

TRENCH SCHOTTKY RECTIFIER

**REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 20 Amperes**

FEATURES

- Trench Schottky technology
- Low power loss, high efficiency
- Low forward drop voltage
- Qualified to AEC-Q101 Rev_C

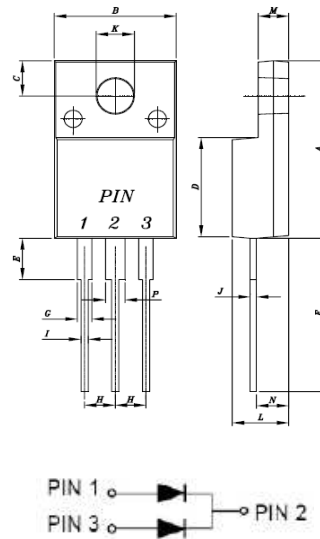
APPLICATION

- For use in low voltage, high frequency inverters, free wheeling
- Polarity protection applications

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Terminals: Matte tin
- Lead free finish, RoHS compliant
- Polarity: As marked on the body
- Weight: 0.05 ounces, 1.558 grams(Approximate)
- Mounting Position: Any

ITO-220AB(W/B)



ITO-220AB(W/B)		
DIM	MIN	MAX
A	14.95	15.70
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	3.30	3.80
F	13.0	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 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
Average rectified output current per device	I_F	20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Peak Repetitive Forward Current Per diode (Square Wave, 20KHz, $T_c=120^\circ\text{C}$)	I_{FRM}	20	A
Operating junction and Storage temperature range	T_J, T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F = 5A$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	V_F	0.55 0.50	-- --	V
	$I_F = 10A$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$		-- --	0.79 0.68	
Leakage current	$V_R = 100V$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_R	-- --	150 25	μA mA
Typical junction capacitance (Note 2)		C_J	430		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	R_{thJc}	1.7	°C/W
	R_{thJl}	3	
	R_{thJa}	11	

Note :

- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (3) Thermal resistance junction to case, lead and ambient. Device mounted on 100 mm x 100 mm x 10 mm copper plate.

REV. 3, Apr-2016, KTHC112

FIG.1- FORWARD CURRENT DERATING CURVE

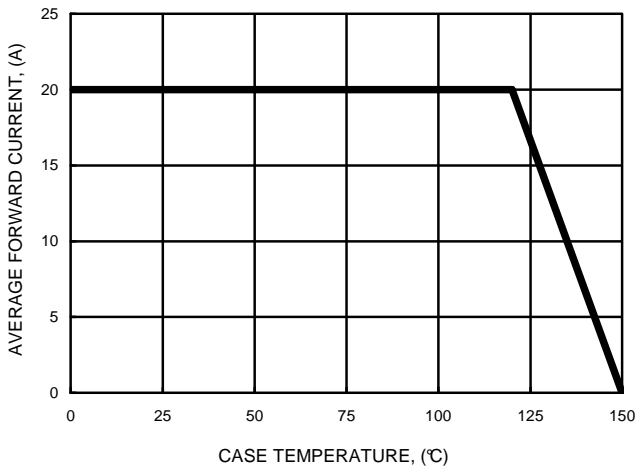


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

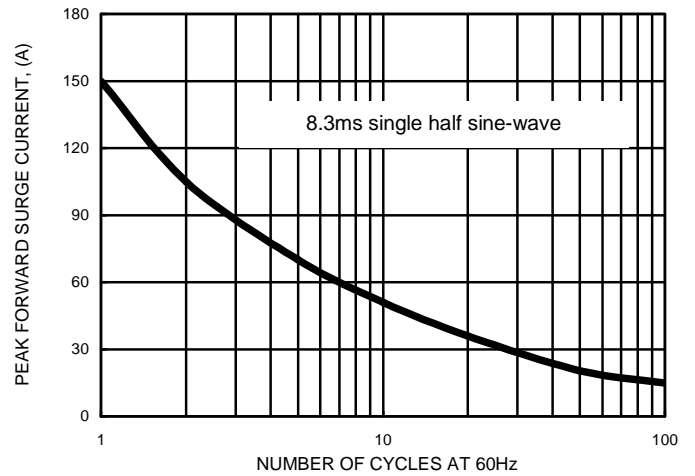


FIG.3- TYPICAL FORWARD CHARACTERISTICS

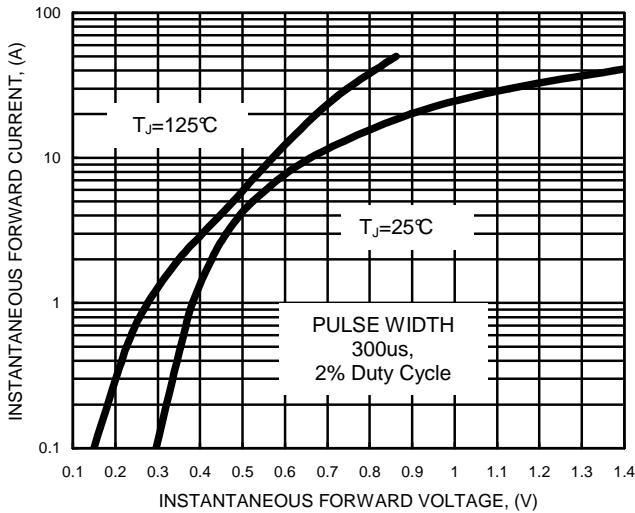


FIG.4- TYPICAL JUNCTION CAPACITANCE

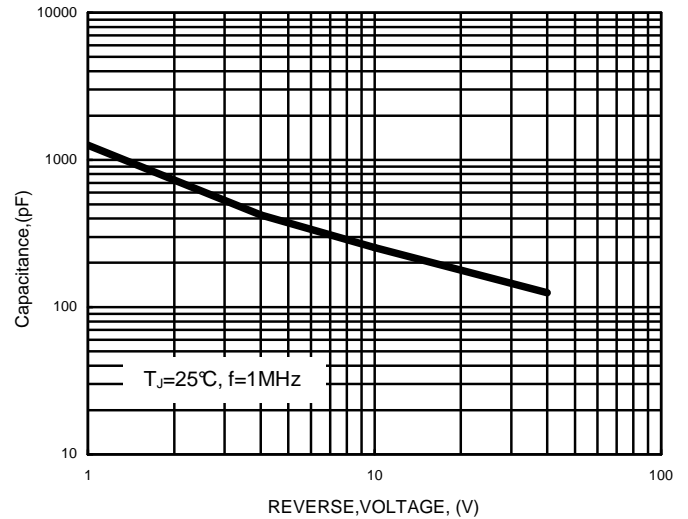
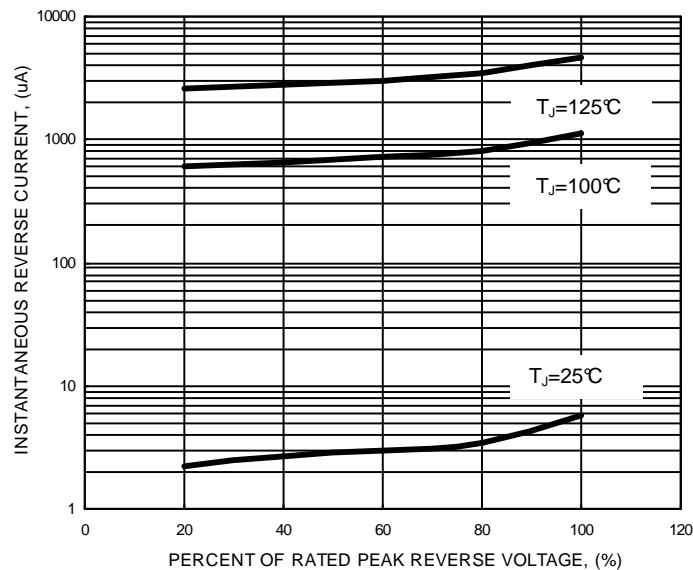


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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