LITE-ON SEMICONDUCTOR

G40100CTFW

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 40 Amperes

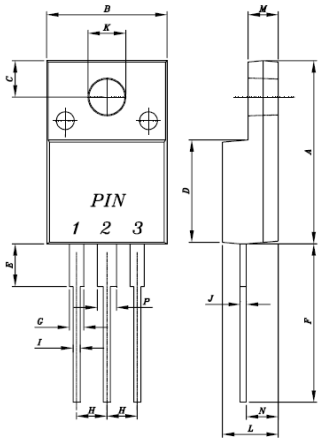
FEATURES

- Trench schottky technology
- Low power loss, high efficiency
- Low forward drop voltage
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications

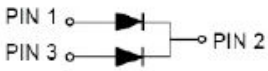
MECHANICAL DATA

- 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: 0.06 ounces, 1.70 grams
- Mounting Position: Any

ITO-220AB(W/B)



ITO-220AB (WB)		
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	13.0	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	@Tc = 120°C	I_F	40	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	250	A
Peak Repetitive Forward Current Per diode (Square Wave, 5KHz, Tc=120°C)		I_{FRM}	60	A
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP.	MAX	UNIT
Forward voltage (Note1)	IF = 10A	T_J = 25°C T_J = 125°C	V_F	0.54 0.45	-- --	V
	IF = 20A	T_J = 25°C T_J = 125°C		-- --	0.73 0.67	
Leakage current	VR = 100V	T_J = 25°C T_J = 125°C	I_R	-- --	400 45	uA mA
Typical junction capacitance (Note2)			C_J	850		pF

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note3)	$RthJ_C$ $RthJ_L$ $RthJ_A$	1 3 10	°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 junction to case, lead and ambient. Device mounted on 200 mm x 200 mm x 10 mm copper plate.

REV. 2, OCT-2014, KTHC114

RATING AND CHARACTERISTIC CURVES
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FIG.1- FORWARD CURRENT DERATING CURVE

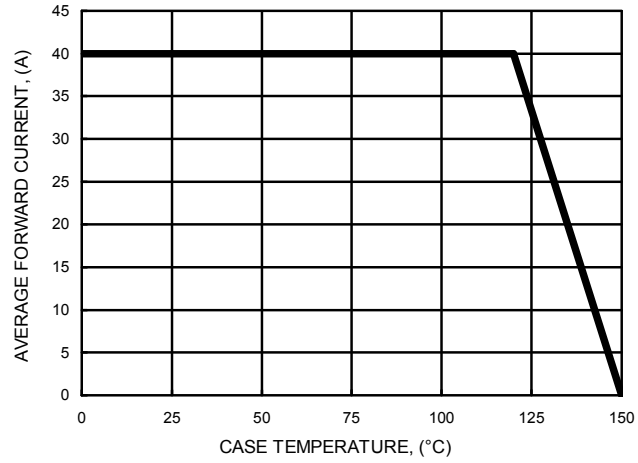


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

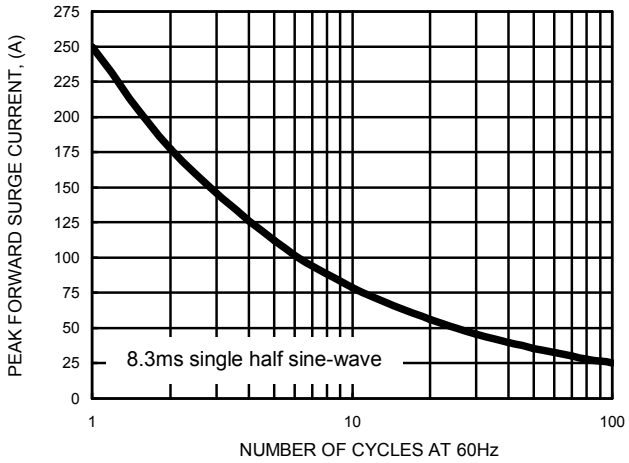


FIG.3- TYPICAL FORWARD CHARACTERISTICS

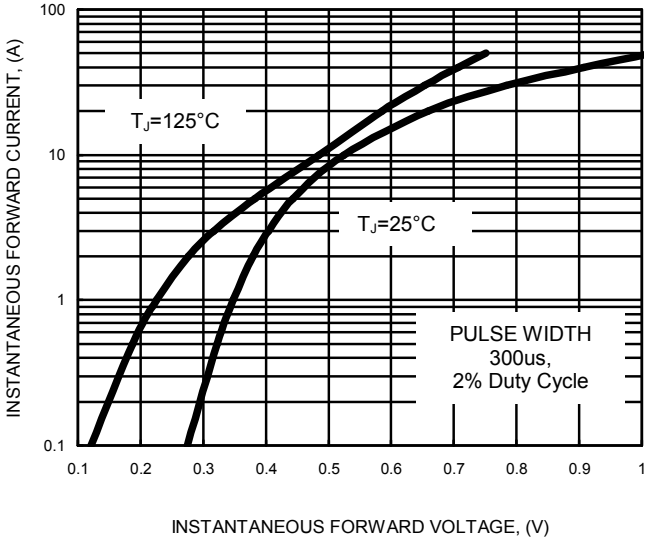


FIG.4- TYPICAL JUNCTION CAPACITANCE

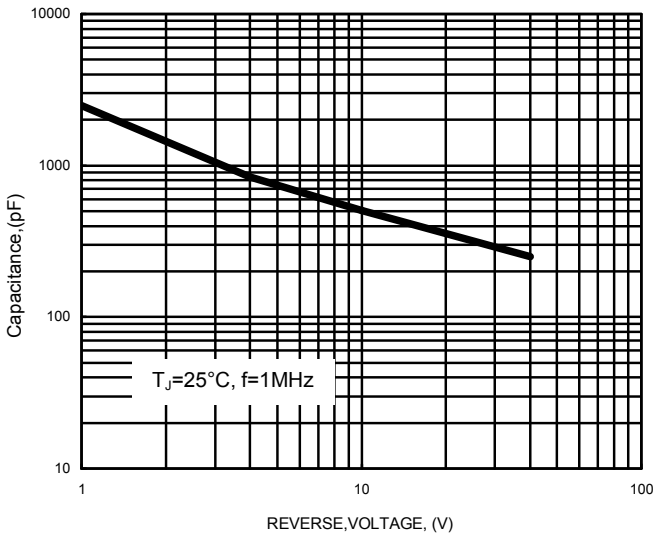
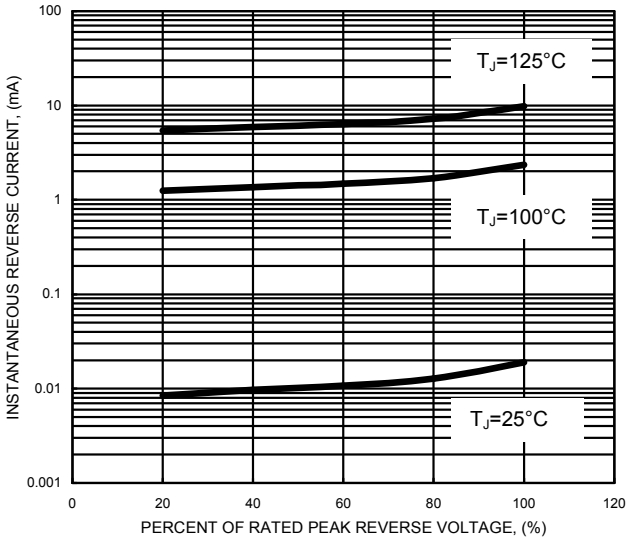


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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