

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 150 Volts
FORWARD CURRENT – 10 Amperes

FEATURES

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

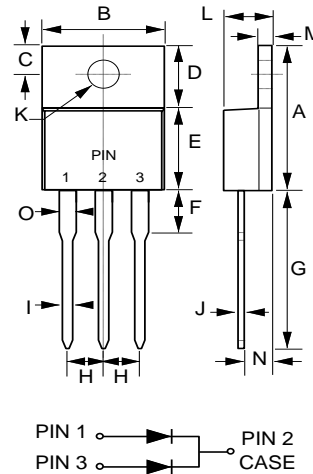
APPLICATION

- 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 : As marked on body
- Marking code: G10H150CTW
- 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_{RRM}	150	V
Maximum DC blocking voltage	V_{DC}	150	V
Maximum Average rectified forward current	I_{AV}	10	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	180	A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ +175	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F = 5A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	V_F	--	0.79 0.63	V
Reverse leakage current	$V_R = 150V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	-- 0.4	8 10	μA mA

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical junction capacitance (Note 2)	C_J	540	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	R_{thJL} R_{thJC}	7 5	°C/W

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 Al plant Heatsink (15mm x 36mm x 1.65mm)

REV- 1, Jan.-2021, KTHC237

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FIG.1 FORWARD CURRENT DERATING CURVE

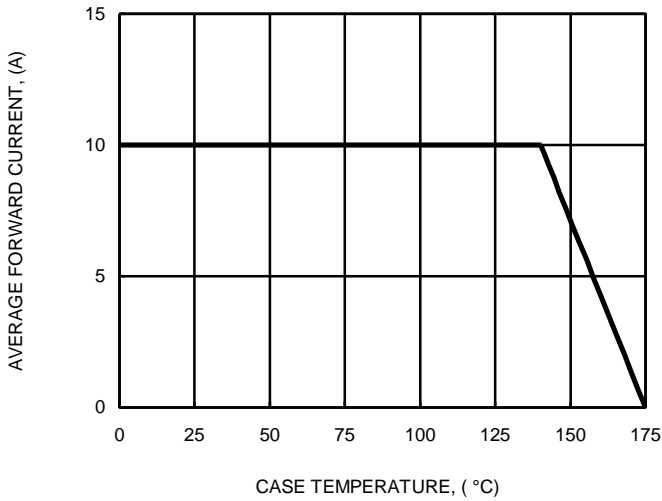


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

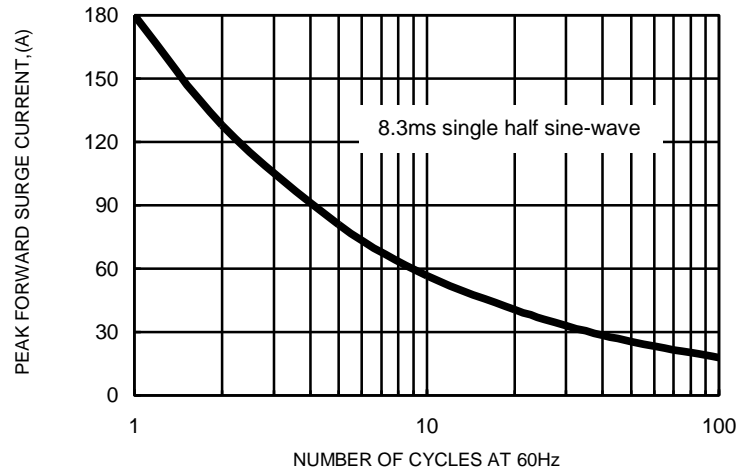


FIG.3 TYPICAL FORWARD CHARACTERISTICS

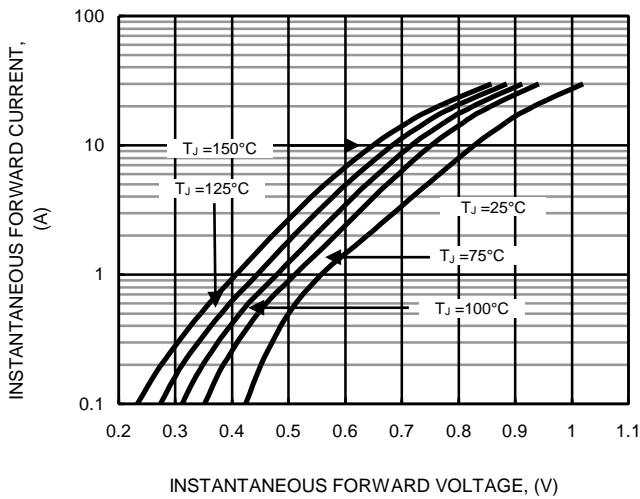


FIG.4 TYPICAL JUNCTION CAPACITANCE

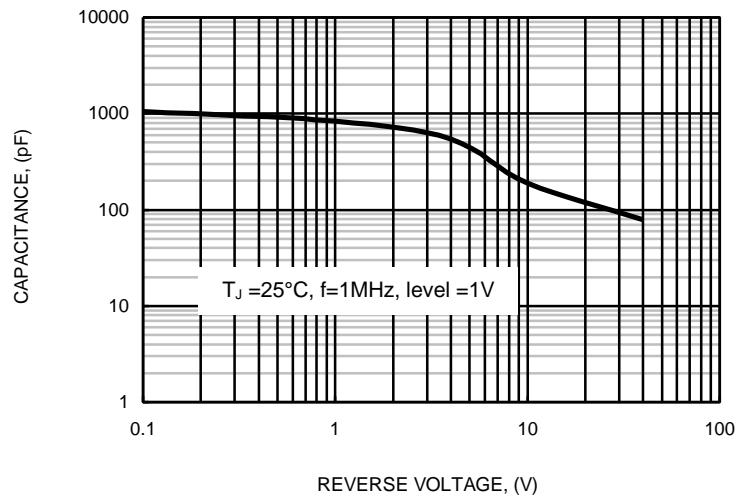


FIG.5 TYPICAL REVERSE CHARACTERISTICS

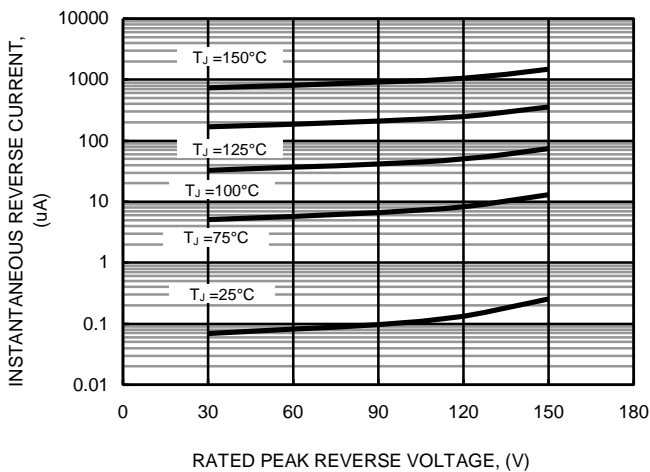


FIG.6- AVERAGE FORWARD POWER DISSIPATION VS AVERAGE FORWARD CURRENT

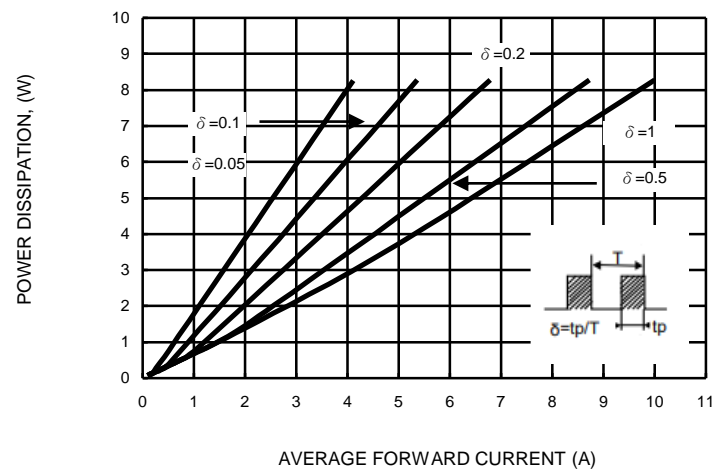
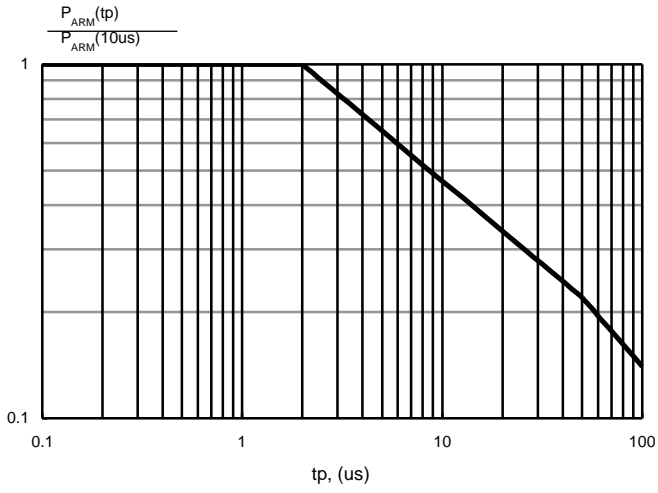
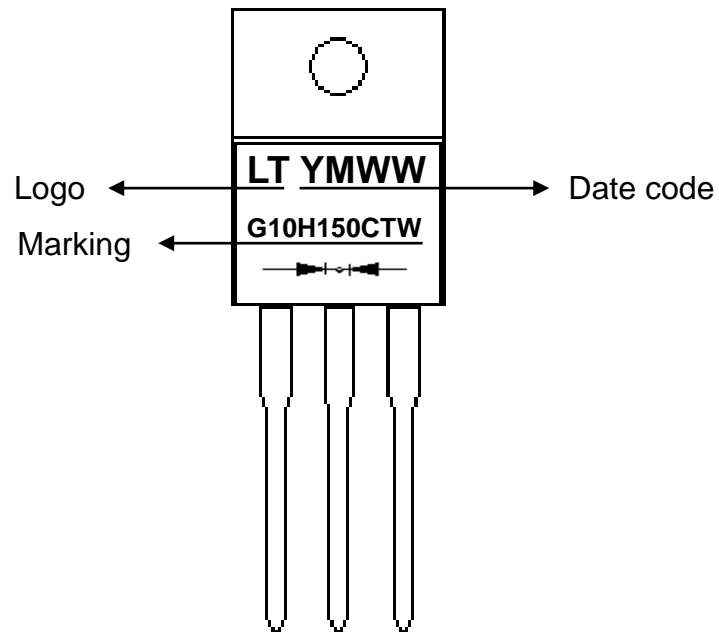


FIG.7- NORMALIZED AVALANCHE POWER
DERATING VERSUS PULSE DURATION

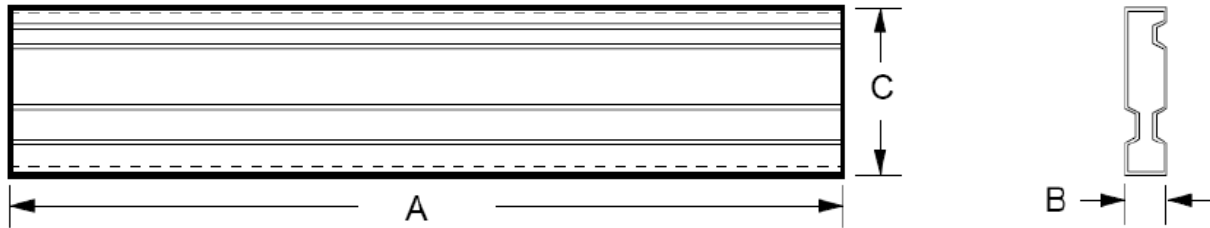


Marking information:

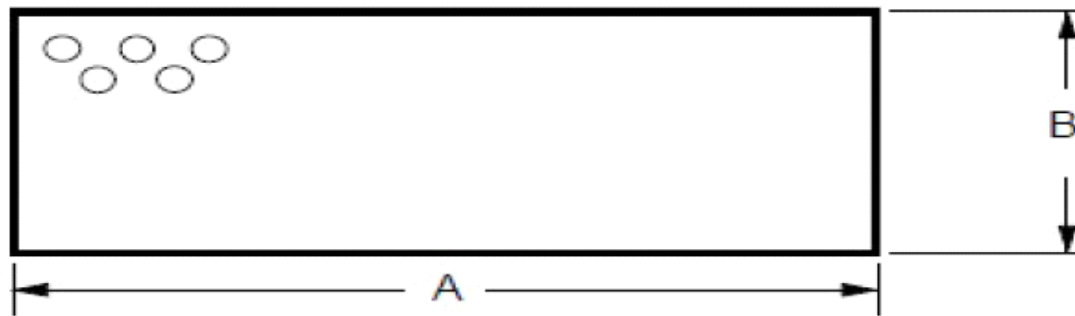


Packaging Information:

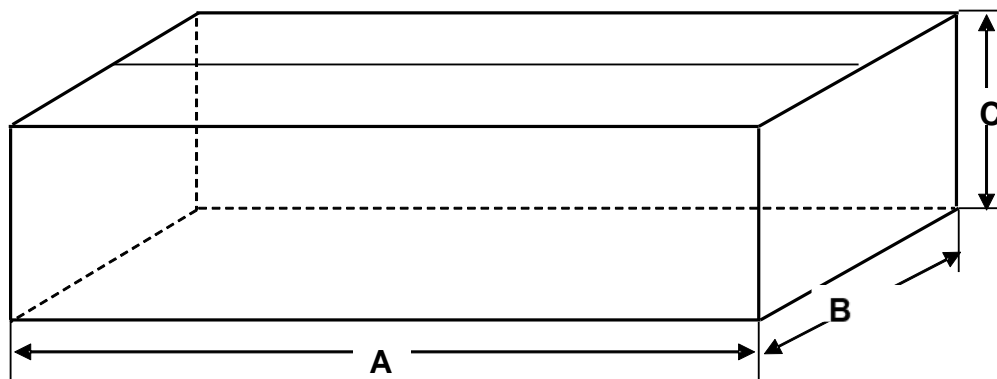
1. TUBE



2. AIR BAG

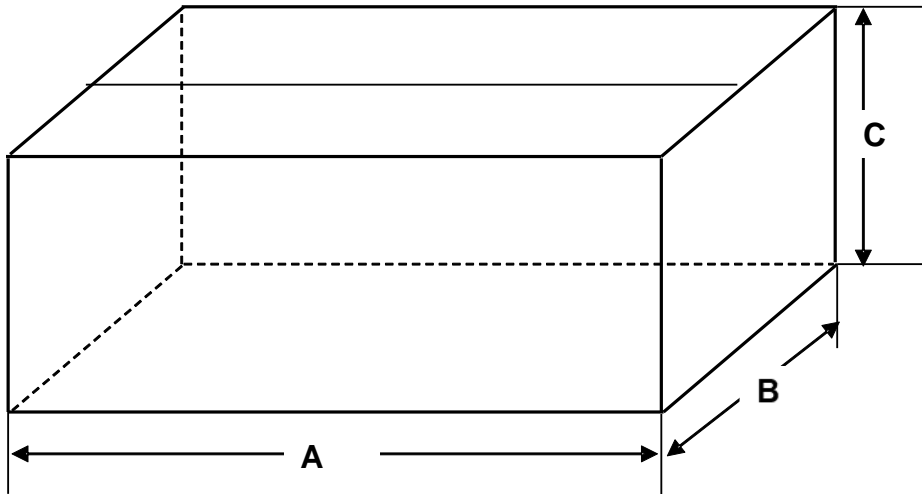


3. INNERBOX



Packaging Information:

4. CARTON



Unit:mm

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

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