LITE-ON SEMICONDUCTOR

G40E100CTSW

TRENCH SCHOTTKY RECTIFIER

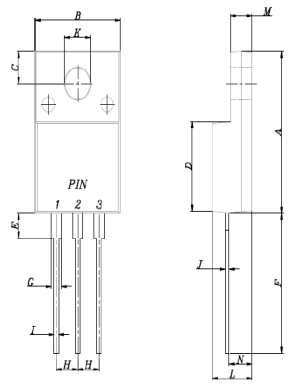
REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 40 Amperes

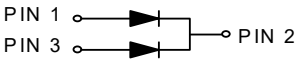
FEATURES
- High efficiency
- Reduced high temperature reverse leakage
- Reduced ultra-low forward voltage drop
- Qualification is according to AEC-Q101 Rev_C

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,“Halogen-free”.
- Lead free finish, RoHS compliant
- Weight: 1.558 grams (Approximate)
- Marking code: G40E100CTSW

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}	100	V
Maximum DC blocking voltage		V_{DC}	100	V
Maximum Average rectified output current	@T_C=95°C	$I_{(AV)}$	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	@tp=2uS	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°C T_J=125°C	V_F	-- --	0.71 0.64	V
Leakage current	V_R=100V	T_J=25°C T_J=125°C	I_R	-- 16.6	100 30	uA mA
Typical junction capacitance (Note 2)			C_J	1005		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	$RthJ_C$ $RthJ_L$	2 3	°C/W

Note :

(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.

REV.-2 ,Sep-2019, KTHC158

RATING AND CHARACTERISTIC CURVES
G40E100CTSW

LITEON

FIG.1 FORWARD CURRENT DERATING CURVE

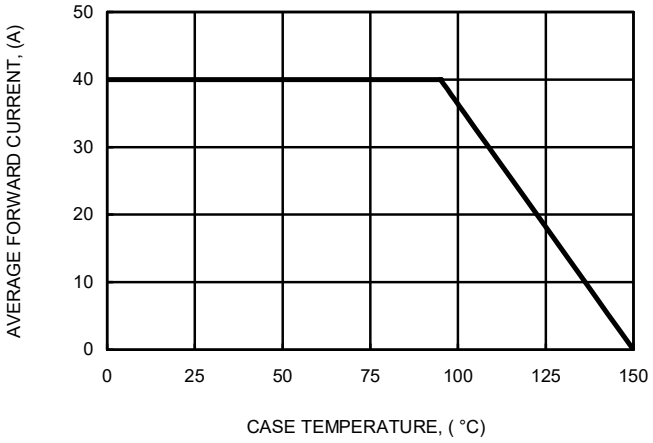


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

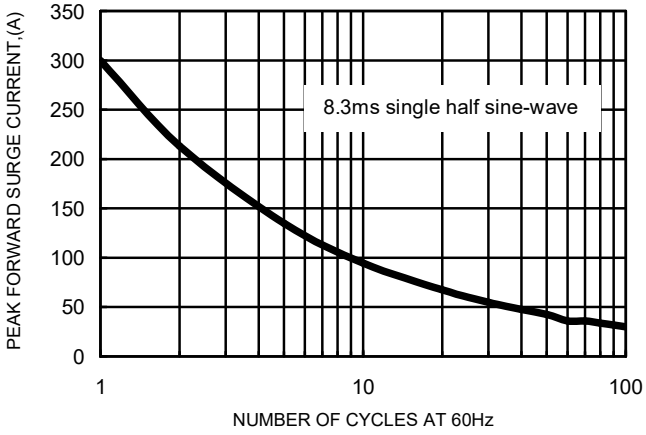


FIG.3 TYPICAL FORWARD CHARACTERISTICS

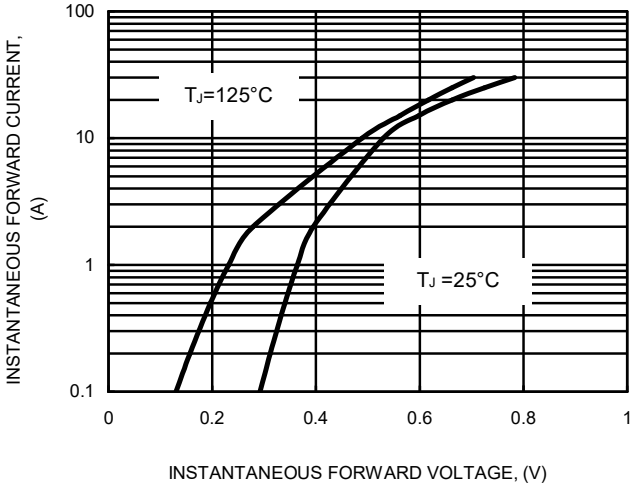


FIG.4 TYPICAL JUNCTION CAPACITANCE

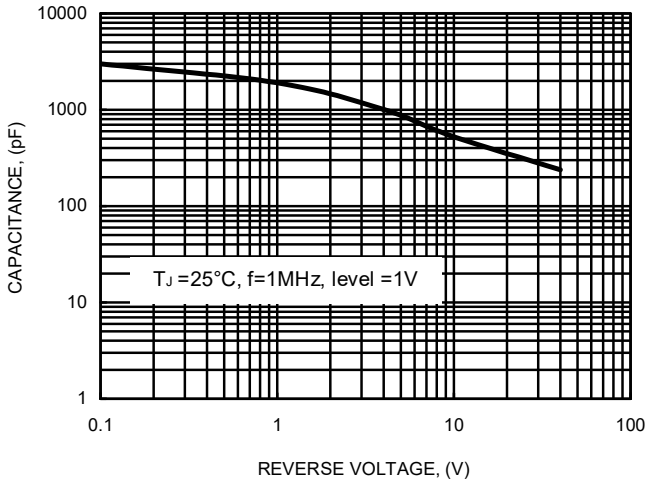
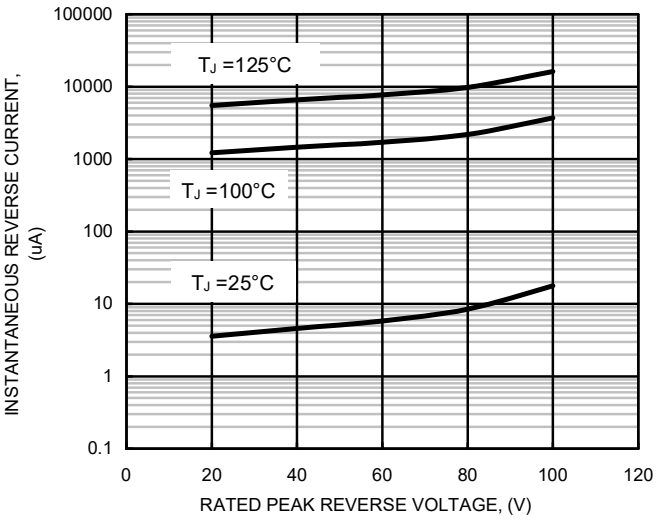
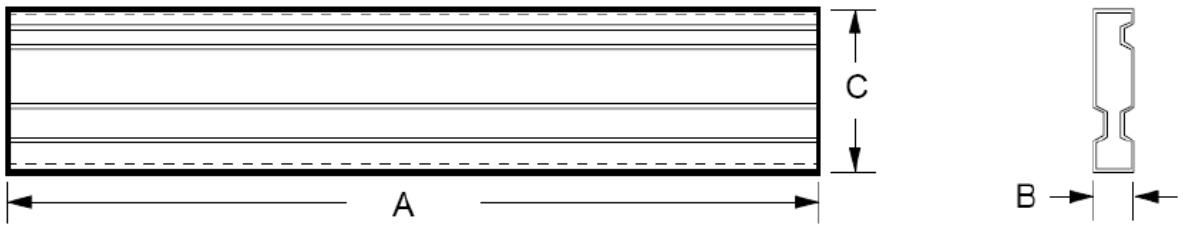


FIG.5 TYPICAL REVERSE CHARACTERISTICS

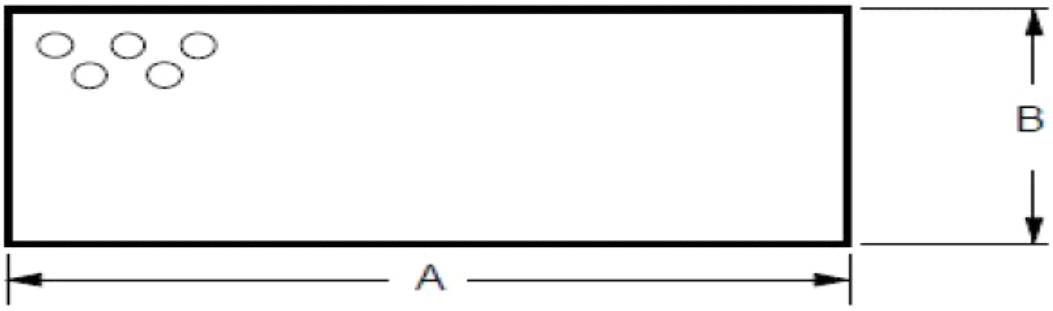


Packaging Information:

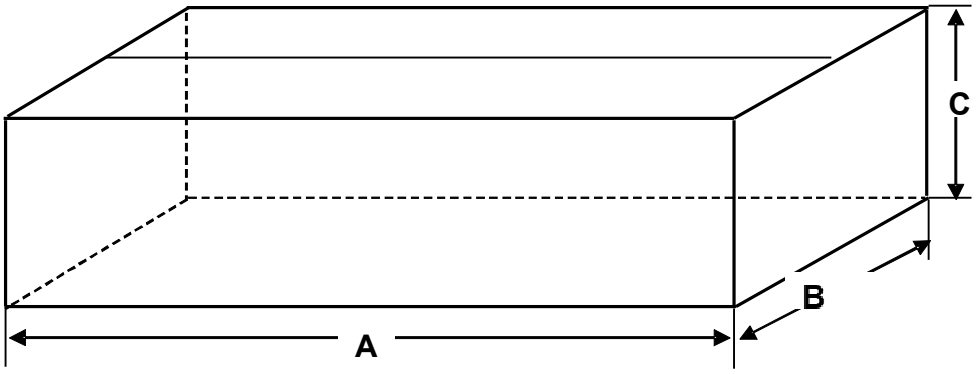
1. TUBE



2. AIR BAG

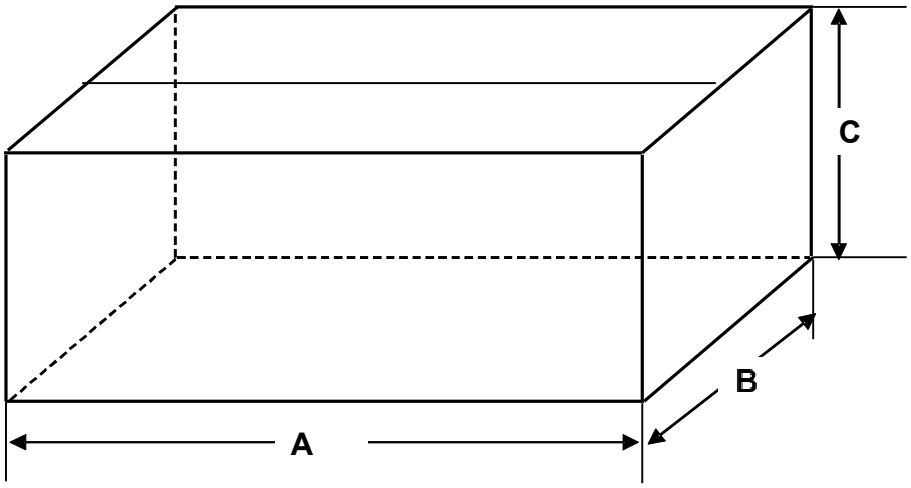


3. INNERBOX



Packaging Information:

4. CARTON



Unit:mm

P/N	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	Q'ty/per	REMARK
TUBE	536	5.6	31.8	50	/
AIR BAG	800	550	/	/	/
INNERBOX	555	165	105	2000	40TUBE
CARTON	575	179	225	4K	2 INNER BOX

LEGAL DISCLAIMER NOTICE

IMPORTANT NOTICE AND DISCLAIMER

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design purchase or use.

ALL INFORMATION ARE PROVIDED AS-IS, EVEN IT HAS QUALIFIED BY THE AEC-Q101 WHICH SATISFY INDUSTRIAL APPLICATION REQUIREMENT, EXCEPT AS EXPRESSLY STATED IN THIS DATA SHEET IS APPLIED FOR AUTOMOTIVE GRADE, LSC MAKE NO WARRANTIES, REPRESENTATION OR GUARANTEE, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, REGARDING ANY MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE LSC TECHNOLOGY.

LSC DOES NOT ASSUME ANY LIABILITY OR COMPENSATION FOR ANY APPLICATION ASSISTANCE OR CUSTOMER PRODUCT DESIGN, AND MAKE NO WARRANTY OR ACCEPT ANY LIABILITY WITH PRODUCTS, WHICH ARE PURCHASED OR USED FOR ANY UNINTENDED OR UNAUTHORIZED APPLICATION.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.