

#### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Low Power Loss, High Efficiency
- · Low Leakage
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- 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: 30°C/W Junction to Ambient

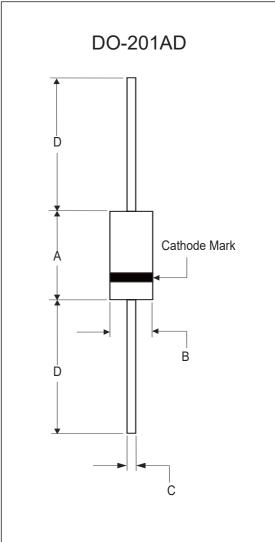
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS Voltage | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|------------------------|-----------------------------------|
| SF31G              | SF31G             | 50V   | 35V                    | 50V                               |
| SF32G              | SF32G             | 100V  | 70V                    | 100V                              |
| SF34G              | SF34G             | 200V  | 140V                   | 200V                              |
| SF35G              | SF35G             | 300V  | 210V                   | 300V                              |
| SF36G              | SF36G             | 400V  | 280V                   | 400V                              |
| SF38G              | SF38G             | 600V  | 420V                   | 600V                              |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward Current   | I <sub>F(AV)</sub> | 3.0A                    | T <sub>A</sub> =55°C                                     |
|---|--------------------|-------------------------|--|
| Peak Forward Surge<br>Current                                       | I <sub>FSM</sub>   | 125A                    | 8.3ms,Half Sine  |
| Maximum Instantaneous Forward Voltage SF31G-SF34G SF35G-SF36G SF38G | V <sub>F</sub>     | 0.95V<br>1.27V<br>1.75V | I <sub>FM</sub> =3.0A;<br>T <sub>A</sub> =25°C           |
| Maximum DC Reverse<br>Current At Rated DC<br>Blocking Voltage       | I <sub>R</sub>     | 5.0μA<br>150μA          | T <sub>J</sub> =25°C;<br>T <sub>J</sub> =125°C           |
| Maximum Reverse<br>Recovery Time                                    | t <sub>rr</sub>    | 35ns                    | I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A;<br>Irr=0.25A |
| Typical Junction<br>Capacitance<br>SF31G-SF34G<br>SF35G-SF38G       | Сл                 | 50pF<br>30pF            | Measured at<br>1.0MHz, V <sub>R</sub> =4.0V              |

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

# 3 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**

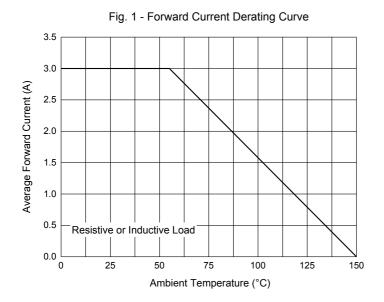


Fig. 3 - Typical Instantaneous Forward Characteristics

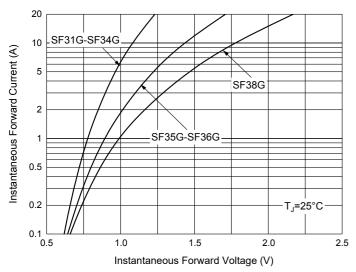
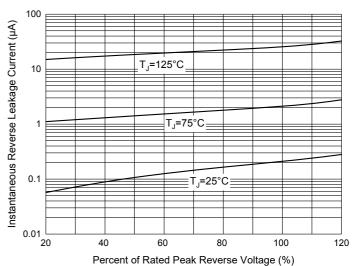


Fig. 4 - Typical Reverse Leakage Characteristics





### **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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