

**TRENCH SCHOTTKY RECTIFIER**

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

**FEATURES**

- High efficiency
- Reduced high temperature reverse leakage
- Reduced ultra-low forward voltage drop
- Qualification is according to AEC-Q101 Rev\_C

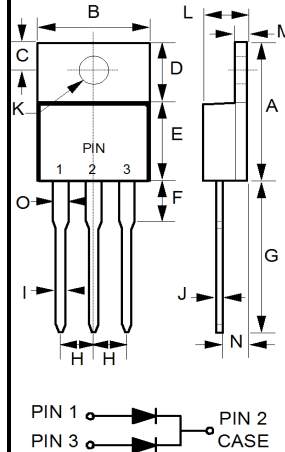
**APPLICATION**

- DC to DC converter
- AC to DC Adaptors

**MECHANICAL DATA**

- Case: JEDEC TO-220AB
- Case Material: “Green” molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) “Halogen-free”.
- Lead free finish, RoHS compliant
- Weight: 1.927 grams (Approximate)
- Marking code: G30E120CTW

**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	$V_{RRM}$	120	V
Maximum DC blocking voltage	$V_{DC}$	120	V
Maximum Average rectified output current	$I_{(AV)}$	30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	$I_{FSM}$	270	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)	$I_F=15A$ $T_J=25^\circ C$ $T_J=125^\circ C$	$V_F$	-- 0.69	0.91 0.78	V
Leakage current	$V_R=120V$ $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	-- 7.0	40 21	uA mA
Typical junction capacitance (Note 2)		$C_J$		510	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	$R_{thJ_C}$ $R_{thJ_L}$	1 2	°C/W

**Note :**

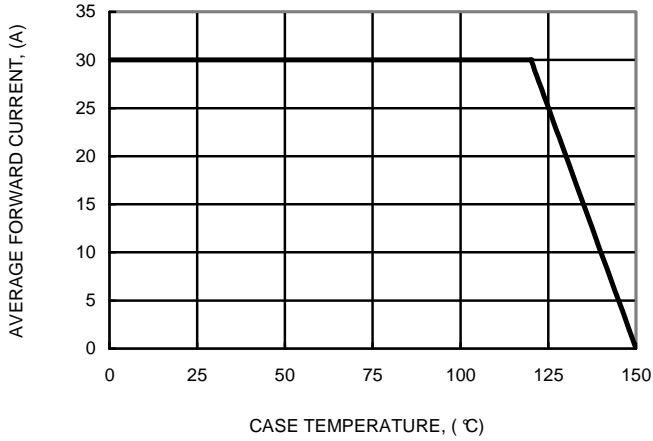
- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied voltage of 4.0V DC.
- (3) Thermal resistance test performed in accordance with JESD-51.
- (4) The unit mounted on fin type heatsink (50.5mm x 22mm x 50.3mm) in free air condition

REV.-0 , Dec -2016, KTHC147

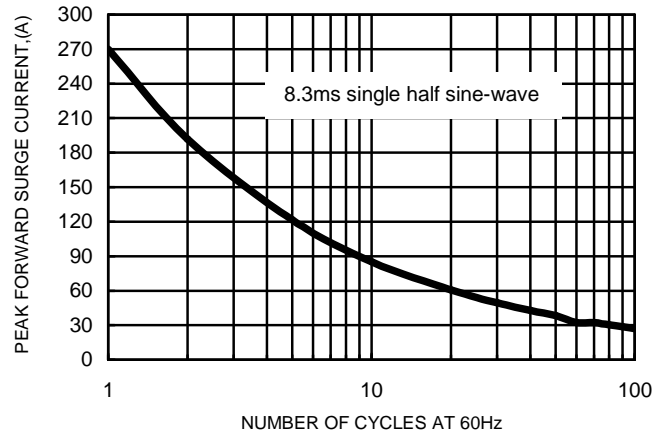
**RATING AND CHARACTERISTIC CURVES  
G30E120CTW**



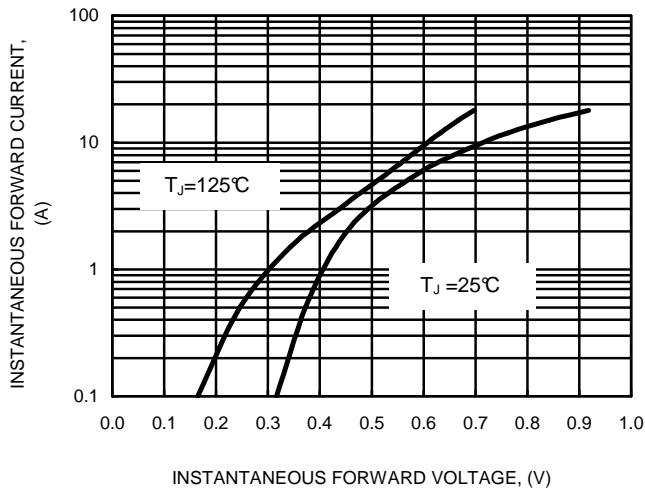
**FIG.1 FORWARD CURRENT DERATING CURVE**



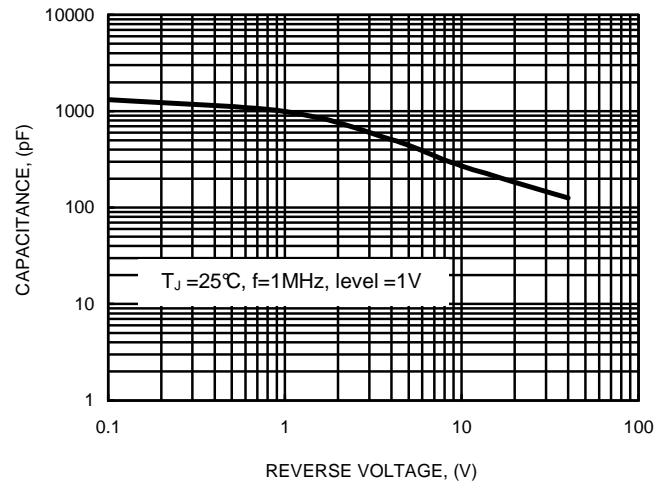
**FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT**



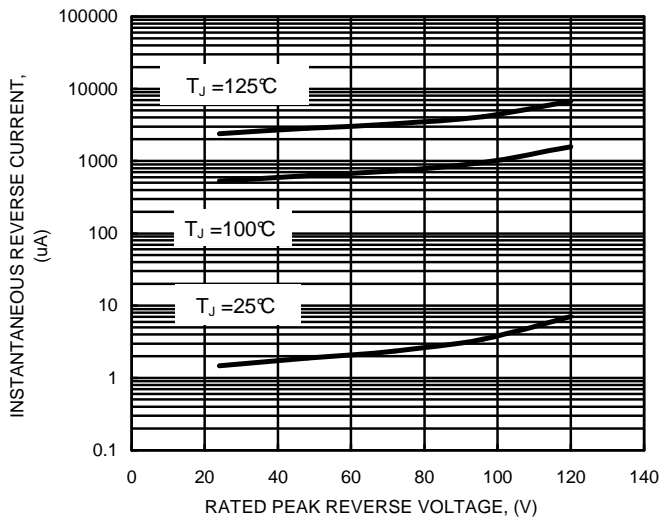
**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**



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