

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Glass Passivated Junction
- Low Leakage Current And Fast Switching
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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: 60 °C/W Junction to Ambient
- Typical Thermal Resistance: 25 °C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| FR101GP | FR101GP | 50V | 35V | 50V |
| FR102GP | FR102GP | 100V | 70V | 100V |
| FR103GP | FR103GP | 200V | 140V | 200V |
| FR104GP | FR104GP | 400V | 280V | 400V |
| FR105GP | FR105GP | 600V | 420V | 600V |
| FR106GP | FR106GP | 800V | 560V | 800V |
| FR107GP | FR107GP | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

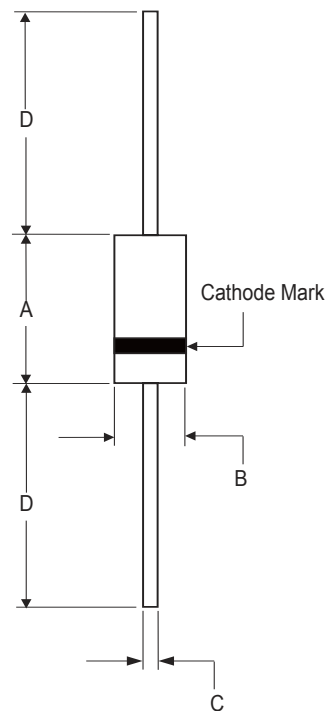
| | | | |
|---|-------------|----------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | See Fig. 1 |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.30V | $I_{FM}=1.0A$; $T_J=25^\circ C^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0 μA 100 μA | $T_J=25^\circ C$; $T_J=100^\circ C$ |
| Maximum Reverse Recovery Time | t_{rr} | 150ns 250ns 500ns | $I_F=0.5A$; $I_R=1.0A$; $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz $V_R=4.0V$ |

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

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

1.0 Amp Fast Recovery Rectifier 50 to 1000 Volts

DO-41



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|--------|
| | MIN | MAX | MIN | MAX | |
| A | 0.160 | 0.205 | 4.10 | 5.20 | |
| B | 0.080 | 0.107 | 2.00 | 2.70 | ϕ |
| C | 0.028 | 0.035 | 0.71 | 0.90 | ϕ |
| D | 1.000 | ----- | 25.40 | ----- | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

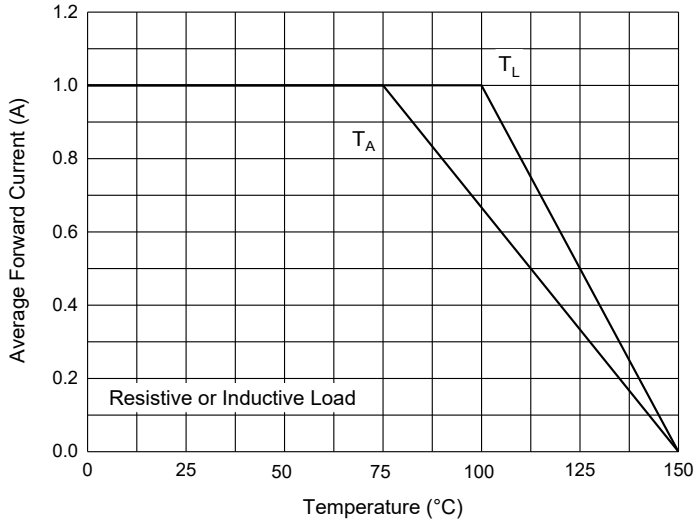


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

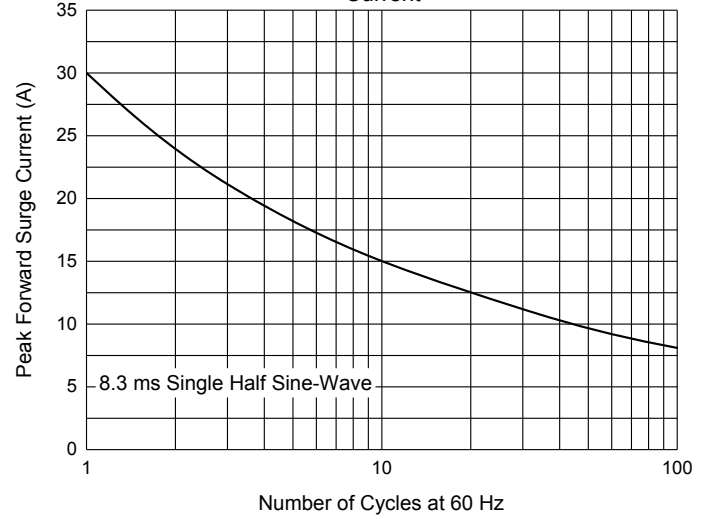


Fig. 3 - Typical Instantaneous Forward Characteristics

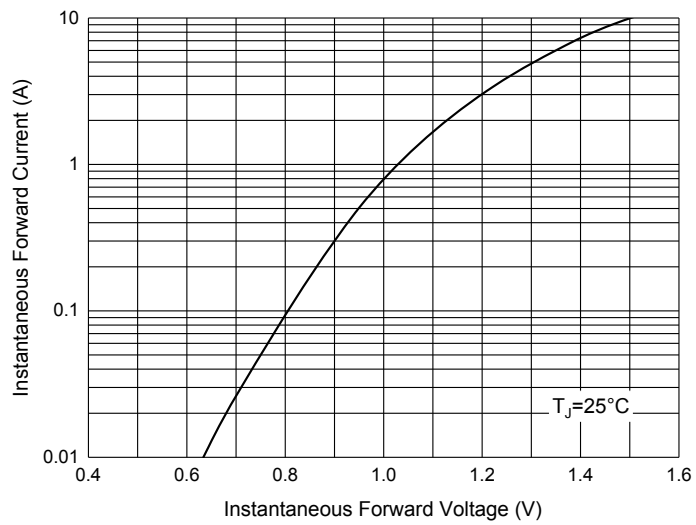
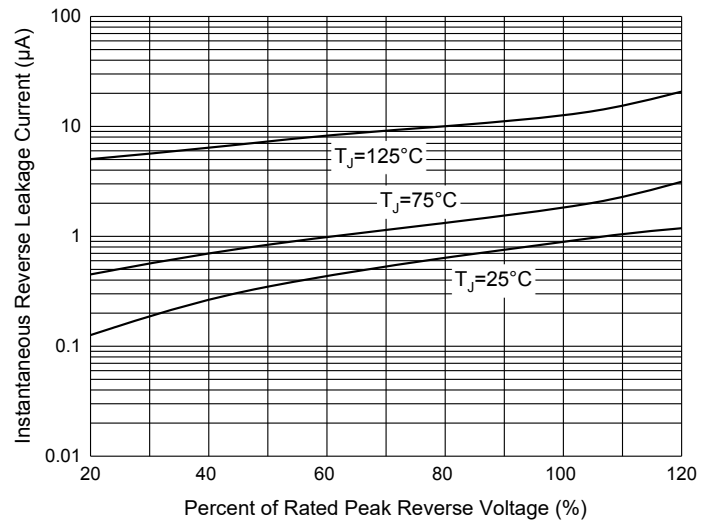


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|------------------|--------------------------------|
| (Part Number)-TP | Tape&Reel: 5Kpcs/Reel |
| (Part Number)-AP | Ammo Packing: 5Kpcs/Ammo Box |
| (Part Number)-BP | Bulk: 1Kpcs/Box, 50Kpcs/Carton |

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

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