

TRENCH SCHOTTKY RECTIFIER

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

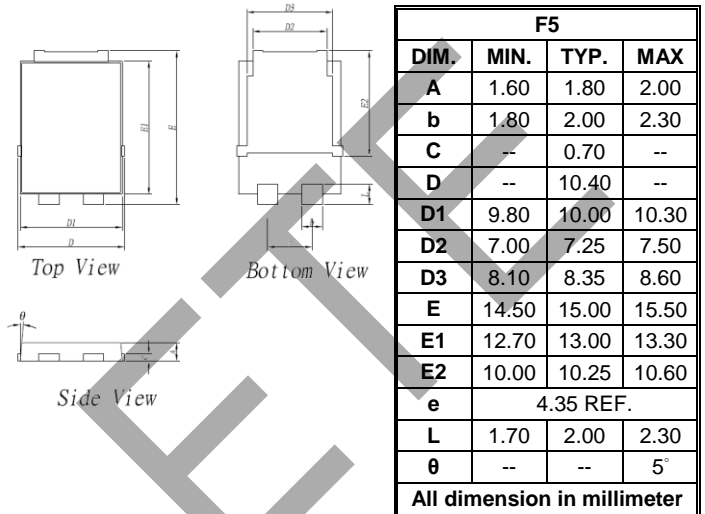
FEATURES

- 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

- Package: F5-PAK molded plastic
- Package 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



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_{RRM}	100	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current	@ $T_C=115^\circ C$ $I_{(AV)}$	20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	I_{FSM}	150	A
Operation and storage temperature range	T_J, T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP.	MAX	UNIT
Forward voltage (Note 4)	$I_F=10A$	$T_J=25^\circ C$ $T_J=125^\circ C$	V_F	0.64 0.58	0.79 0.68	V
Reverse leakage current	$V_R=100V$	$T_J=25^\circ C$ $T_J=125^\circ C$	I_R	50 15	150 25	uA mA
Typical junction capacitance (Note 5)			C_T	550		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 6)	R_{thJC}	2.6	°C/W

Notes:

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

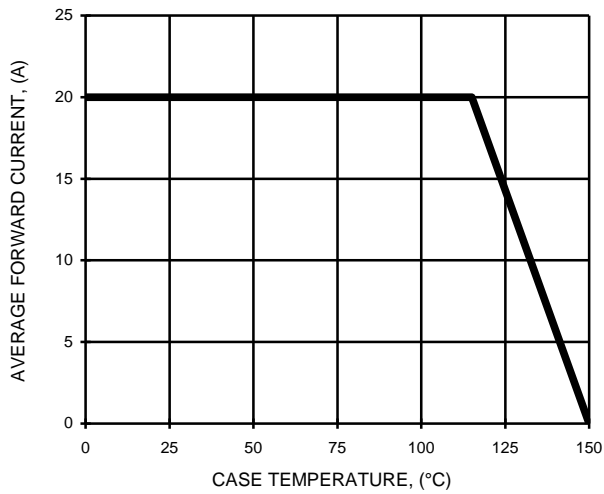


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

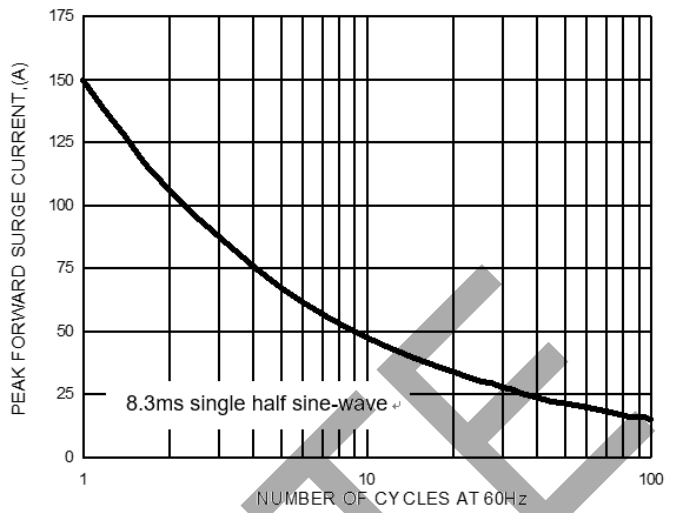


FIG.3- TYPICAL FORWARD CHARACTERISTICS

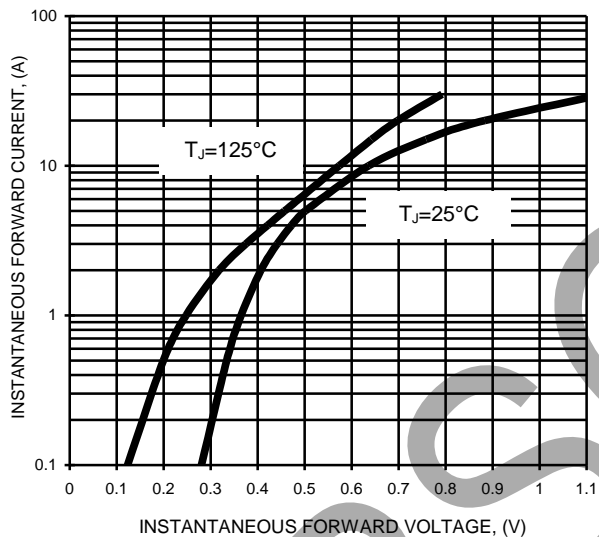


FIG.4- TYPICAL JUNCTION CAPACITANCE

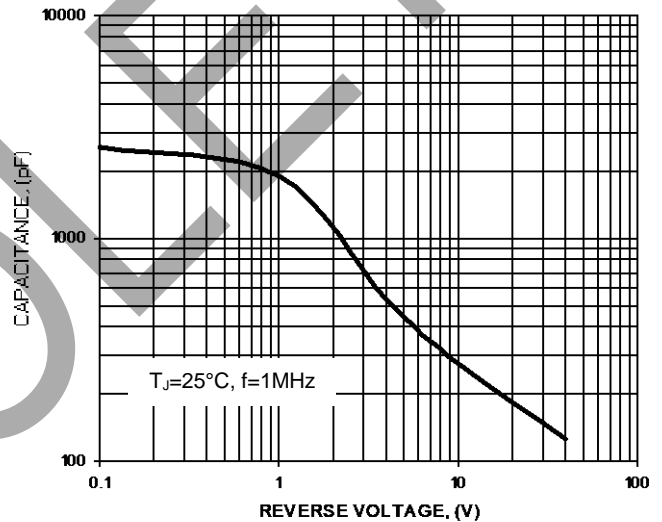
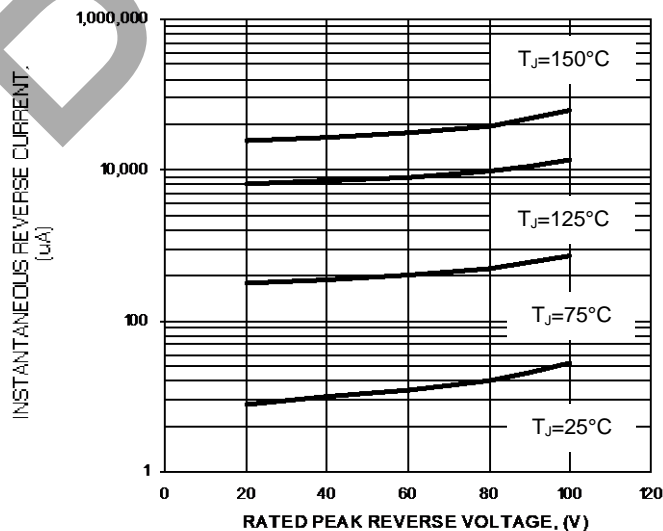


FIG.5- TYPICAL REVERSE CHARACTERISTICS

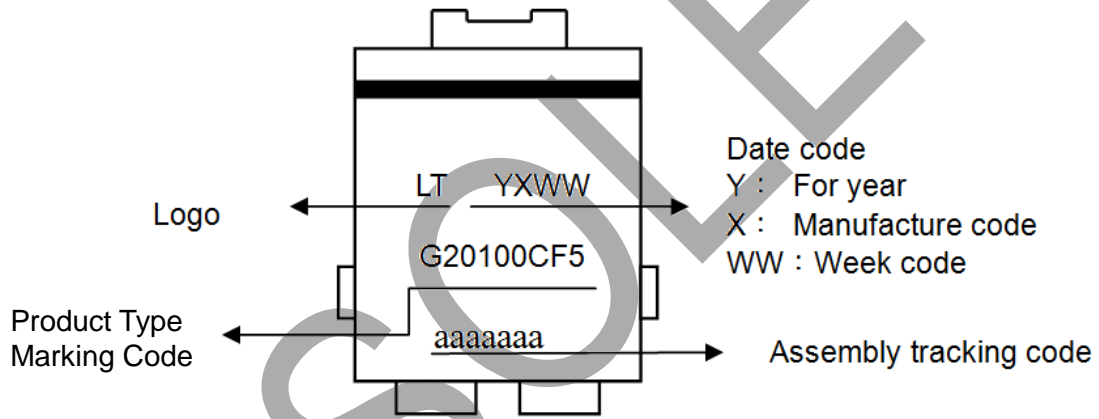


OBSOLETE - PART DISCONTINUED

Ordering Information:

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

Marking Information:



OBSOLETE - PART DISCONTINUED

OBSOLETE

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