

**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

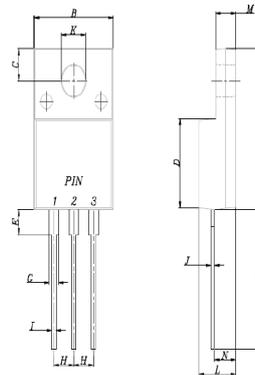
**APPLICATION**

- DC to DC converter
- AC to DC Adaptors

**MECHANICAL DATA**

- Case: JEDEC TO-220ABFP
- Case Material: “Green” molding compound, UL flammability classification 94V-0,(No Br. SB. Cl.) “Halogen-free”.
- Lead free finish, RoHS compliant
- Weight: 1.558 grams (Approximate)
- Marking code: G30C120CTFW

**ITO-220(S)AB**



ITO-220(S)AB		
DIM	MIN	MAX
A	14.95	15.95
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	2.10	2.50
F	13.00	13.70
G	1.15	1.37
H	2.40	2.70
I	0.50	0.80
J	0.45	0.70
K	3.00	3.30
L	4.46	4.87
M	2.48	2.80
N	2.50	2.80

All dimension 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.	$I_{FSM}$	200	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)	$I_F=15A$ $T_J=25^\circ C$ $T_J=125^\circ C$	$V_F$	--	0.97	V
			--	0.73	
Leakage current	$V_R=120V$ $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	--	35	uA
			5.3	20	
Typical junction capacitance (Note 2)		$C_J$		370	pF

**THERMAL CHARACTERISTICS**

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

**Note :**

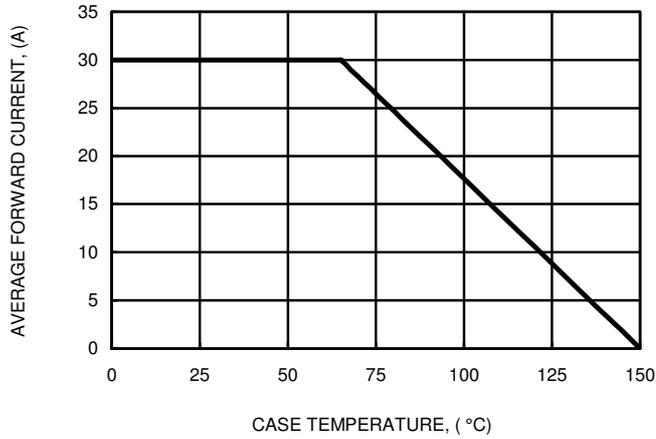
REV.-0 , May-2018, KTHC188

- (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 cooper heatsink ( 251.5mm x 151.5mm x 11.8mm ) & Aluminum plate ( 29.5mm x 35.8mm x 1.6mm ) in free air condition

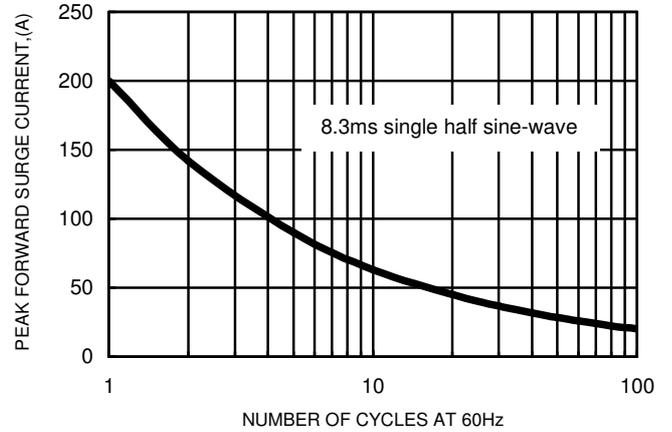
# RATING AND CHARACTERISTIC CURVES G30C120CTFW



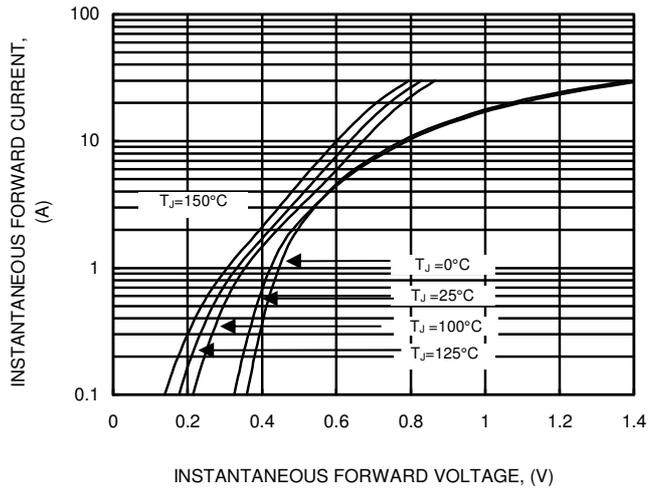
**FIG.1 FORWARD CURRENT DERATING CURVE**



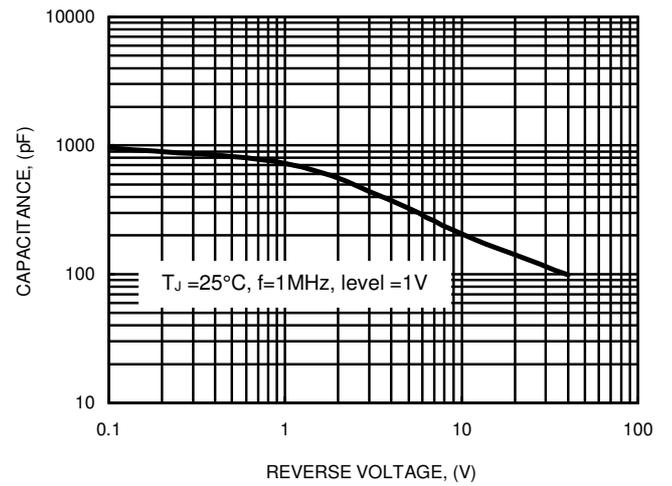
**FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT**



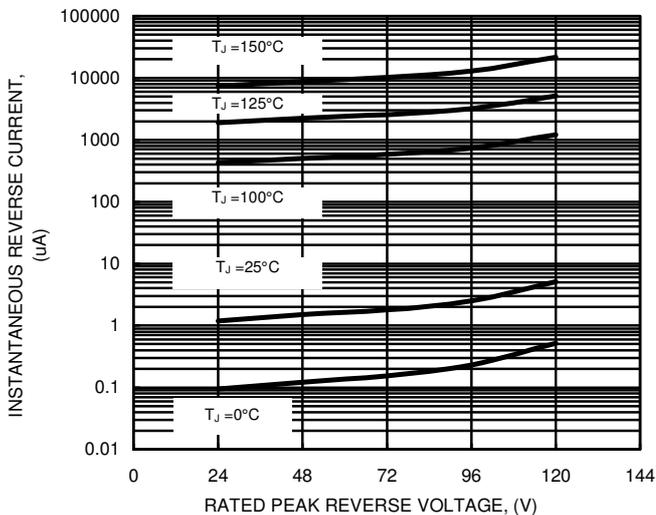
**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**



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