

Features

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

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 80°C/W Junction to Ambient
- Typical Thermal Resistance: 20°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SF11G | SF11G | 50V | 35V | 50V |
| SF12G | SF12G | 100V | 70V | 100V |
| SF13G | SF13G | 150V | 105V | 150V |
| SF14G | SF14G | 200V | 140V | 200V |
| SF15G | SF15G | 300V | 210V | 300V |
| SF16G | SF16G | 400V | 280V | 400V |
| SF18G | SF18G | 600V | 420V | 600V |

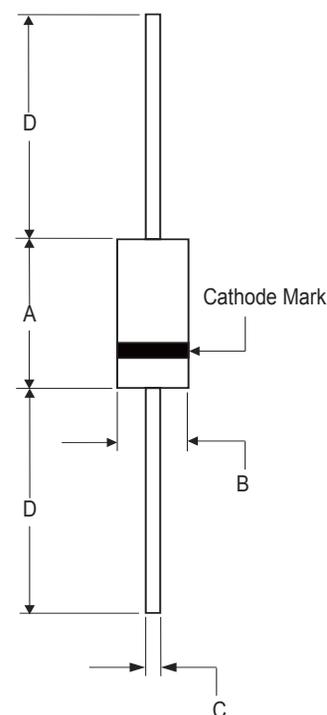
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|-----------------------|---|
| 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 SF11G-SF14G SF15G-SF16G SF18G | V_F | 0.95V 1.3V 1.7V | $I_{FM}=1.0A;$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0μA 100μA | $T_J=25°C;$ $T_J=125°C$ |
| Maximum Reverse Recovery Time | t_{rr} | 35ns | $I_F=0.5A; I_R=1.0A;$ $I_{RR}=0.25A$ |
| Typical Junction Capacitance SF11G-SF14G SF15G-SF18G | C_J | 20pF 10pF | Measured at 1.0MHz $V_R=4.0V$ |

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

1.0 Amp Glass Passivated Super Fast Recovery Rectifier 50 to 600 Volts

DO-41



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | 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

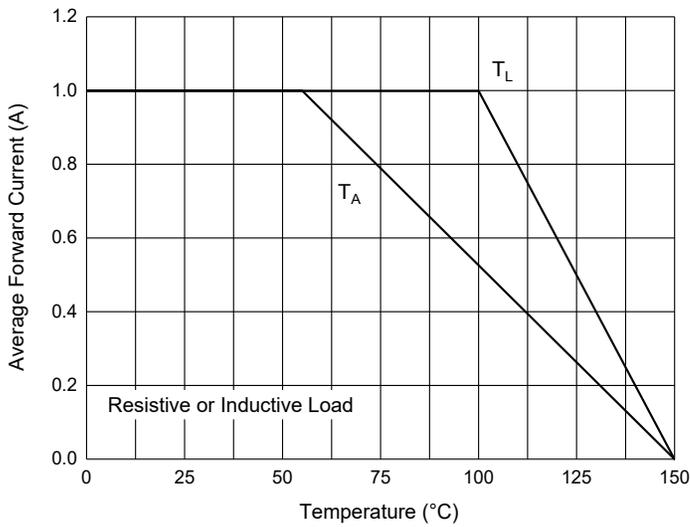


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

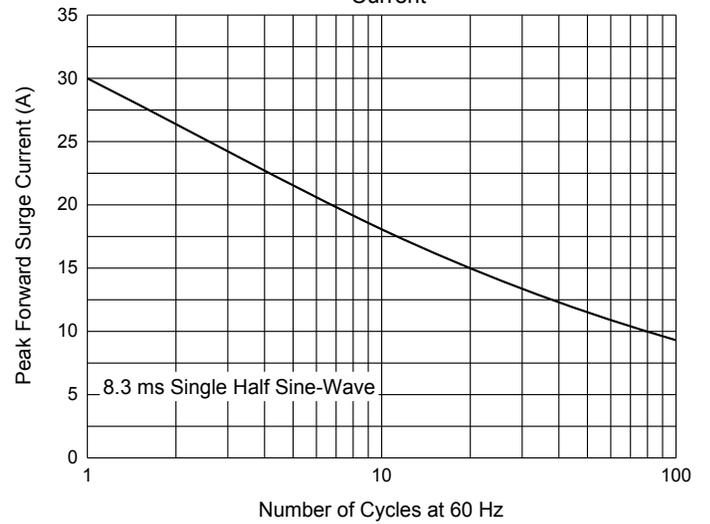


Fig. 3 - Typical Instantaneous Forward Characteristics

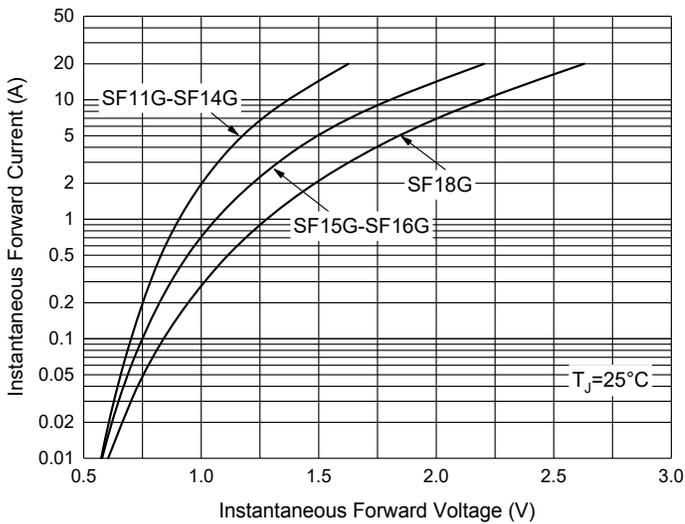
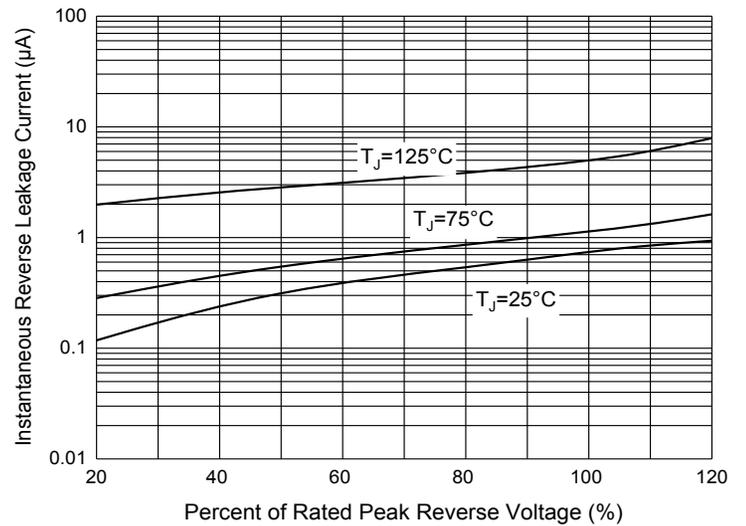


Fig. 4 - Typical Reverse Leakage Characteristics



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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