

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 20 Amperes

FEATURES

- High efficiency
- Reduced high temperature reverse leakage
- Reduced ultra-low forward voltage drop
- Qualified according to AEC-Q101 Rev_C

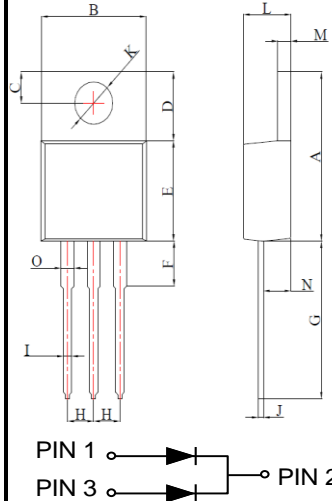
APPLICATION

- DC to DC converter
- AC to DC Adaptors

MECHANICAL DATA

- Case: JEDEC TO-220AB
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.
- Lead free finish, RoHS compliant
- Weight: 1.927 grams (Approximate)
- Marking code: G20C100CVW

TO-220AB(V)



TO-220AB(V)		
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	1.14
J	0.40	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	1.70

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}	100	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum Average rectified output current	$I_{(AV)}$	20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	I_{FSM}	150	A
Non repetitive peak reverse current	I_{RSM}	3	A
Operating junction and Storage Temperature range	T_J, T_{STG}	-55 ~ +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note1)	$I_F=10A$ $T_J=25°C$ $T_J=125°C$	V_F	-- 0.68	0.80 0.75	V
Leakage current	$V_R=100V$ $T_J=25°C$ $T_J=125°C$	I_R	-- 3.3	100 15	uA mA

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical junction capacitance (Note 2)	C_J	440	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	R_{thJc} R_{thJl}	3 2	°C/W

Note :

- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
- (3) The unit mounted on copper heatsink (75mm x 75mm x 2mm)
- (4) Thermal resistance test performed in accordance with JESD-51.

REV.-1, Dec -2020, KTHC215

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FIG.1 FORWARD CURRENT DERATING CURVE

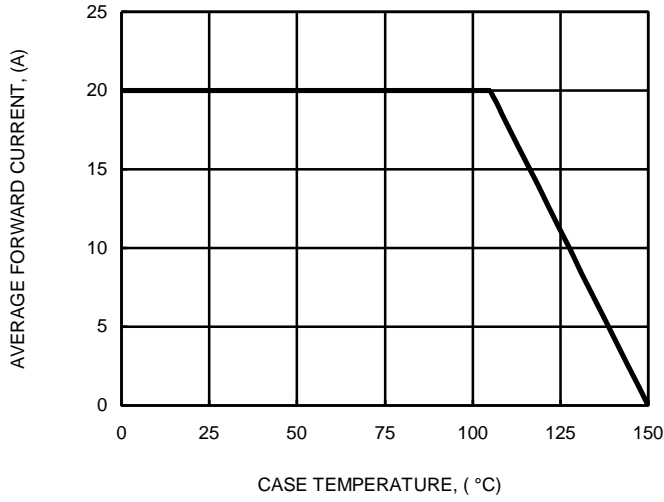


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

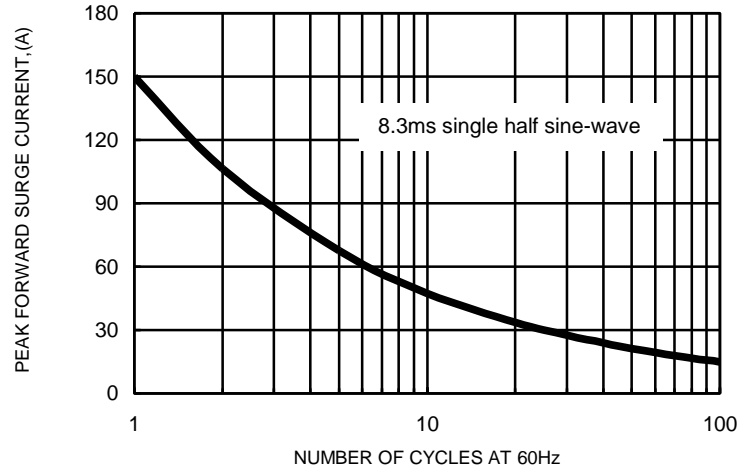


FIG.3 TYPICAL FORWARD CHARACTERISTICS

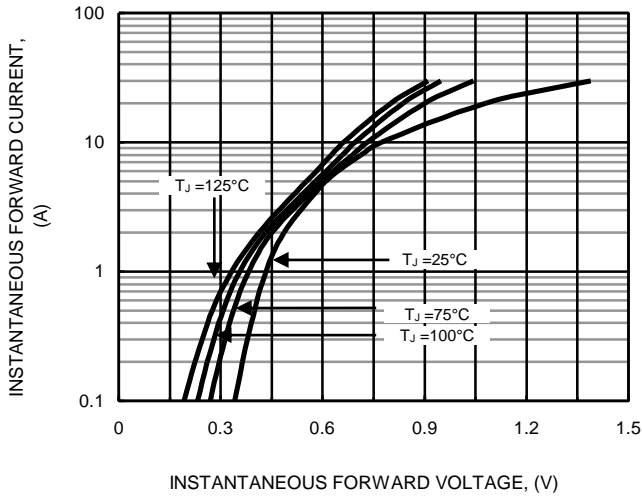


FIG.4 TYPICAL JUNCTION CAPACITANCE

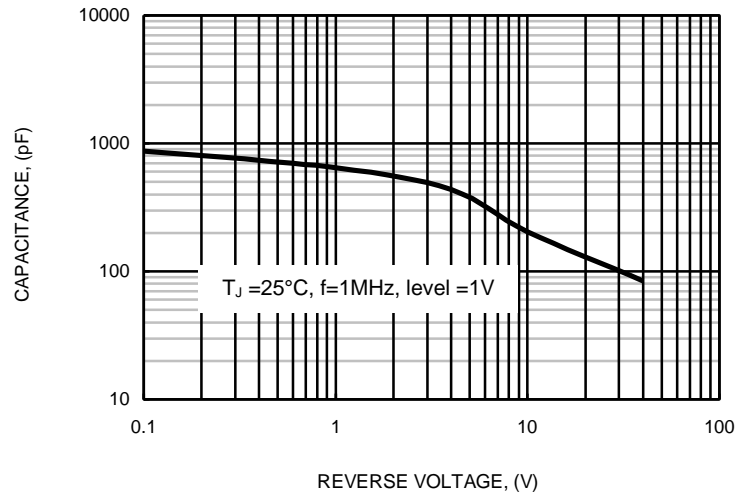


FIG.5 TYPICAL REVERSE CHARACTERISTICS

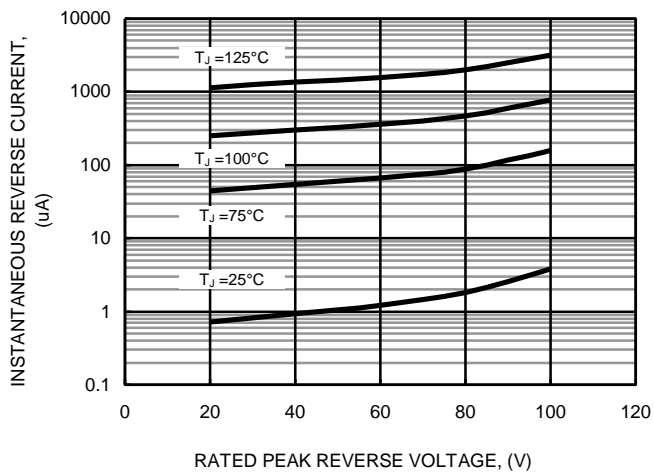


FIG.6- AVERAGE FORWARD POWER DISSIPATION VS AVERAGE FORWARD CURRENT

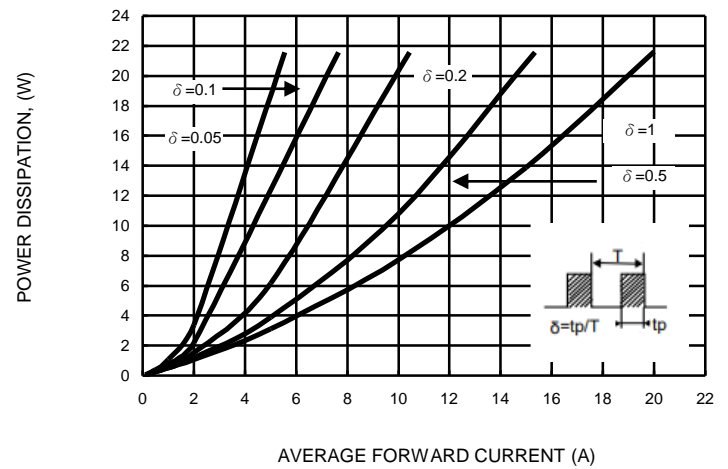
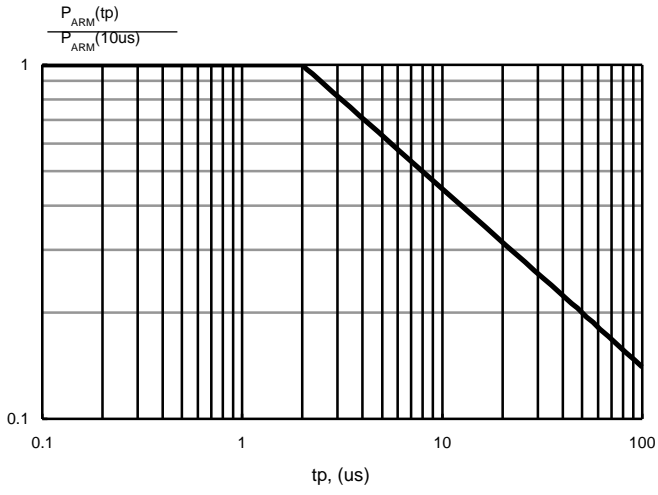
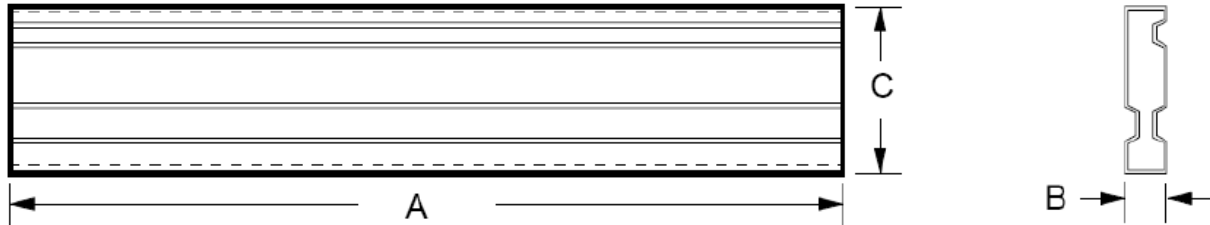


FIG.7- NORMALIZED AVALANCHE POWER
DERATING VERSUS PULSE DURATION

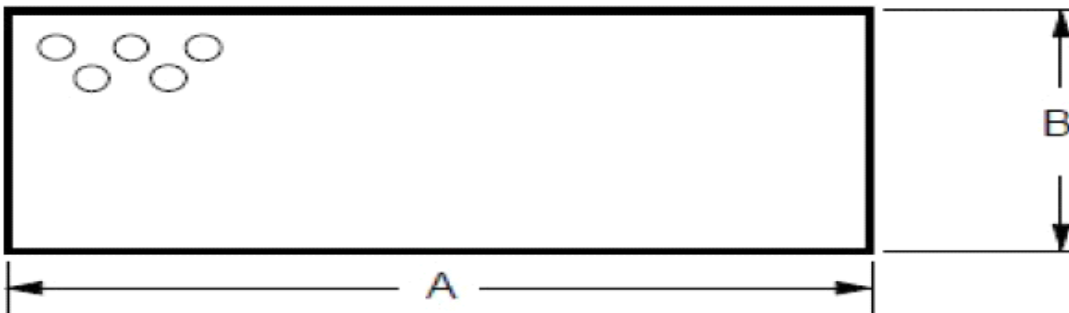


Packaging Information:

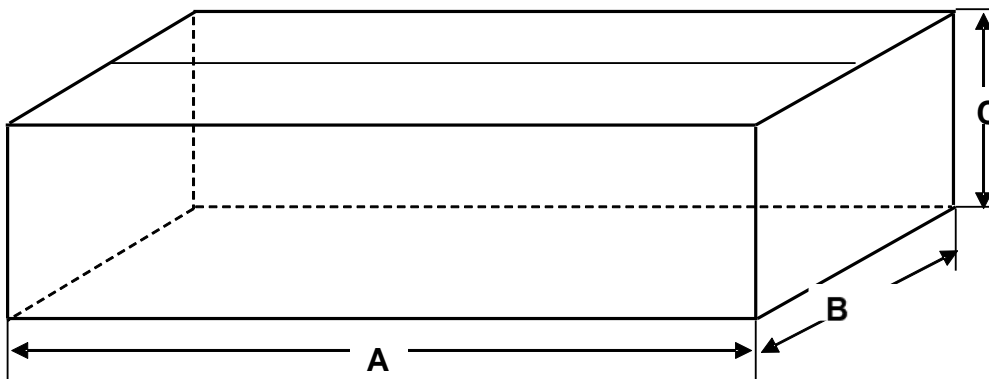
1. TUBE



2. AIR BAG

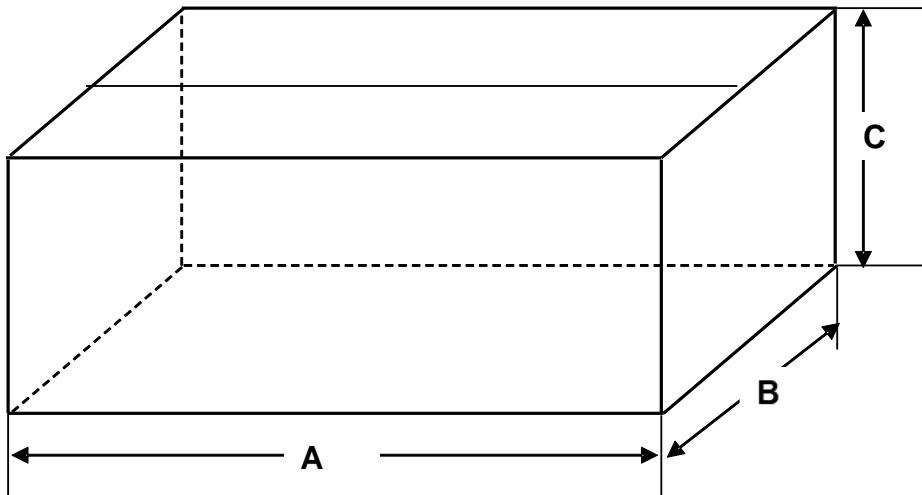


3. INNERBOX



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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