

**TRENCH SCHOTTKY RECTIFIER**

**REVERSE VOLTAGE – 120 Volts**  
**FORWARD CURRENT – 30 Amperes**

**FEATURES**

- High junction temperature capability
- Negligible switching losses
- Good trade off between leakage current and forward voltage drop
- Qualification is according to AEC-Q101 Rev\_D

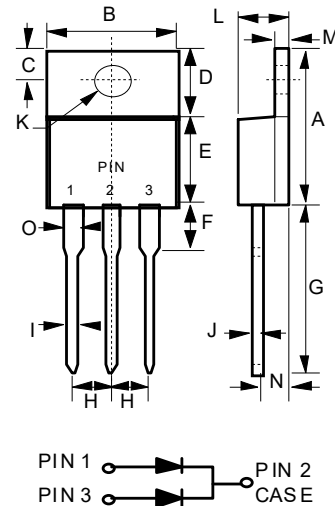
**APPLICATION**

- High frequency miniature switch mode of adaptors
- On-board DC-DC converters
- Use in high frequency inverters

**MECHANICAL DATA**

- Case: JEDEC TO-220AB
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free"
- Lead Free Finish, RoHS Compliant
- Polarity: As marked on the body
- Weight: 0.07 ounces, 1.927grams(Approximate)
- Marking code: G30H120CTW

**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 RATING**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	120	V
Maximum DC blocking voltage	$V_{DC}$	120	V
Maximum Average rectified forward current	$I_{(AV)}$	30	A
Non repetitive peak reverse current	$I_{RSM}$	3	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	$I_{FSM}$	280	A
Operating Junction and Storage temperature range	$T_J, T_{STG}$	-55 ~ +175	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note1)	$I_F = 15A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	$V_F$	-- 0.66	0.84 --	V
Reverse leakage current	$V_R = 120V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	$I_R$	-- 0.7	5 5	uA mA
Typical junction capacitance (Note 2)		$C_J$		980	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	$R_{thJc}$ $R_{thJl}$	3 1	°C/W

**Note :**

- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (3) Thermal resistance test performed in accordance with JESD-51.
- (4) The unit mounted on fin-type heatsink 45mm x 30mm x 23.8mm.

REV.-1,Nov-2019,KTHC211

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# RATING AND CHARACTERISTIC CURVES G30H120CTW



FIG.1- FORWARD CURRENT DERATING CURVE

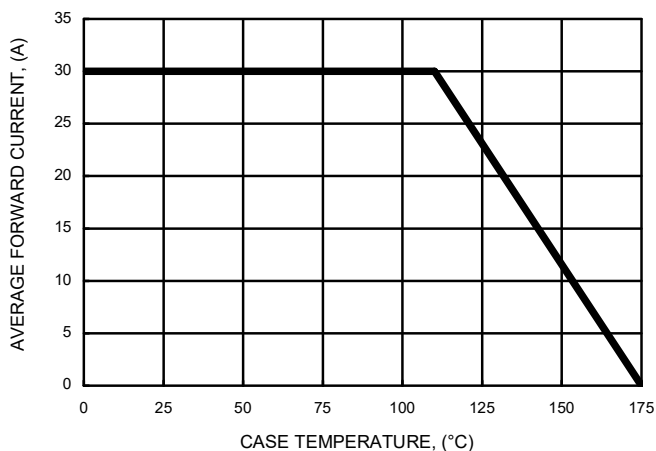


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

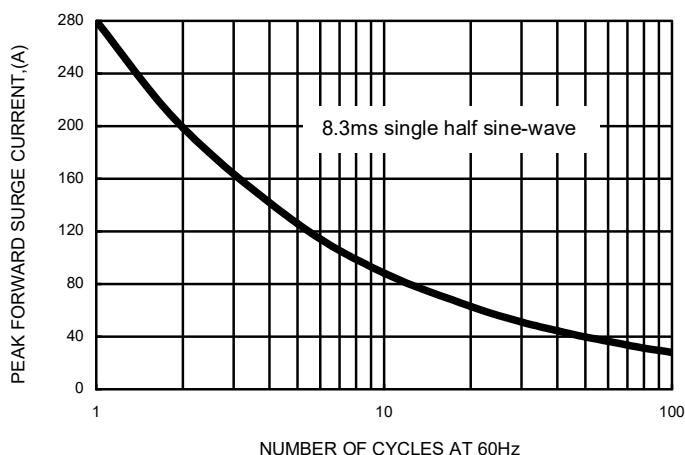


FIG.3- TYPICAL FORWARD CHARACTERISTICS

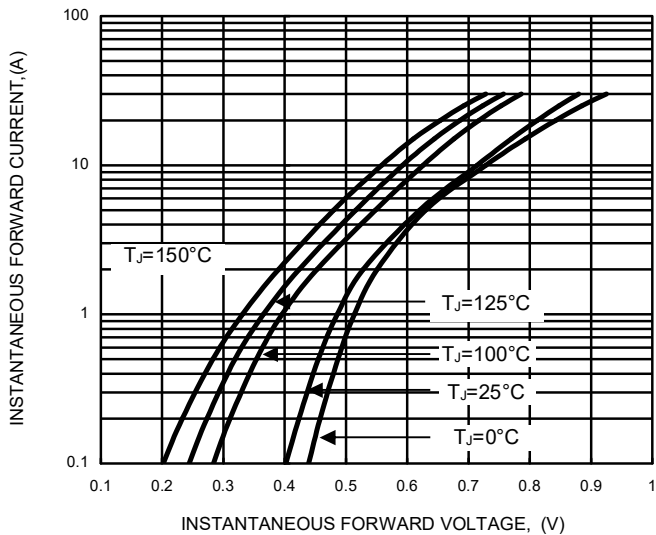


FIG.4- TYPICAL JUNCTION CAPACITANCE

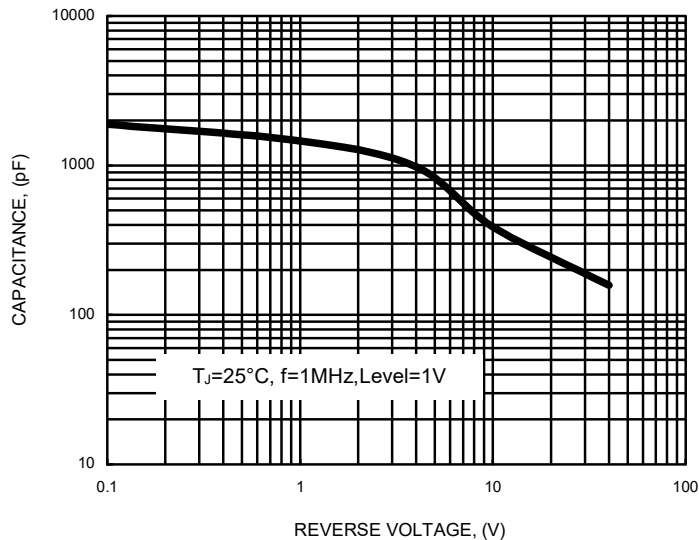
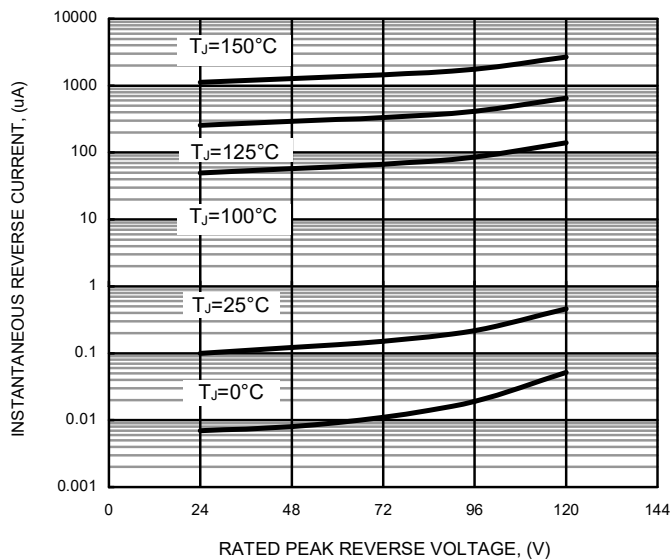
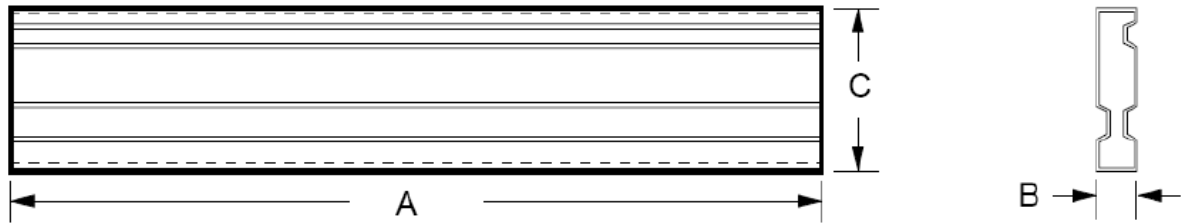


FIG.5- TYPICAL REVERSE CHARACTERISTICS

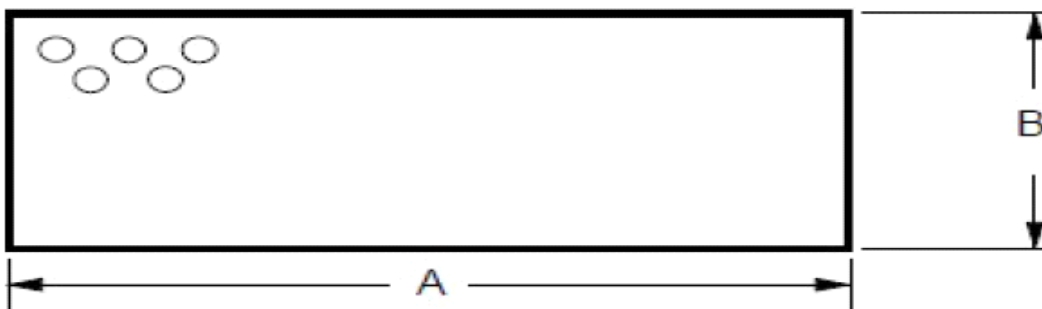


Packaging Information:

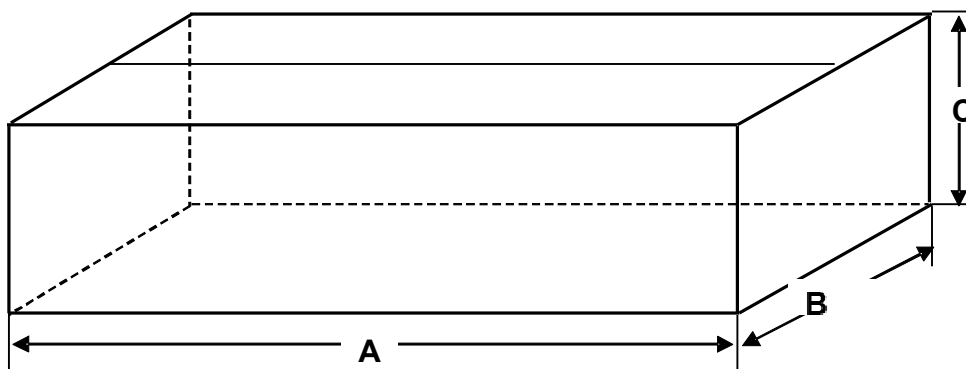
1. TUBE



2. AIR BAG

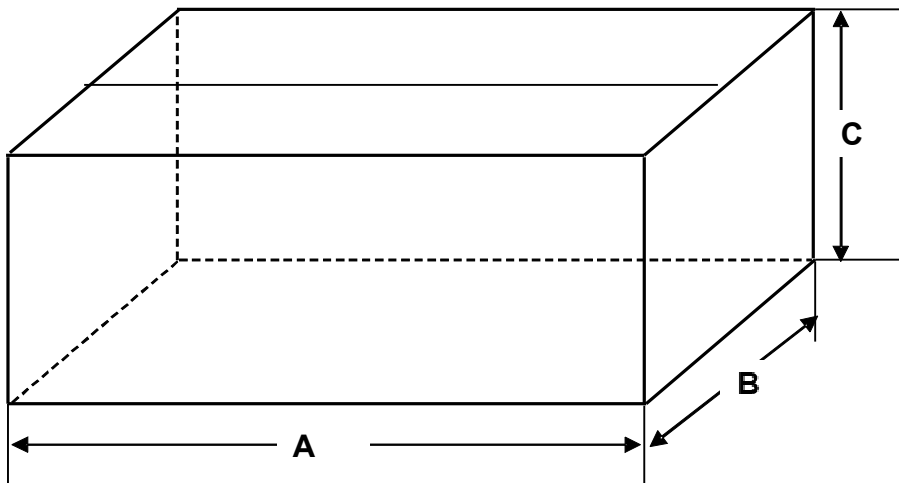


3. INNERBOX



**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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