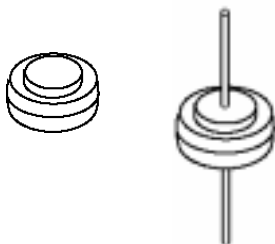
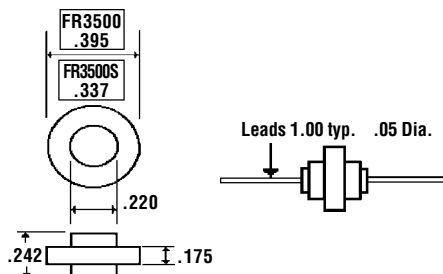


## Description



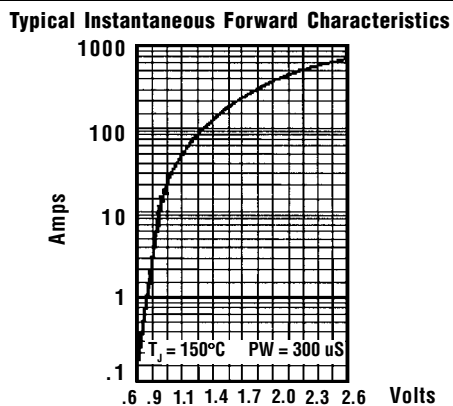
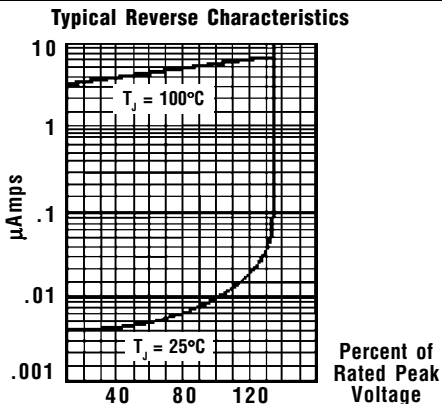
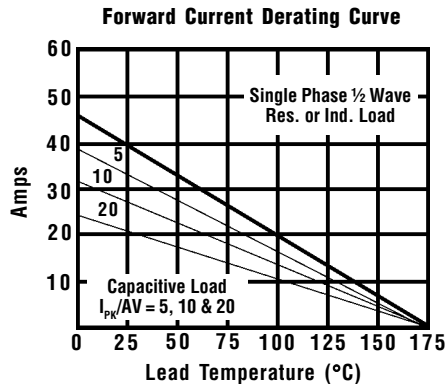
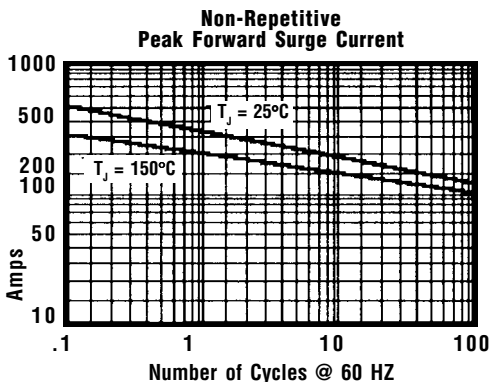
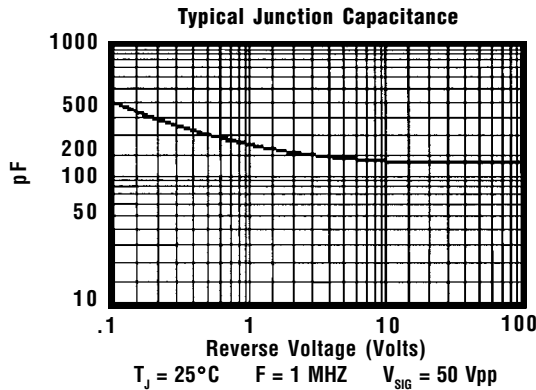
## Mechanical Dimensions



## Features

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

| Electrical Characteristics @ 25°C.  | FR3501 . . . 3510 Series                  |        |        |        |        |        |        | Units                                |
|---|---|--------|--------|--------|--------|--------|--------|--------------------------------------|
| Maximum Ratings   | FR3501                                    | FR3502 | FR3503 | FR3504 | FR3506 | FR3508 | FR3510 |                                      |
| Peak Repetitive Reverse Voltage... $V_{RRM}$  | 100                                       | 200    | 300    | 400    | 600    | 800    | 1000   | Volts                                |
| RMS Reverse Voltage... $V_{R(rms)}$   | 70  | 140    | 210    | 280    | 420    | 560    | 700    | Volts                                |
| DC Blocking Voltage... $V_{DC}$   | 100                                       | 200    | 300    | 400    | 600    | 800    | 1000   | Volts                                |
| Average Forward Rectified Current... $I_{F(av)}$<br>$T_A = 55^\circ\text{C}$ (Note 3) | ..... 35 .....                            |        |        |        |        |        |        | Amps                                 |
| Non-Repetitive Peak Forward Surge Current... $I_{FSM}$<br>@ Rated Current & Temp      | ..... 400 .....                           |        |        |        |        |        |        | Amps                                 |
| Forward Voltage @ 80A... $V_F$  | < ..... 1.08 ..... > < ..... 1.18 ..... > |        |        |        |        |        |        | Volts                                |
| DC Reverse Current... $I_R$<br>@ Rated DC Blocking Voltage, 150°C                     | ..... 2.0 .....<br>..... 350 .....        |        |        |        |        |        |        | $\mu\text{Amps}$<br>$\mu\text{Amps}$ |
| Typical Junction Capacitance... $C_J$ (Note 1)  | ..... 400 .....                           |        |        |        |        |        |        | pF                                   |
| Typical Thermal Resistance... $R_{\theta JC}$ (Note 2)                                | ..... 1.0 .....                           |        |        |        |        |        |        | °C / W                               |
| Typical Reverse Recovery Time... $t_{RR}$   | ..... 3.0 .....                           |        |        |        |        |        |        | $\mu\text{S}$                        |
| 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 Ambient, Jedec Method.
  3. When Mounted to heat sink, from body.