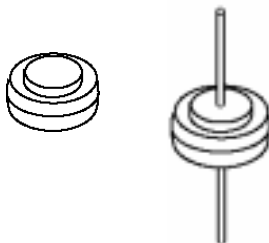
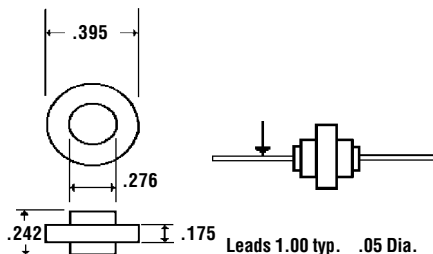
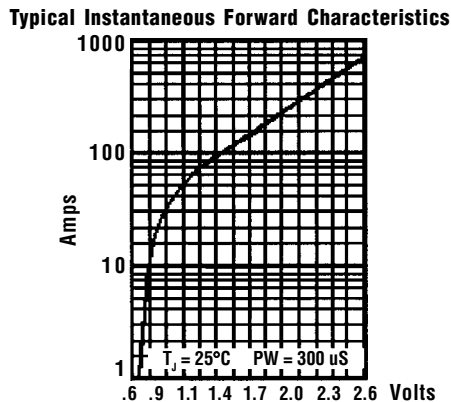
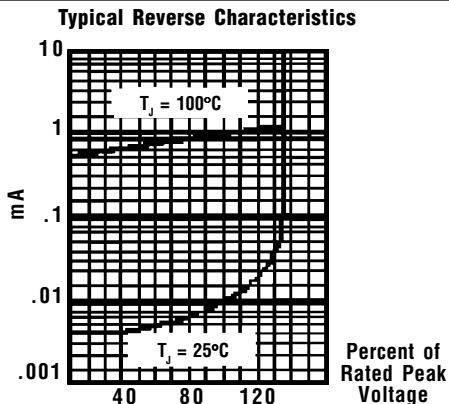
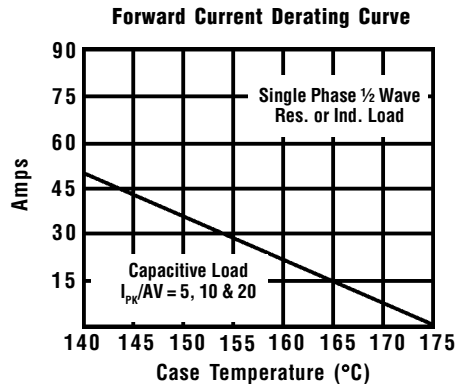
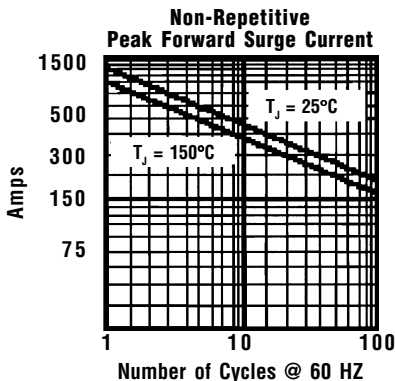
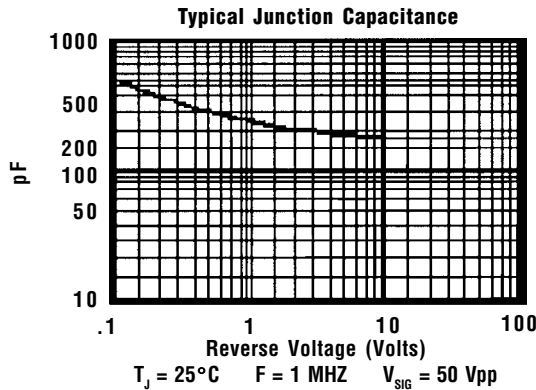


**Description**

**Mechanical Dimensions**

**Features**

- **LOW COST**
- **HIGH SURGE CAPABILITY**
- **DIFFUSED JUNCTION**
- **LOW LEAKAGE CURRENT**
- **HIGH TEMPERATURE CAPABILITY**
- **MEETS UL SPECIFICATION 94V-0**

| <b>Electrical Characteristics @ 25°C.</b>   | <b>FR5001 . . . 5004 Series</b> |               |               |               | <b>Units</b> |
|---|---------------------------------|---------------|---------------|---------------|--------------|
| <b>Maximum Ratings</b>  | <b>FR5001</b>                   | <b>FR5002</b> | <b>FR5003</b> | <b>FR5004</b> |              |
| Peak Repetitive Reverse Voltage... $V_{RRM}$  | 100                             | 200           | 300           | 400           | Volts        |
| RMS Reverse Voltage... $V_{R(rms)}$   | 70                              | 140           | 210           | 280           | Volts        |
| DC Blocking Voltage... $V_{DC}$   | 100                             | 200           | 300           | 400           | Volts        |
| Average Forward Rectified Current... $I_{F(av)}$<br>Single Phase Resistive Load, 60 HZ, $T_c = 150^\circ\text{C}$                     | .....                           | 50            | .....         | .....         | Amps         |
| Non-Repetitive Peak Forward Surge Current... $I_{FSM}$<br>Surge Supplied @ Rated Load Conditions,<br>½ Sine Wave, Single Phase, 60 HZ | .....                           | 600           | .....         | .....         | Amps         |
| Forward Voltage @ 80A... $V_F$ (Note 4)   | .....                           | 1.06          | .....         | .....         | Volts        |
| DC Reverse Current... $I_R$<br>@ Rated DC Blocking Voltage, 150°C   | .....                           | 2.0           | .....         | .....         | μAmps        |
|   | .....                           | 500           | .....         | .....         | μAmps        |
| Typical Junction Capacitance... $C_j$ (Note 1)  | .....                           | 300           | .....         | .....         | pF           |
| Typical Thermal Resistance... $R_{\theta JC}$ (Note 2)  | .....                           | 0.8           | .....         | .....         | °C / W       |
| Typical Reverse Recovery Time... $t_{RR}$   | .....                           | 3.0           | .....         | .....         | μS           |
| Operating & Storage Temperature Range... $T_J, T_{STRG}$  | .....                           | -50 to 175    | .....         | .....         | °C           |



Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 HZ  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

- NOTES:**
1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
  2. Thermal Resistance Junction to Case, Jedec Method.
  3. When Mounted to heat sink, from body.
  4. Pulse Test: Pulse Width  $\leq 300\text{ }\mu\text{S}$ , Duty Cycle 2%.