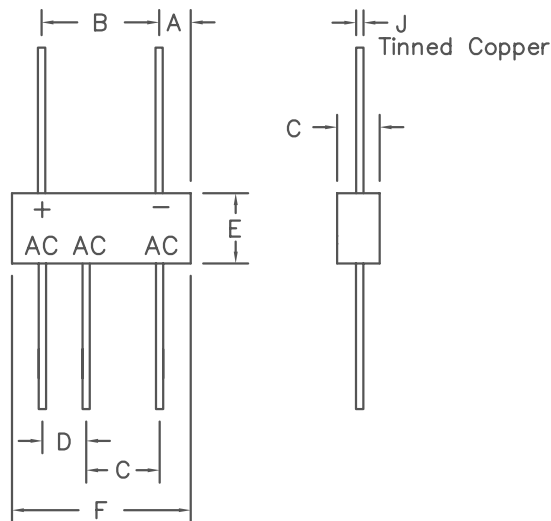


# Three Phase Bridges Standard and Fast Recovery 700 & 701 Series



| Dim. | Inches     | Millimeter |
|------|------------|------------|
| A    | .198       | 5.03       |
| B    | .621       | 15.77      |
| C    | .365       | 9.27       |
| D    | .255       | 6.48       |
| E    | .465 MAX.  | 11.81 MAX. |
| F    | 1.030 MAX. | 26.16 MAX. |
| G    | .220 MAX.  | 5.59 MAX.  |
| H    | .875 MIN.  | 22.23 MIN. |
| J    | .028 DIA.  | 0.71 DIA.  |

**MARKING:**

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

| Microsemi Catalog Number<br>Standard Recovery | Microsemi Catalog Number<br>Fast Recovery | Working Peak Reverse Voltage<br>VRRM |
|---|---|--------------------------------------|
| 700-1   | 701-1                                     | 100V                                 |
| 700-2   | 701-2                                     | 200V                                 |
| 700-3   | 701-3                                     | 300V                                 |
| 700-4   | 701-4                                     | 400V                                 |
| 700-5   | 701-5                                     | 500V                                 |
| 700-6   | 701-6                                     | 600V                                 |

- Current ratings to 2.5A
- VRRM 600 Volts
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 25A
- Recovery times to 500nS
- Controlled avalanche characteristics
- MIL-PRF-19500 Similarity
- Sn/Pb terminations

## Electrical Characteristics

|  | 700          | 701          |
|--|--------------|--------------|
| Maximum DC output current— $T_A = 25^\circ\text{C}$      | 2.5A         | 2.25A        |
| Maximum surge current                                    | 25A          | 20A          |
| Max peak forward voltage per leg @ $25^\circ\text{C}$    | 1.0V @ 0.5A* | 1.1V @ 0.5A* |
| Max peak reverse current @ $25^\circ\text{C}$ , at Vrrm  | 2uA          | 2uA          |
| Max peak reverse current @ $100^\circ\text{C}$ , at Vrrm | 100uA        | 100uA        |
| Max. recovery time 10mA, 10mA, 5mA                       | ---          | 500nS        |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

|  |               |                |
|--|---------------|----------------|
| Storage temp range                         | TSTG          | -65°C to 150°C |
| Operating junction temp range              | TJ            | -65°C to 150°C |
| Max thermal resistance junction to ambient | R $\theta$ JA | 25°C/W         |
| Weight—typical                             |               | 3.5 grams      |

4-11-05 Rev. 3

# 700 & 701

Figure 1  
Typical Forward Characteristics – Per Leg  
700 Series

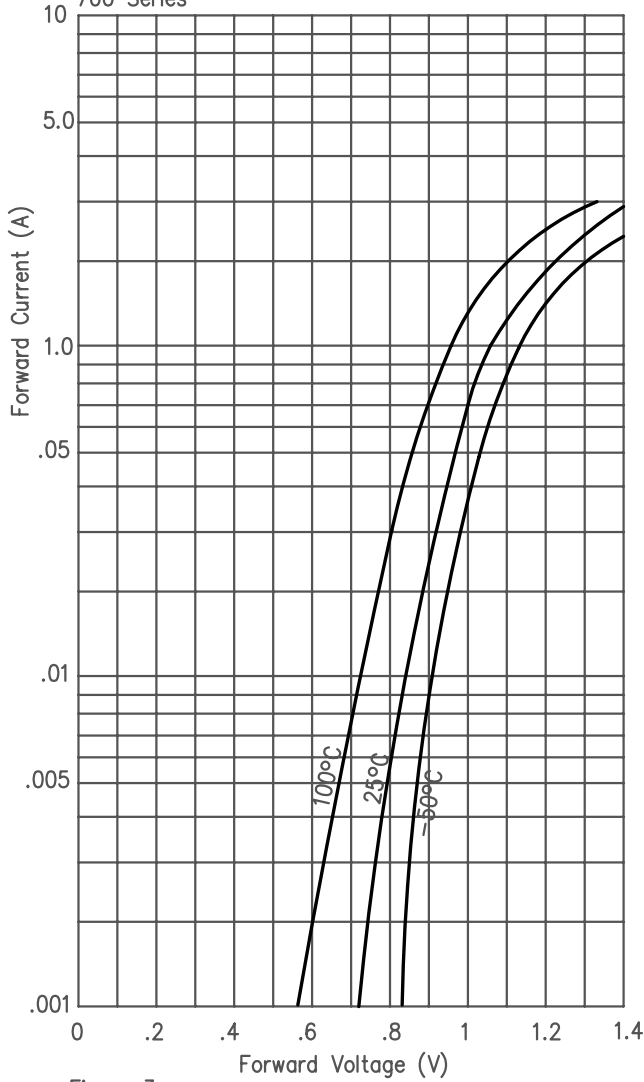


Figure 2  
Typical Forward Characteristics – Per Leg  
701 Series

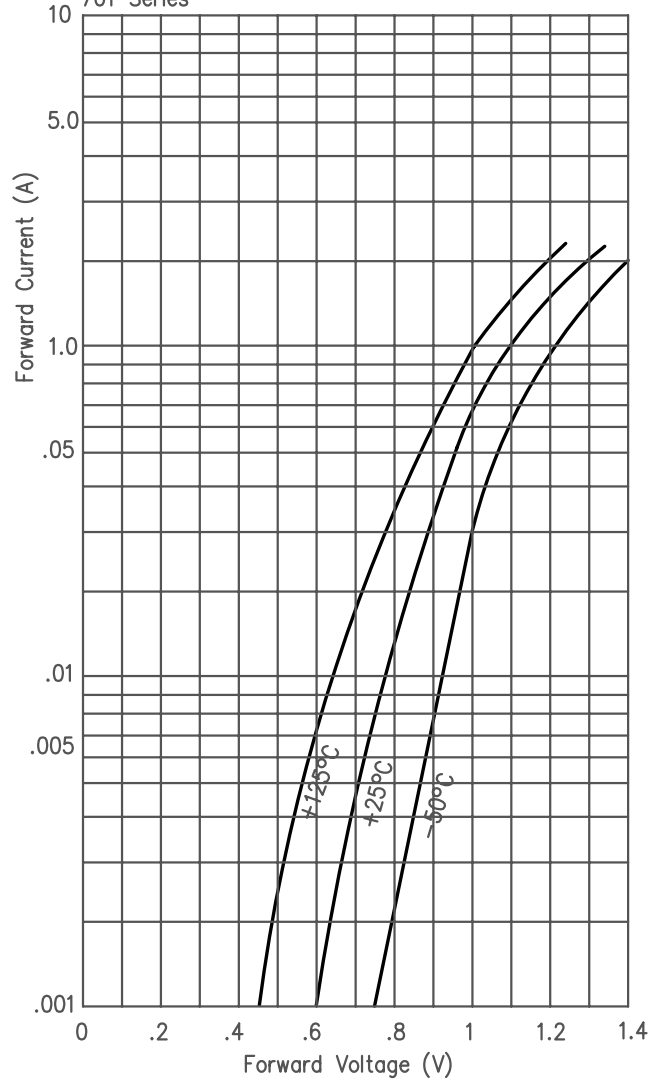


Figure 3  
Typical Leakage Current – Per Leg

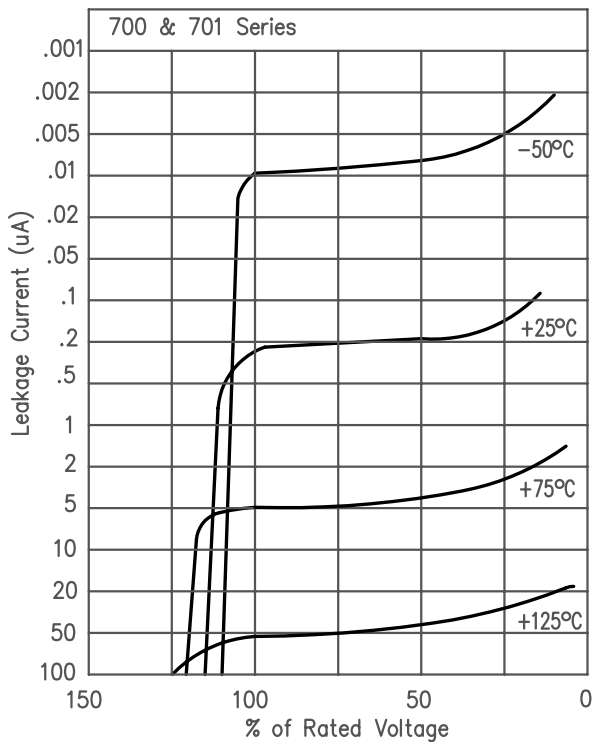


Figure 4  
Current Derating

