LITE-ON SEMICONDUCTOR

G3045CTW

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 45 Volts
FORWARD CURRENT – 30 Amperes

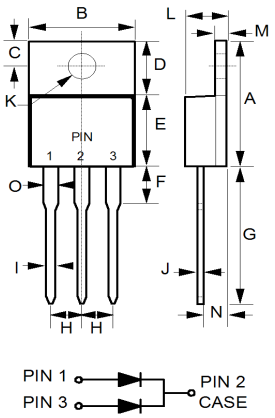
FEATURES

- Trench schottky technology
- Low power loss, high efficiency
- Low forward drop voltage
- Qualified according to AEC-Q101 Rev_C
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0,"Halogen-free".
- Terminals : Matted Tin
- Lead Free Finish, RoHS compliant
- Polarity : As marked on the body
- Wight : 2.0275grams(Approximate)
- Mounting position : Any
- Max.mounting torque = 0.5 N.m (5.1 Kgf-cm)
- Marking code:G3045CTW

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}	45	V
Maximum DC blocking voltage		V_{DC}	45	V
Average rectified output current	@ T_C = 110°C	$I_{(AV)}$	30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.		I_{FSM}	250	A
Operating and Storage temperature range		T_J ,T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP.	MAX	UNIT
Forward voltage (Note1)	I_F=15A	T_J=25°C T_J =125°C	V_F	0.48 0.42	0.52 0.46	V
Leakage current	V_R=45V	T_J =25°C T_J =125°C	I_R	60 20	500 100	uA mA
Typical junction capacitance (Note2)			C_j	1850		pF

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP	UNIT
Typical thermal resistance (Note3,4)	$RthJ_c$	3	°C/W

Note :

(1) 300us pulse width, 2% duty cycle.
(2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
(3) Thermal Resistance Junction to Case,Lead and Ambient
(4) Thermal Resistance test performed in accordance with JESD-51

REV-2. Sep.-2019, KTHC121

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RATING AND CHARACTERISTIC CURVES
G3045CTW

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

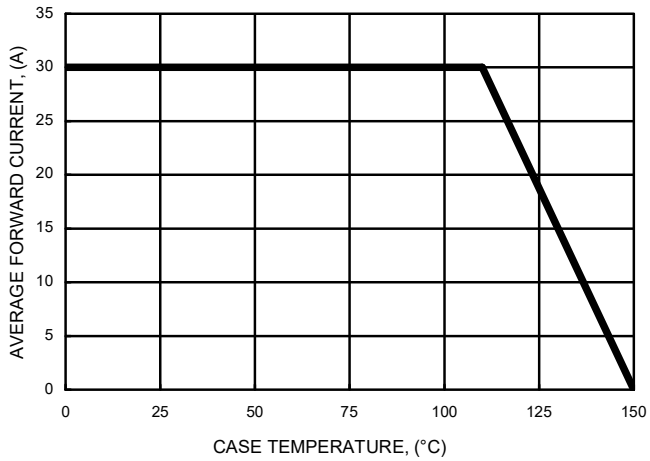


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

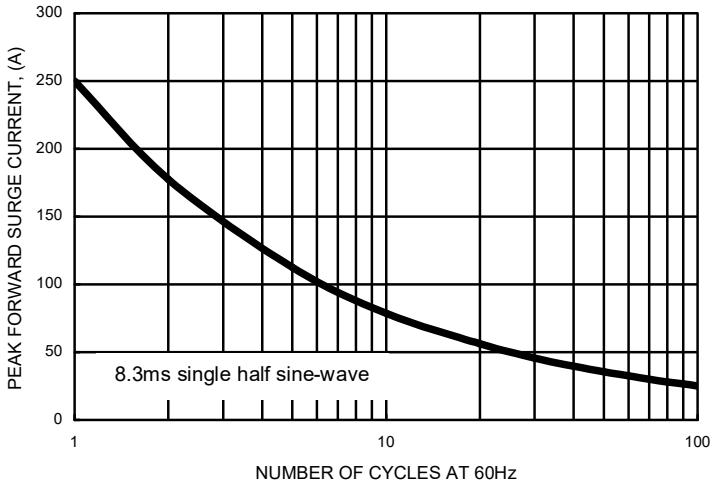


FIG.3- TYPICAL FORWARD CHARACTERISTICS

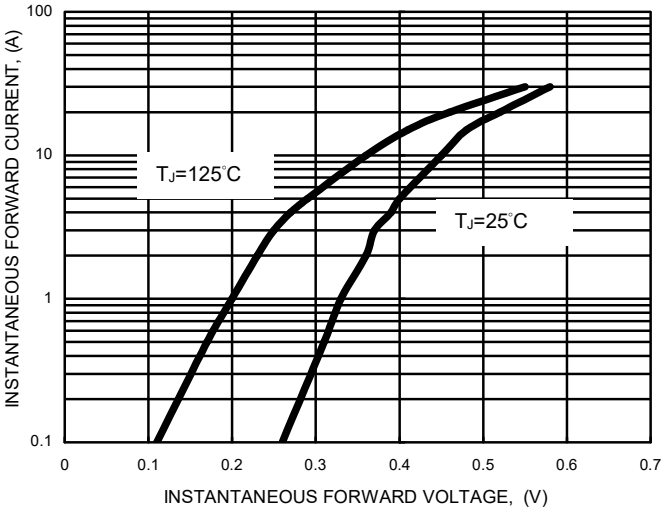


FIG.4- TYPICAL JUNCTION CAPACITANCE

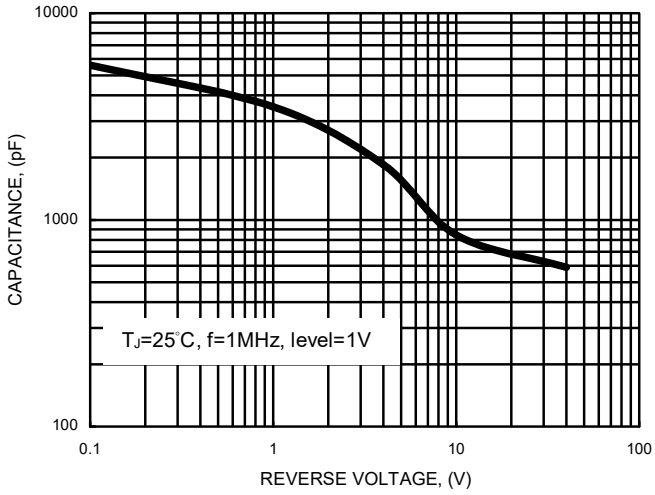
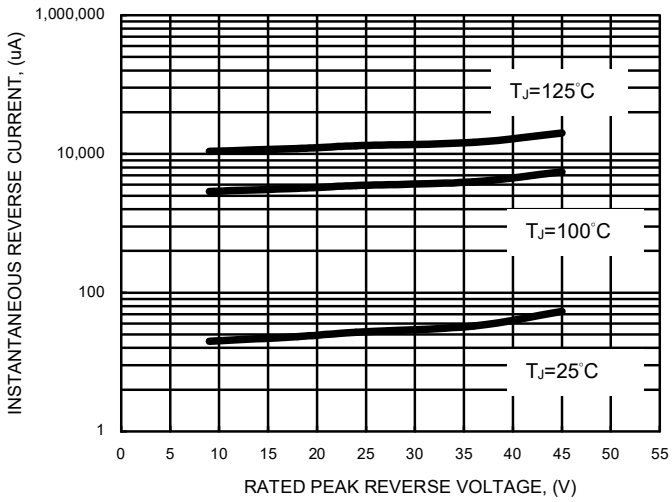


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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