

**TRENCH SCHOTTKY RECTIFIER**

**REVERSE VOLTAGE – 100 Volts**  
**FORWARD CURRENT – 20 Amperes**

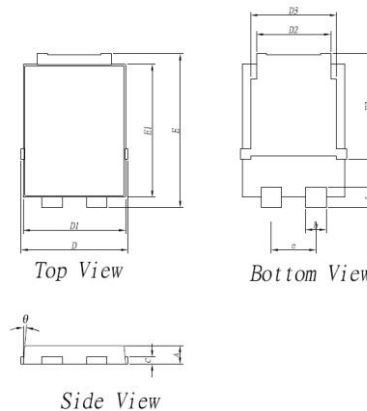
**FEATURES**

- Rating to 100V
- Ideal for printed circuit board
- Qualified according to AEC-Q101 Rev C
- Reliable construction utilizing molded plastic technique
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

**MECHANICAL DATA**

- Case: F5-PAK molded plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.), “Halogen-free”
- Polarity: As marked on body
- Marking Code: G20100CF5
- Weight: 0.92 grams (Approximate)

**F5**



F5			
DIM.	MIN.	TYP.	MAX
A	1.60	1.80	2.00
b	1.80	2.00	2.30
C	--	0.70	--
D	--	10.40	--
D1	9.80	10.00	10.30
D2	7.00	7.25	7.50
D3	8.10	8.35	8.60
E	14.50	15.00	15.50
E1	12.70	13.00	13.30
E2	10.00	10.25	10.60
e	4.35 REF.		
L	1.70	2.00	2.30
θ	--	--	5°
All dimension in millimeter			

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Maximum DC blocking voltage	V <sub>DC</sub>	100	V
Maximum average forward rectified current	@T <sub>C</sub> =115°C I <sub>(AV)</sub>	20	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load.	I <sub>FSM</sub>	150	A
Operation and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX	UNIT
Forward voltage (Note 4)	I <sub>F</sub> = 10A T <sub>J</sub> = 25°C T <sub>J</sub> =125°C	V <sub>F</sub>	0.64 0.58	0.79 0.68	V
Reverse leakage current	V <sub>R</sub> = 100V T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	50 15	150 25	uA mA
Typical junction capacitance (Note 5)		C <sub>T</sub>	550		pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 6)	R <sub>thJC</sub>	2.6	°C/W

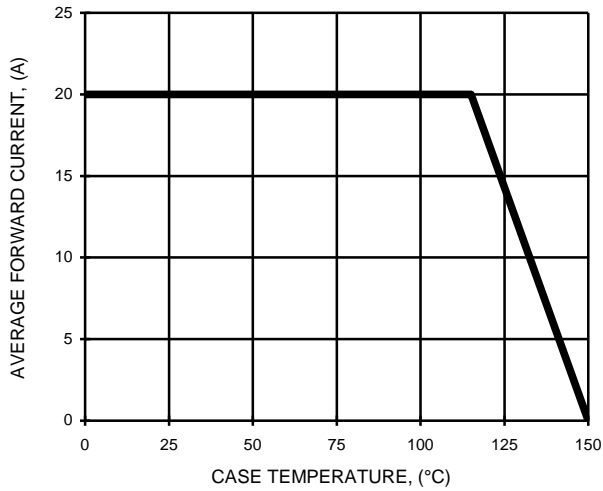
Note :

REV. 2, Oct.-2021,KSHB25

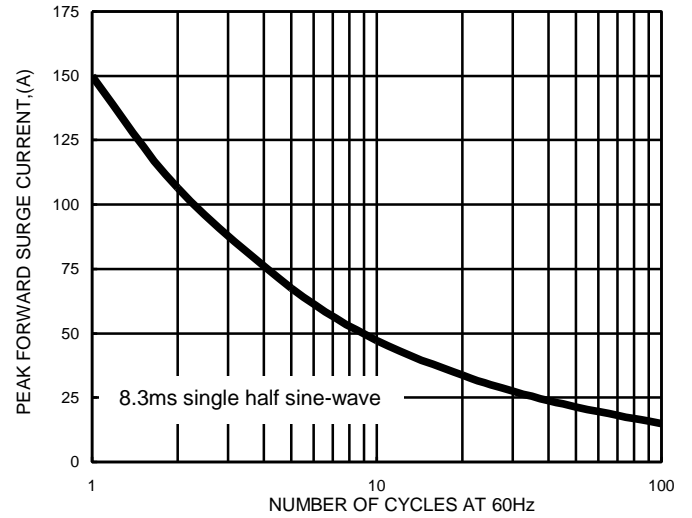
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us pulse width, 2% duty cycle.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance test performed in accordance with JESD-51.

**RATING AND CHARACTERISTIC CURVES**  
**G20100CF5**

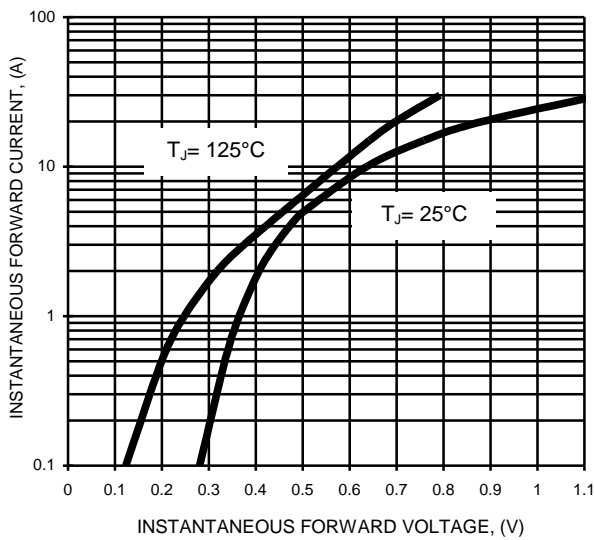
**FIG.1- FORWARD CURRENT DERATING CURVE**



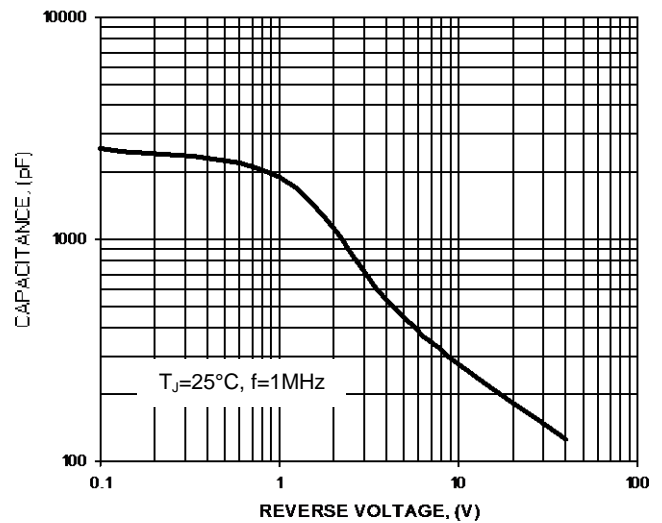
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



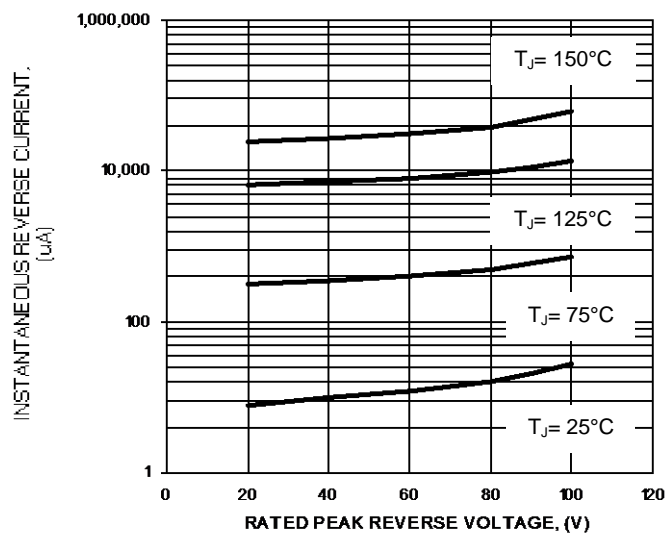
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



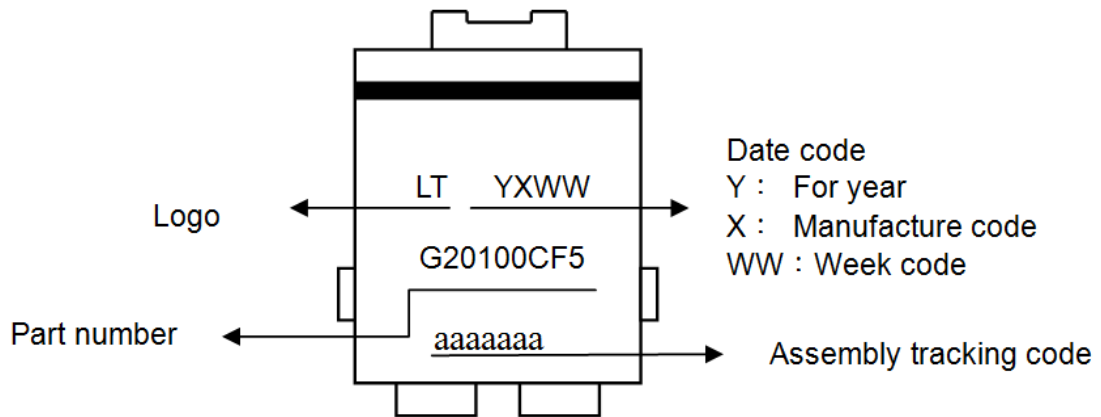
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**Ordering Information:**

Part Number	Package	Packing	
		Qty.	Carrier
G20100CF5	F5	1500	Tape & Reel

**Marking Information :**



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