

## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Glass Passivated Junction
- Fast Switching Speed For High Efficiency
- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range: -55 °C to +150 °C
- Storage Temperature Range: -55 °C to +150 °C
- Typical Thermal Resistance: 50 °C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| FR151GP         | FR151GP        | 50V                                    | 35V                 | 50V                         |
| FR152GP         | FR152GP        | 100V                                   | 70V                 | 100V                        |
| FR153GP         | FR153GP        | 200V                                   | 140V                | 200V                        |
| FR154GP         | FR154GP        | 400V                                   | 280V                | 400V                        |
| FR155GP         | FR155GP        | 600V                                   | 420V                | 600V                        |
| FR156GP         | FR156GP        | 800V                                   | 560V                | 800V                        |
| FR157GP         | FR157GP        | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

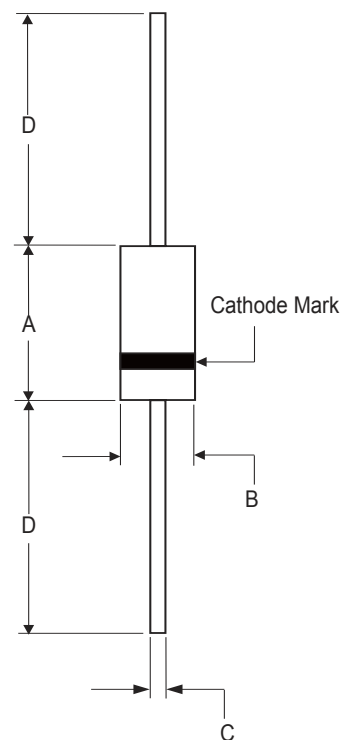
|  |             |  |   |
|--|-------------|--|---|
| Average Forward Current  | $I_{F(AV)}$ | 1.5A                                   | $T_A=55\text{ }^\circ\text{C}$                      |
| Peak Forward Surge Current   | $I_{FSM}$   | 50A                                    | 8.3ms, Half Sine                                    |
| Maximum Instantaneous Forward Voltage                                      | $V_F$       | 1.30V                                  | $I_{FM}=1.5A$ ;<br>$T_J=25^\circ\text{C}^*$         |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                    | $I_R$       | 5.0 $\mu\text{A}$<br>100 $\mu\text{A}$ | $T_J=25^\circ\text{C}$ ;<br>$T_J=100^\circ\text{C}$ |
| Maximum Reverse Recovery Time<br>FR151GP~154GP<br>FR155GP<br>FR156GP~157GP | $t_{rr}$    | 150ns<br>250ns<br>500ns                | $I_F=0.5A$ ; $I_R=1.0A$ ;<br>$I_{rr}=0.25A$         |
| Typical Junction Capacitance   | $C_J$       | 20pF                                   | Measured at 1.0MHz<br>$V_R=4.0V$                    |

\*Pulse Test: Pulse Width 300msec, Duty Cycle 1%

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

# 1.5 Amp Fast Recovery Rectifier 50 to 1000 Volts

## DO-15



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.230      | 0.300 | 5.80  | 7.60  |      |
| B   | 0.104      | 0.140 | 2.60  | 3.60  |      |
| C   | 0.026      | 0.035 | 0.70  | 0.90  |      |
| D   | 1.000      | ----- | 25.40 | ----- |      |

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

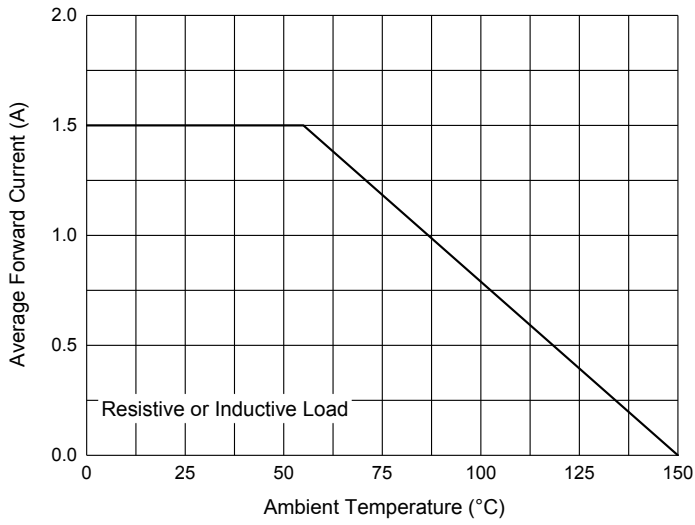


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

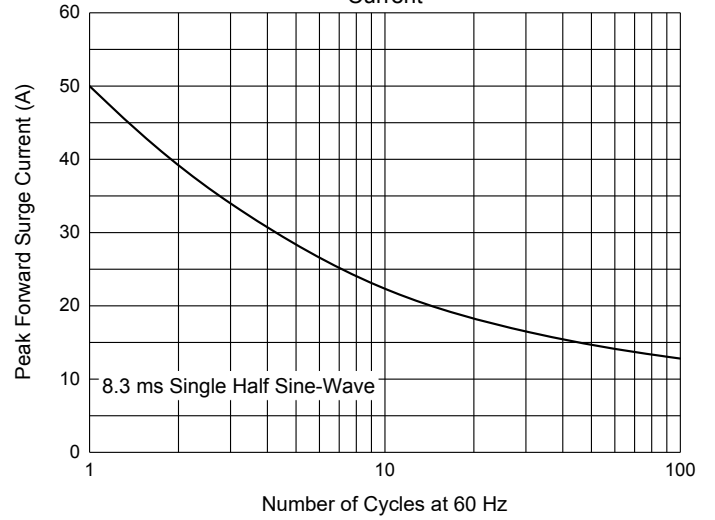


Fig. 3 - Typical Instantaneous Forward Characteristics

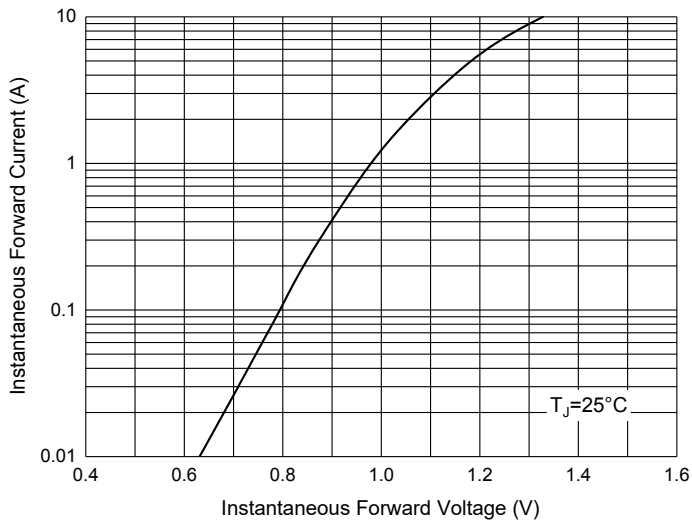
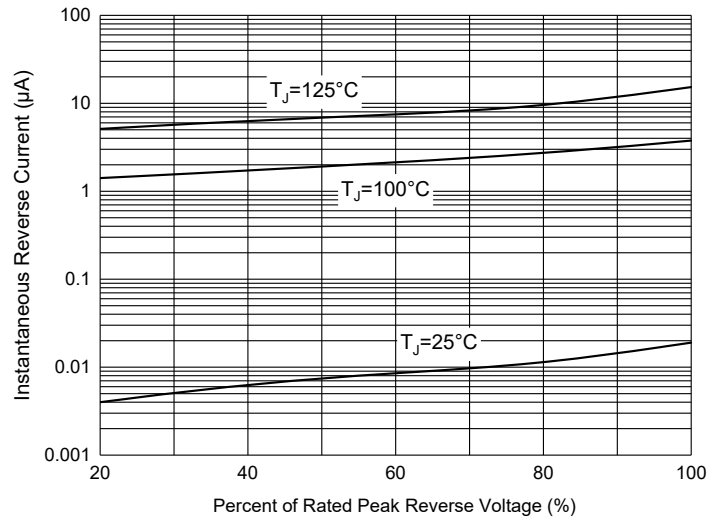


Fig. 4 - Typical Reverse Characteristics



## Ordering Information

| Device           | Packing                       |
|------------------|-------------------------------|
| (Part Number)-TP | Tape&Reel: 4Kpcs/Reel         |
| (Part Number)-AP | Ammo Packing: 3Kpcs/Ammo Box  |
| (Part Number)-BP | Bulk:500pcs/Box,25Kpcs/Carton |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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