

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 120 Volts
FORWARD CURRENT – 40 Amperes

FEATURES

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

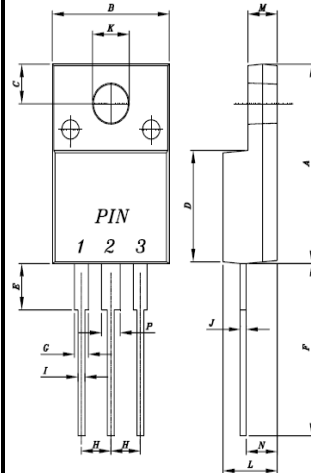
APPLICATION

- DC to DC converter
- AC to DC Adaptors

MECHANICAL DATA

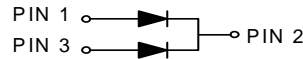
- Case: JEDEC TO-220ABFP
- Case Material: "Green" molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Lead free finish, RoHS compliant
- Weight: 1.558 grams (Approximate)
- Marking code: G40E120CTFW

ITO-220AB



ITO-220AB		
DIM	MIN	MAX
A	14.95	15.95
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	3.30	3.90
F	13.00	13.70
G	1.15	1.70
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
P	1.50	1.90

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	$I_{(AV)}$	40	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	I_{FSM}	300	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)	$I_F=20A$ $T_J=25^\circ C$ $T_J=125^\circ C$	V_F	-- 0.69	0.82 0.74	V
Leakage current	$V_R=120V$ $T_J=25^\circ C$ $T_J=125^\circ C$	I_R	-- 12	60 30	μA mA
Typical junction capacitance (Note 2)		C_J		860	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	R_{thJC} R_{thJL}	1 5	°C/W

Note :

REV.-1 , Apr-2017, KTHC152

- (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 (85.2mm x 32mm x 24mm) and cathode pin mounted on Aluminum heatsink (35.8mm x 30mm x 1.45mm) in free air condition

**RATING AND CHARACTERISTIC CURVES
G40E120CTFW**



FIG.1 FORWARD CURRENT DERATING CURVE

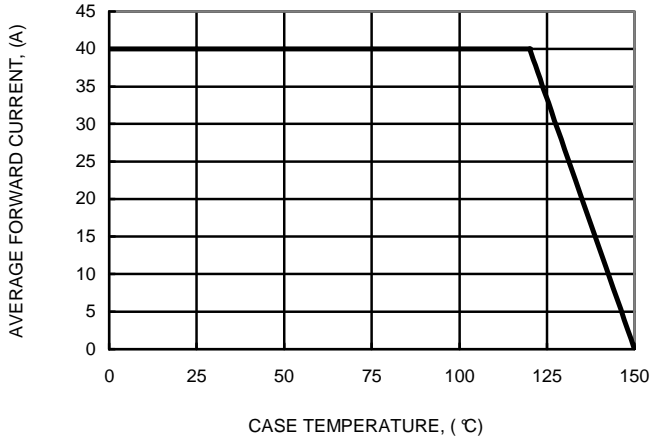


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

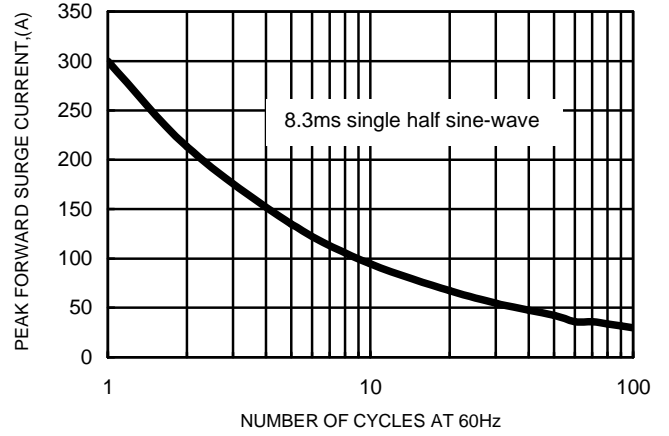


FIG.3 TYPICAL FORWARD CHARACTERISTICS

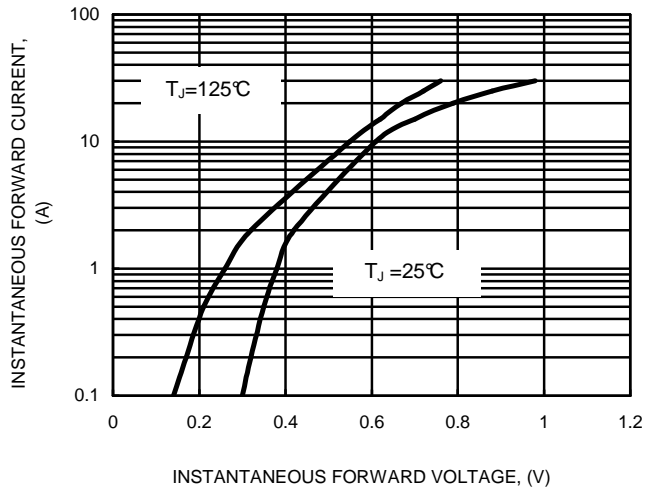


FIG.4 TYPICAL JUNCTION CAPACITANCE

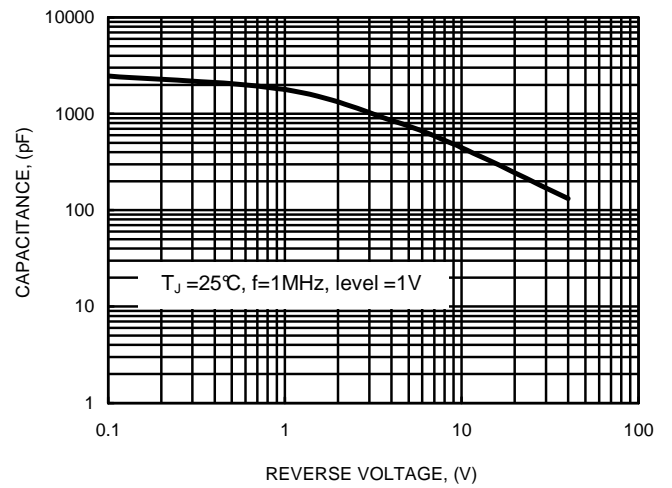
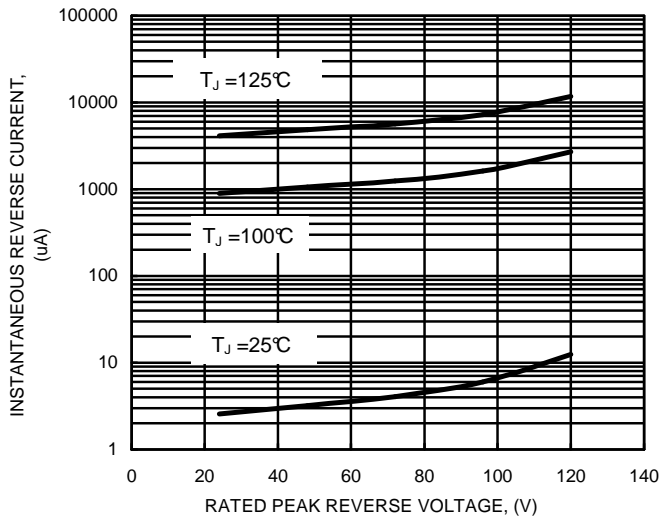


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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