

# SF20DG-SF20JG(LS)

**SUPER FAST  
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 200 to 600 Volts  
FORWARD CURRENT – 2.0 Amperes**

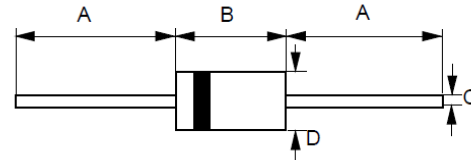
**FEATURES**

- Glass passivated chip
- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- 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
- Lead Free Finish, RoHS Compliant
- 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	0.71 $\phi$	0.86 $\phi$
D	2.60 $\phi$	3.60 $\phi$
All Dimensions in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SF20DG	SF20JG	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	600	V
Maximum RMS Voltage	$V_{RMS}$	140	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	600	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	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	$V_F$	0.95	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5 100		$\mu$ A
Typical Junction Capacitance (Note 4)	$C_T$	40	30	pF
Typical Thermal Resistance (Note 5)	$R_{thJA}$ $R_{thJC}$	35 16		°C/W
Maximum Reverse Recovery Time (Note 6)	$t_{rr}$	35	50	ns
Operating Temperature Range	$T_J$	-55 to +150		°C
Storage Temperature Range	$T_{STG}$	-55 to +150		°C

**Note :**

REV-10, Oct-2021, KGD01

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  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$ .

**RATING AND CHARACTERISTIC CURVES**  
**SF20DG-SF20JG**

FIG.1 - FORWARD CURRENT DERATING CURVE

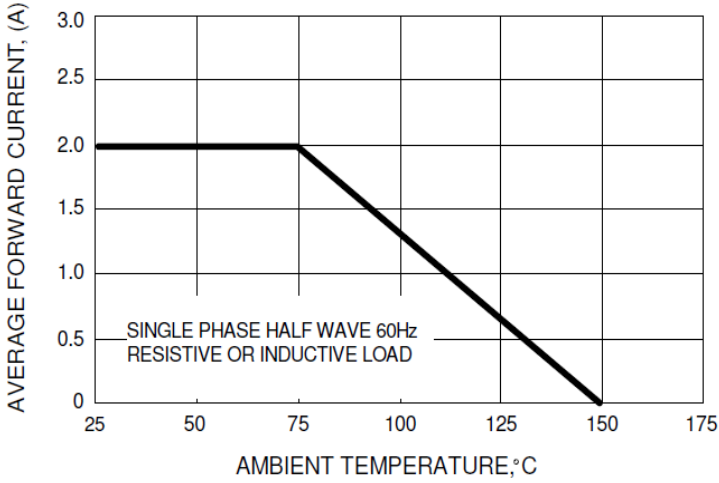


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

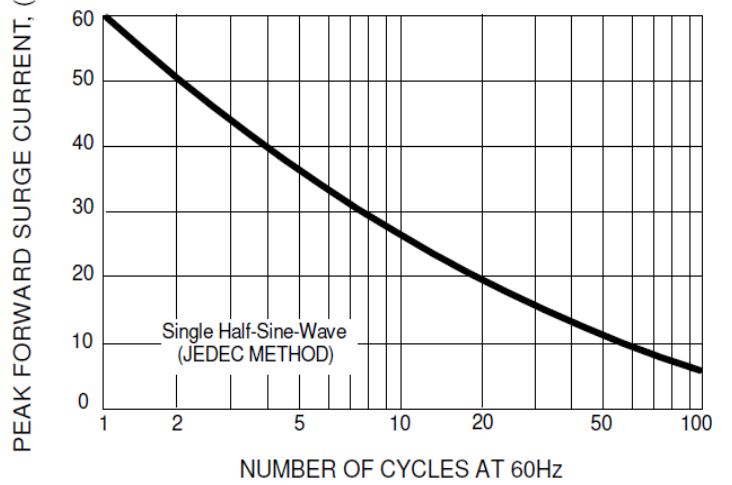


FIG.3 - TYPICAL JUNCTION CAPACITANCE

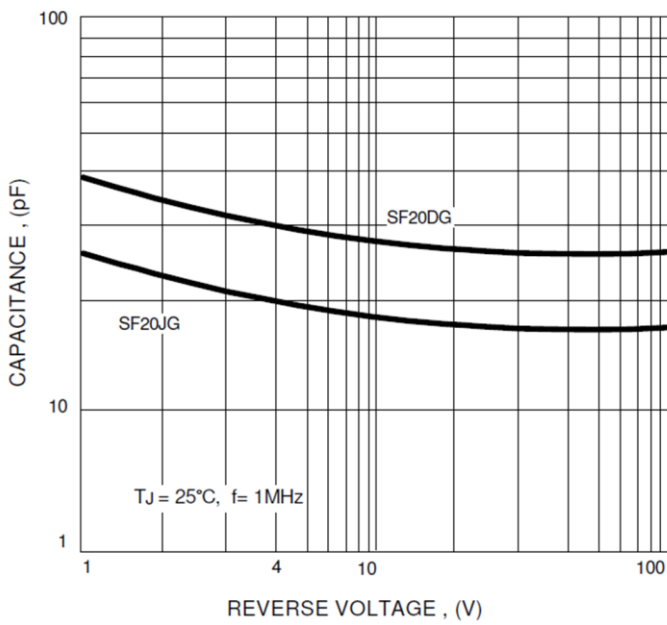
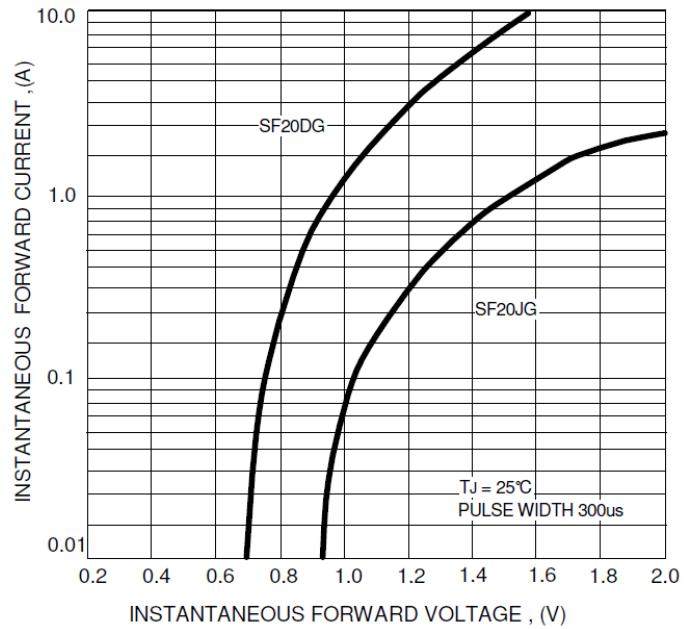


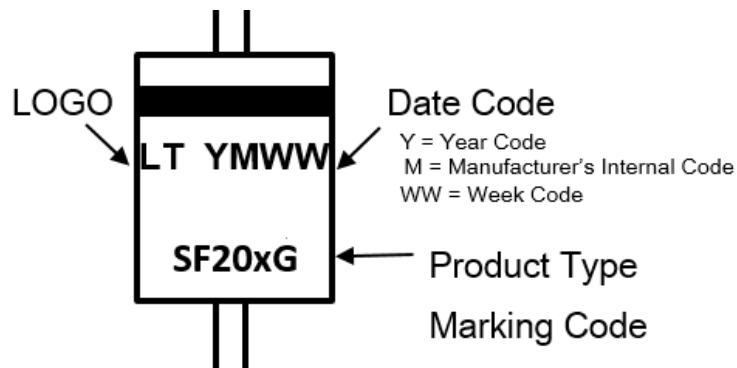
FIG.4 - TYPICAL FORWARD CHARACTERISTICS



### Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
SF20DG_HF	DO-15	4000pcs	Tape & Reel
SF20DG_HF-A52	DO-15	2000pcs	Ammo 52
SF20JG_HF	DO-15	4000pcs	Tape & Reel
SF20JG_HF-A26	DO-15	2000pcs	Ammo 26
SF20JG_HF-A52	DO-15	2000pcs	Ammo 52

### Marking Information :



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