

SF20DG-SF20JG(LS)

SUPER FAST GLASS PASSIVATED RECTIFIER

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

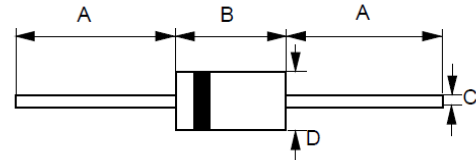
FEATURES

- 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 ϕ	0.86 ϕ
D	2.60 ϕ	3.60 ϕ
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	@ $T_A=75^\circ\text{C}$ $I_{(AV)}$	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	0.95	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$ I_R	5 100		μA
Typical Junction Capacitance (Note 4)	C_T	40	30	pF
Typical Thermal Resistance (Note 5)	R_{thJA} R_{thJC}	35 16		$^\circ\text{C/W}$
Maximum Reverse Recovery Time (Note 6)	t_{rr}	35	50	ns
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150		$^\circ\text{C}$

Note :

REV-10, Oct-2021, KDGD01

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 $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$.

**RATING AND CHARACTERISTIC CURVES
SF20DG-SF20JG**

FIG.1 - FORWARD CURRENT DERATING CURVE

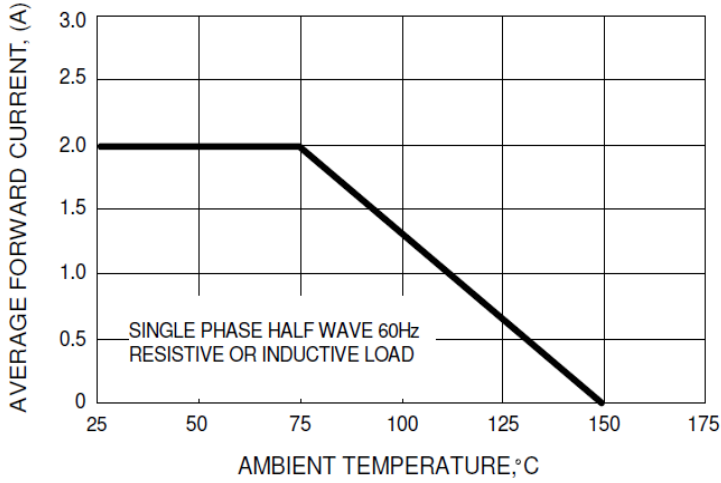


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

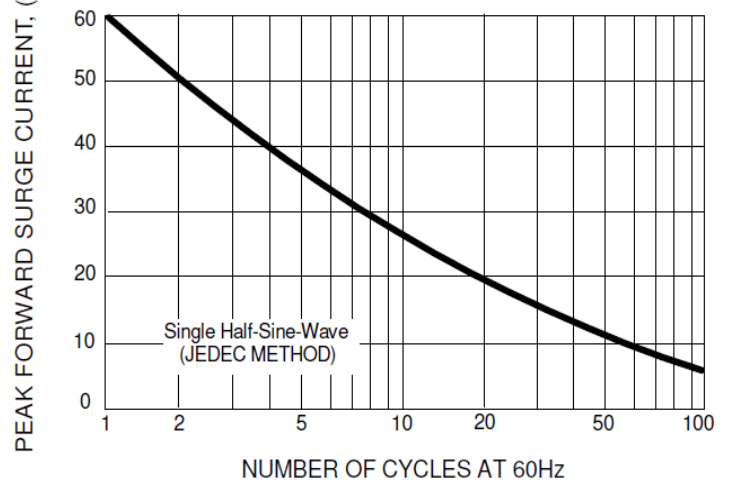


FIG.3 - TYPICAL JUNCTION CAPACITANCE

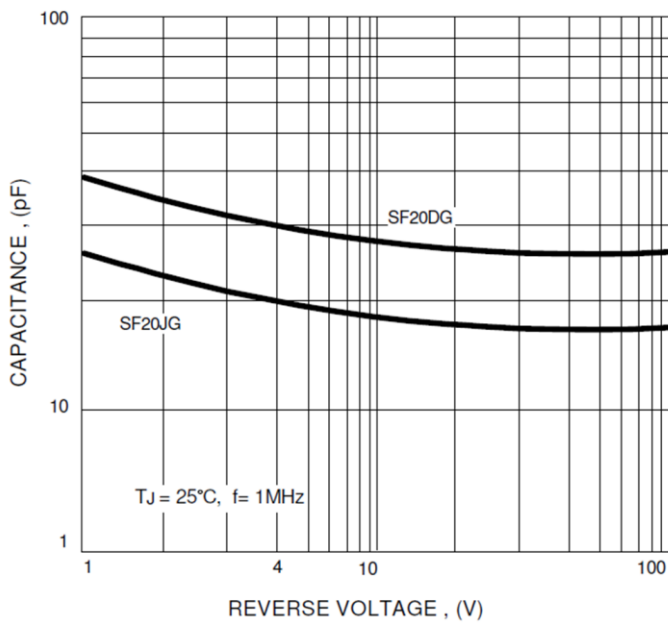
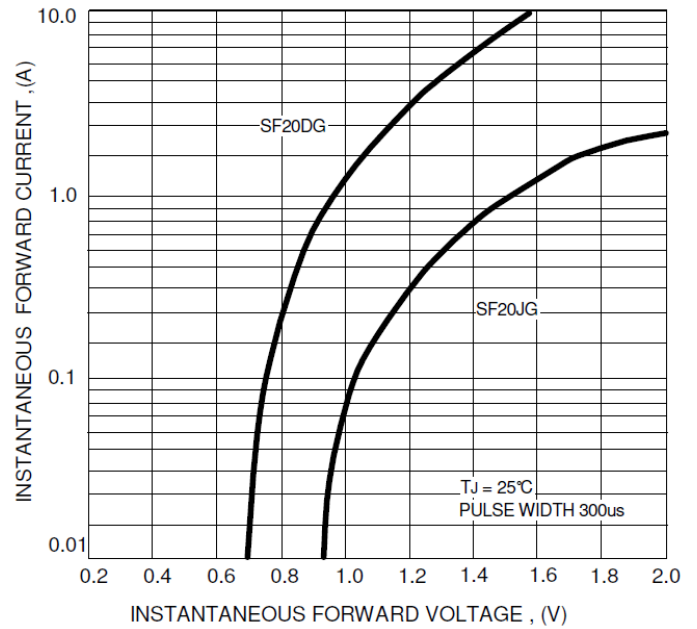


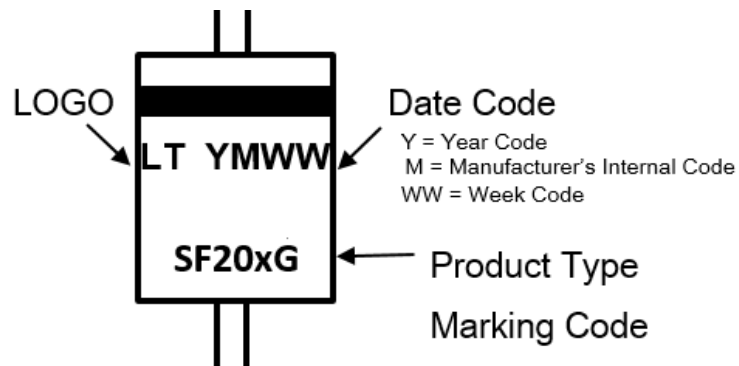
FIG.4 - TYPICAL FORWARD CHARACTERISTICS



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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