

**TRENCH SCHOTTKY RECTIFIER**

**REVERSE VOLTAGE – 150 Volts**  
**FORWARD CURRENT – 20 Amperes**

**FEATURES**

- Super Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- Qualified according to AEC-Q101 Rev\_D

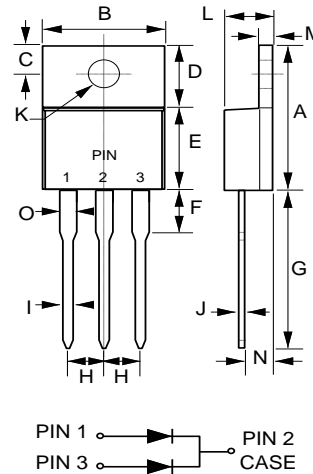
**APPLICATIONS**

- Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply application

**MECHANICAL DATA**

- Case: TO-220AB molded plastic
- Case Material: "Green" Molding compound, UL flammability classification 94V-0, "Halogen-free".
- Lead free finish, RoHS compliant
- Polarity indicator: As marked on the body
- Marking code: G20H150CTW
- Weight: 1.927 grams (Approximate)

**TO-220AB**



TO-220AB		
DIM	MIN	MAX
A	14.40	15.20
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	4.20
G	12.70	14.73
H	2.29	2.79
I	0.51	1.00
J	0.30	0.64
K	3.53Φ	4.09Φ
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92
O	1.14	1.37

All Dimensions 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>	150	V
Maximum DC blocking voltage	V <sub>DC</sub>	150	V
Maximum Average rectified forward current	I <sub>AV</sub>	20	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	180	A
Operating and Storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 ~ +175	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	I <sub>F</sub> = 10A T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	V <sub>F</sub>	--	0.82 0.68	V
Reverse leakage current	V <sub>R</sub> = 150V T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>R</sub>	-- 0.4	8 10	μA mA

**DYNAMIC ELECTRICAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical junction capacitance (Note 2)	C <sub>J</sub>	710	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	R <sub>thJL</sub>	3	°C/W
	R <sub>thJc</sub>	2	

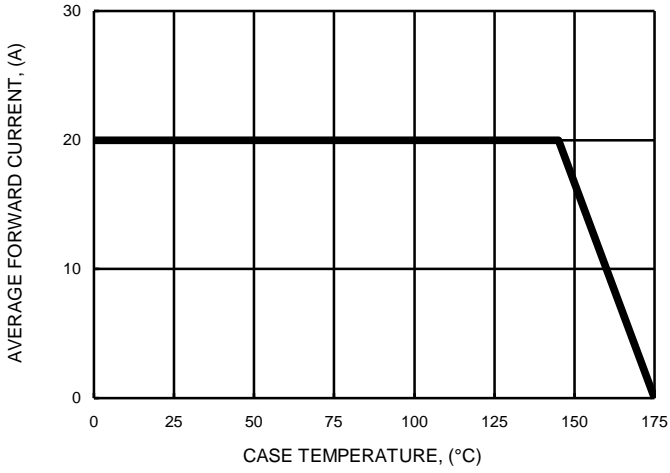
**Note :**

- (1) 300us pulse width, 2% duty cycle
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
- (3) Thermal Resistance test performed in accordance with JESD-51.
- (4) The unit mounted on Aluminum fin-type heatsink (25mm x 44mm x 13.6 mm)

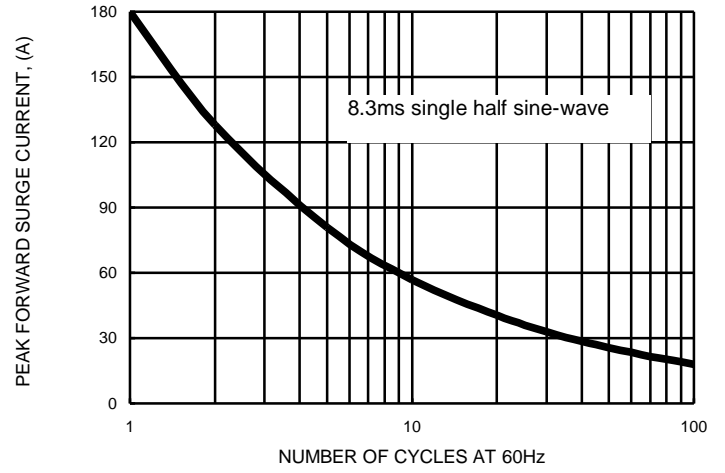
REV.-1, Oct.-2020, KTHC214

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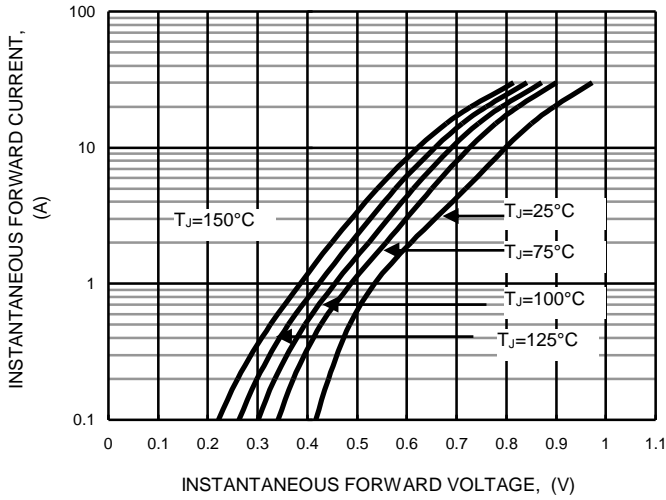
**FIG.1- FORWARD CURRENT DERATING CURVE**



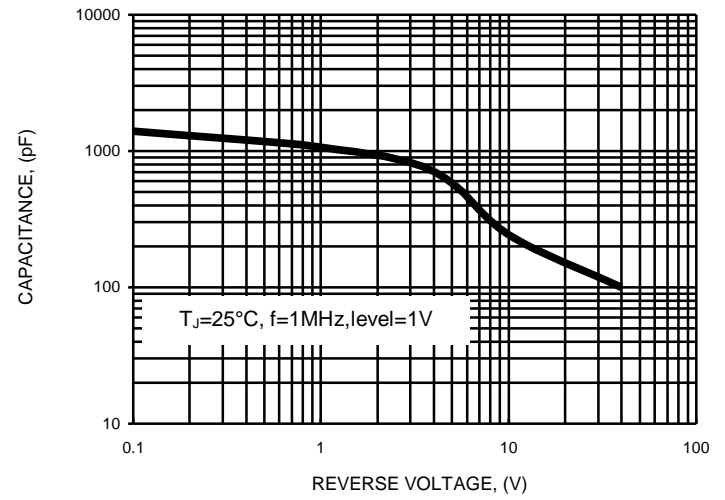
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



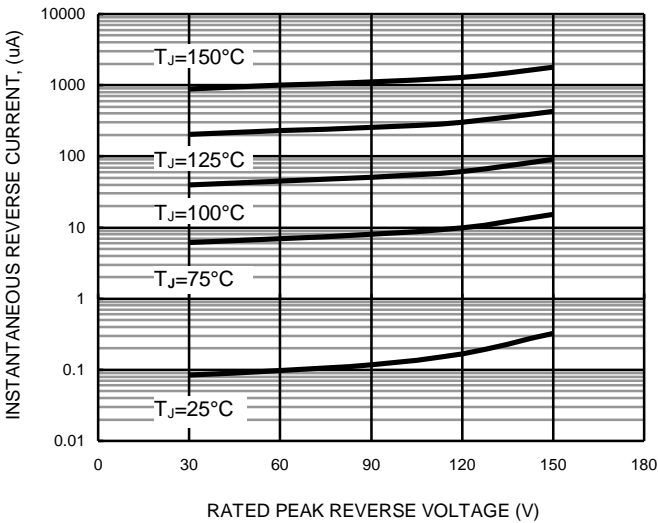
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- AVERAGE FORWARD POWER DISSIPATION VS AVERAGE FORWARD CURRENT**

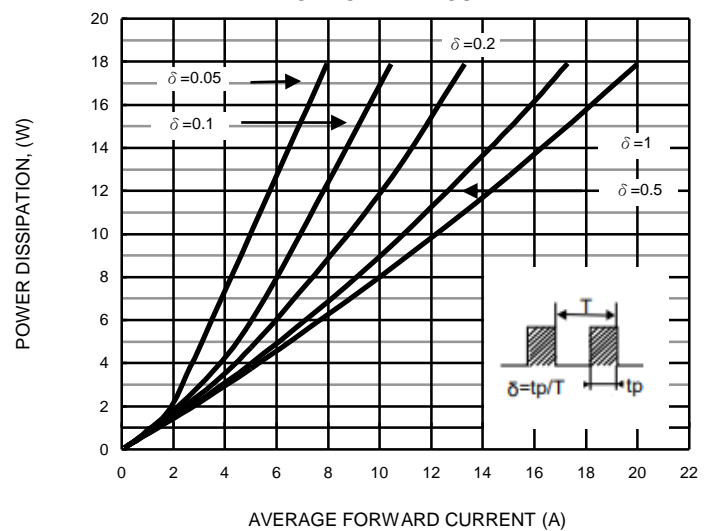
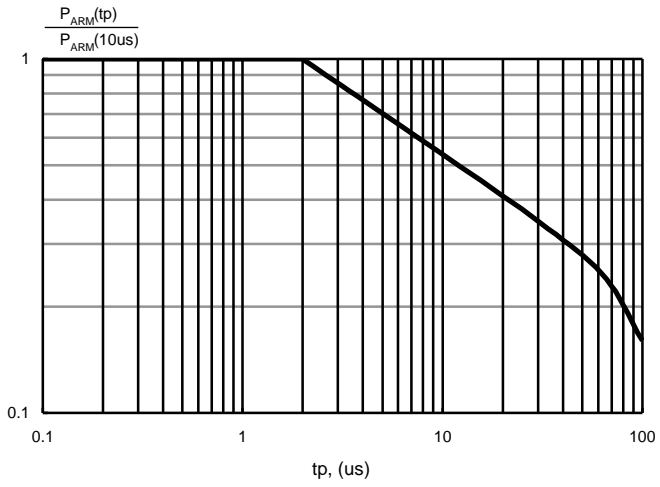
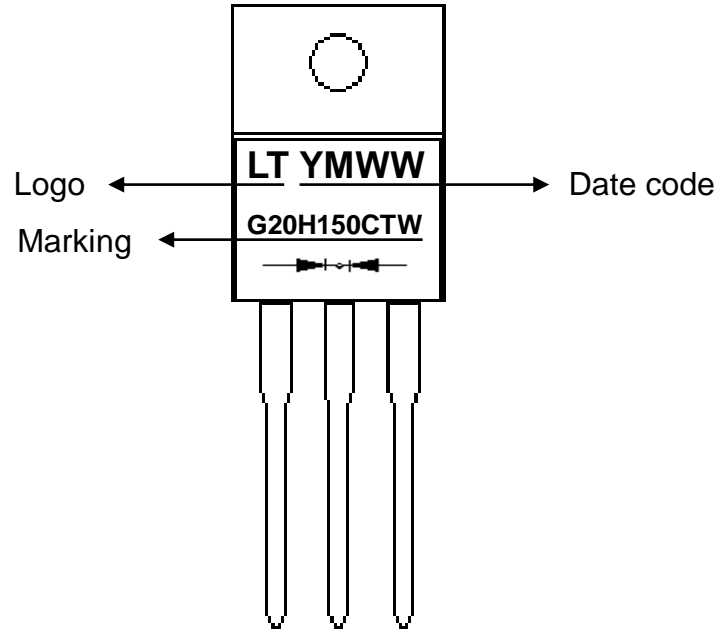


FIG.7- NORMALIZED AVALANCHE POWER  
DERATING VERSUS PULSE DURATION

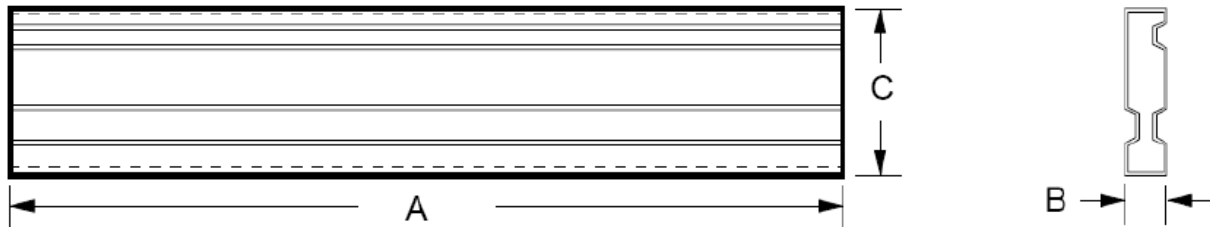


Marking information:

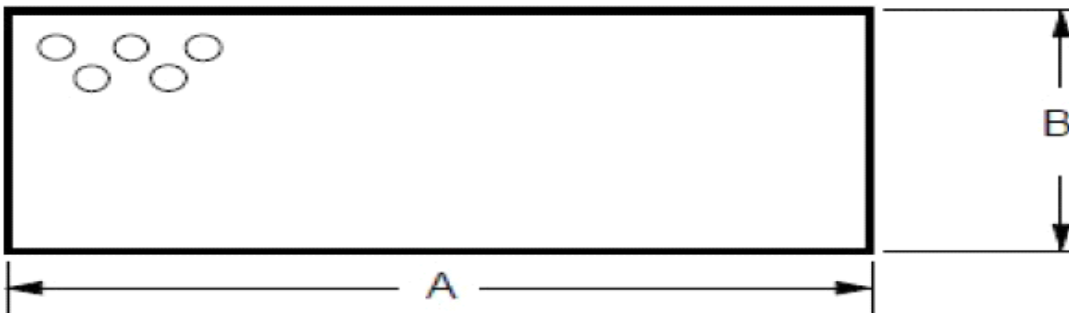


Packaging Information:

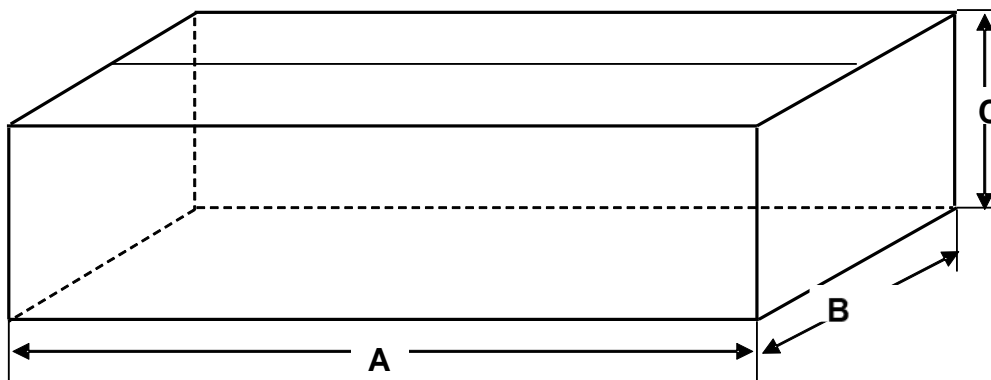
1. TUBE



2. AIR BAG

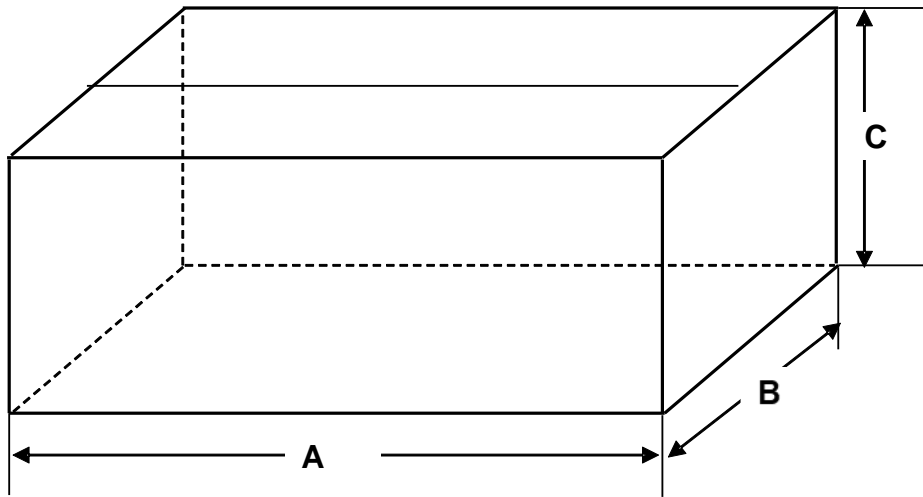


3. INNERBOX



**Packaging Information:**

**4. CARTON**



**Unit:mm**

<b>P/N</b>	<b>DIMENSION "A"</b>	<b>DIMENSION "B"</b>	<b>DIMENSION "C"</b>	<b>Q'ty/per</b>	<b>REMARK</b>
<b>TUBE</b>	<b>536</b>	<b>5.6</b>	<b>31.8</b>	<b>50</b>	<b>/</b>
<b>AIR BAG</b>	<b>800</b>	<b>550</b>	<b>/</b>	<b>/</b>	<b>/</b>
<b>INNERBOX</b>	<b>555</b>	<b>165</b>	<b>105</b>	<b>2000</b>	<b>40TUBE</b>
<b>CARTON</b>	<b>575</b>	<b>179</b>	<b>225</b>	<b>4K</b>	<b>2 INNER BOX</b>

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