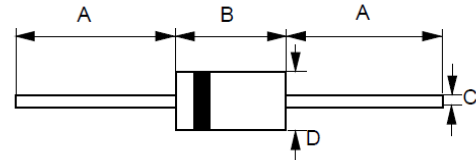


**SUPER FAST  
 GLASS PASSIVATED RECTIFIER**
**REVERSE VOLTAGE – 400 Volts  
 FORWARD CURRENT – 2.0 Amperes**
**FEATURES**

- Glass passivated chip
- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Qualified according to AEC-Q101 Rev\_C
- Plastic material has UL flammability classification 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

**MECHANICAL DATA**

- Package : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

**DO-15**


| DO-15                        |       |       |
|------------------------------|-------|-------|
| Dim                          | Min.  | Max.  |
| A                            | 25.4  | -     |
| B                            | 5.80  | 7.60  |
| C                            | 0.71ø | 0.86ø |
| D                            | 2.60ø | 3.60ø |
| All Dimensions in millimeter |       |       |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER   | SYMBOL                   | SF20GG      | UNIT                 |
|---|--------------------------|-------------|----------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$                | 400         | V                    |
| Maximum RMS Voltage   | $V_{RMS}$                | 280         | V                    |
| Maximum DC Blocking Voltage   | $V_{DC}$                 | 400         | V                    |
| Maximum Average Forward Rectified Current @ $T_A=75^{\circ}\text{C}$  | $I_{(AV)}$               | 2.0         | A                    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)                 | $I_{FSM}$                | 60          | A                    |
| Maximum forward Voltage at 2.0A DC  | $V_F$                    | 1.25        | V                    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^{\circ}\text{C}$<br>@ $T_J=100^{\circ}\text{C}$ | $I_R$                    | 5<br>100    | uA                   |
| Typical Junction Capacitance (Note 4)   | $C_T$                    | 40          | pF                   |
| Typical Thermal Resistance (Note 5)   | $R_{thJA}$<br>$R_{thJC}$ | 35<br>16    | $^{\circ}\text{C/W}$ |
| Maximum Reverse Recovery Time (Note 6)  | $t_{rr}$                 | 40          | ns                   |
| Operating Temperature Range   | $T_J$                    | -55 to +150 | $^{\circ}\text{C}$   |
| Storage Temperature Range   | $T_{STG}$                | -55 to +150 | $^{\circ}\text{C}$   |

**Note :**

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal Resistance Junction to Ambient.
6. Measured with  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $t_{rr}=0.25A$ .

**RATING AND CHARACTERISTIC CURVES**

**SF20GG**

FIG.1 - FORWARD CURRENT DERATING CURVE

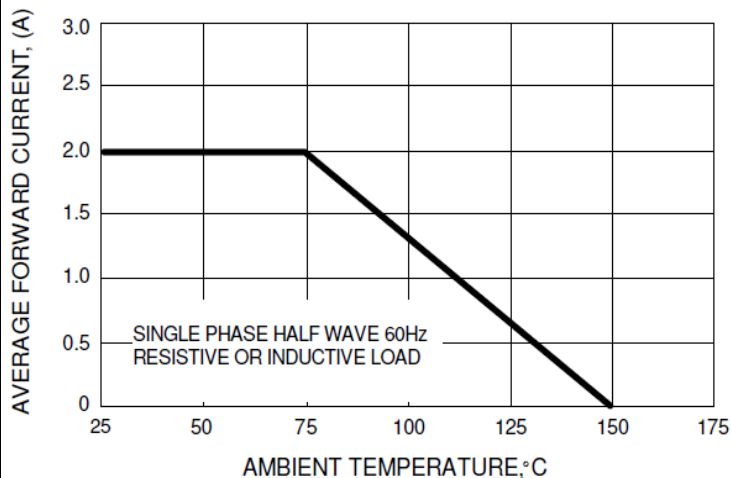


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

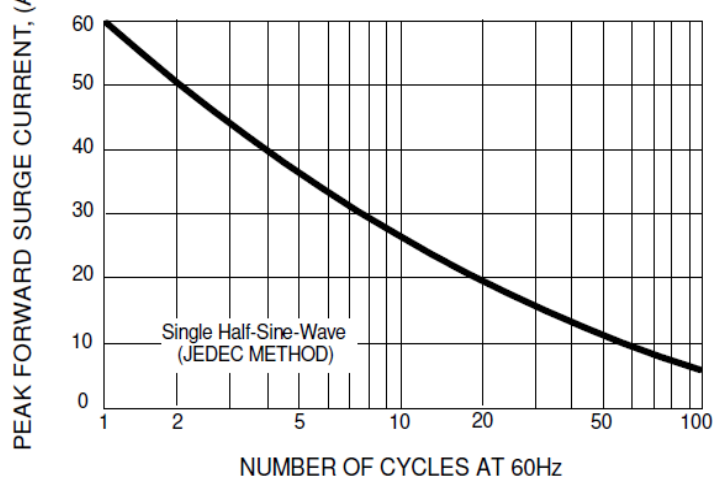


FIG.3 - TYPICAL JUNCTION CAPACITANCE

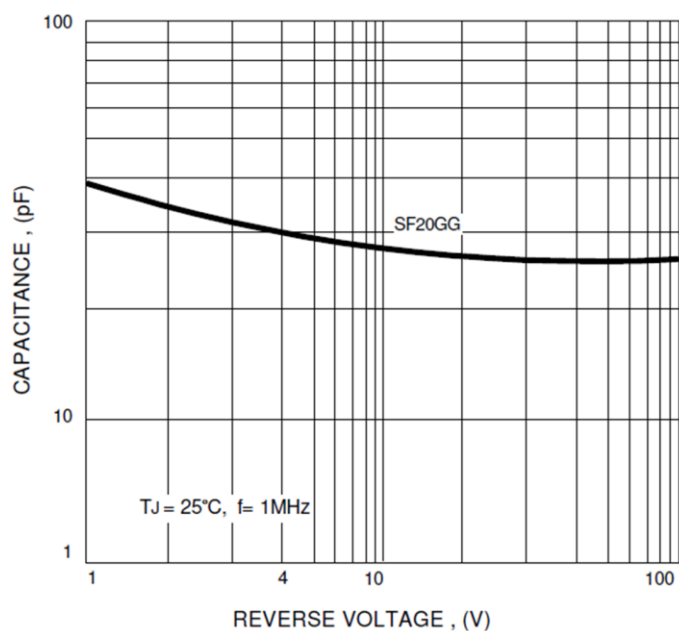
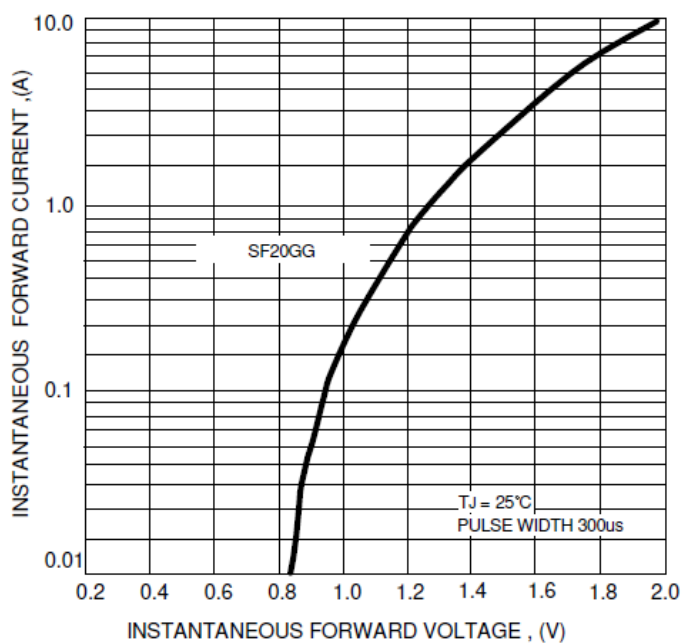


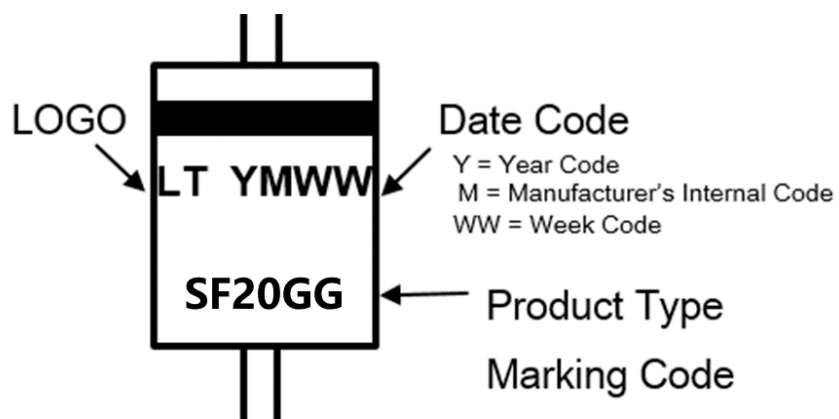
FIG.4 - TYPICAL FORWARD CHARACTERISTICS



## Ordering Information :

| Part Number   | Package | Packing |             |
|---------------|---------|---------|-------------|
|               |         | Qty.    | Carrier     |
| SF20GG_HF     | DO-15   | 4000pcs | Tape & Reel |
| SF20GG_HF-A52 | DO-15   | 2000pcs | Ammo 52     |

## Marking Information :



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