

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Low Leakage And Low Power Loss
- Super Fast Switching Speed And High Current Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Typical Thermal Resistance: 20°C/W Junction to Ambient

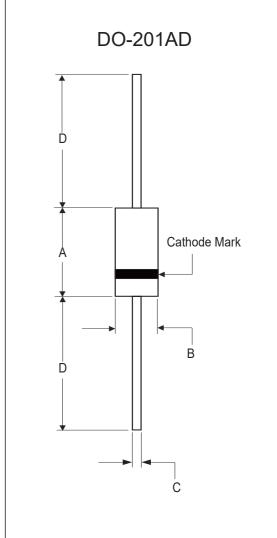
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|-------------------|---|------------------------|-----------------------------------|
| SF51G | SF51GP | 50V | 35V | 50V |
| SF52G | SF52GP | 100V | 70V | 100V |
| SF54G | SF54GP | 200V | 140V | 200V |
| SF55G | SF55GP | 300V | 210V | 300V |
| SF56G | SF56GP | 400V | 280V | 400V |
| SF58G | SF58GP | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward Current | I _{F(AV)} | 5.0A | T _A =55°C |
|---|--------------------|-------------------------|--|
| Peak Forward Surge Current | I _{FSM} | 150A | 8.3ms,Half Sine |
| Maximum Instantaneous Forward Voltage SF51G-SF54G SF55G-SF56G SF58G | V _F | 0.95V 1.27V 1.75V | I _{FM} =5.0A; T _J =25°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I _R | 5.0μA 150μA | T _J =25°C; T _J =125°C |
| Maximum Reverse Recovery Time | t _{rr} | 35ns | I _F =0.5A; I _R =1.0A; Irr=0.25A |
| Typical Junction Capacitance SF51G-SF54G SF55G-SF58G | Сл | 50pF 30pF | Measured at 1.0MHz, V _R =4.0V |

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

5 Amp High Efficiency Glass Passivated Rectifier 50 to 600 Volts



| DIMENSIONS | | | | | |
|------------|--------|-------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | NOTE |
| Α | 0.287 | 0.374 | 7.30 | 9.50 | |
| В | 0.189 | 0.208 | 4.80 | 5.30 | |
| С | 0.048 | 0.052 | 1.20 | 1.30 | |
| D | 1.000 | | 25.40 | | |
| | | | | | |



Curve Characteristics

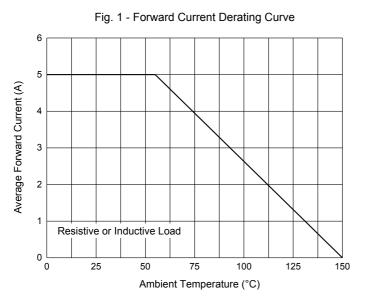


Fig. 3 - Typical Instantaneous Forward Characteristics

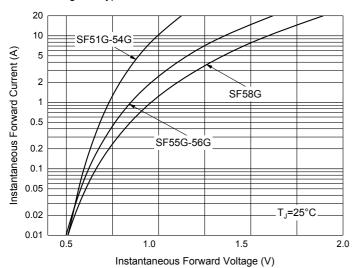


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge

Current

175

150

150

100

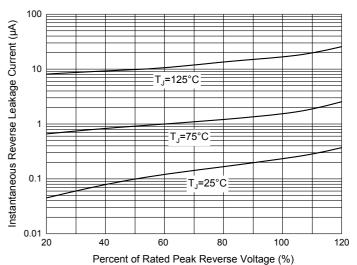
75

8.3 ms Single Half Sine-Wave

0
1 10 100

Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics





Ordering Information

| Device | Packing | | |
|----------------|--------------------------------|--|--|
| Part Number-TP | Tape&Reel: 1.2Kpcs/Reel | | |
| Part Number-AP | Ammo Packing: 1.2Kpcs/Ammo Box | | |
| Part Number-BP | Bulk:500pcs/Box,12Kpcs/Carton | | |

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

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