LITE-ON SEMICONDUCTOR

FB545D

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

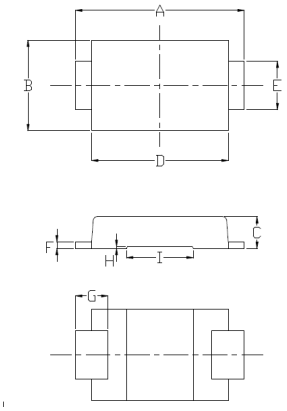
REVERSE VOLTAGE – 45 Volts
FORWARD CURRENT – 5.0 Amperes

FEATURES
- Very low profile package
- High efficiency
- Extremely fast switching
- Negligible switching losses
- Low forward voltage drop, low power loss
- Qualified to AEC-Q101 Rev_C

APPLICATION
- Low voltage high frequency inverters
- DC to DC converter
- Polarity protection application

MECHANICAL DATA
- Case: JEDEC DO-221AC
- Case Material: "Green" molding compound, UL Flammability classification 94V-0,(No Br. Sb. Cl.) "Halogen-free".
- Moisture Sensitivity: Level 1 per J-STD-020C
- Lead free finish, RoHS compliant
- Weight:0.0354 grams (Approximate)
- Marking code: B545

F3-D



F3-D			
DIM.	MIN.	TYP.	MAX
A	4.80	5.20	5.60
B	2.25	2.80	2.95
C	0.90	1.00	1.10
D	3.95	4.20	4.60
E	1.25	1.50	1.65
F	0.15	0.20	0.40
G	0.75	1.00	1.50
H	0.025	0.05	0.075
I	1.90	2.05	2.20
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}	45	V
Maximum DC blocking voltage		V_{DC}	45	V
Maximum Average rectified output current	@T_C=110°C	$I_{(AV)}$	5	A
Peak forward surge current 8.3ms single half sine-wave Superimposed on rated load.		I_{FSM}	140	A
Operating junction and Storage temperature range		T_J, T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	TYP	MAX	UNIT
Forward voltage (Note1)	I_F=5.0A	T_J=25°C T_J=125°C	V_F	-- 0.46	0.595 --	V
Reverse Leakage current	V_R=45V	T_J=25°C T_J=125°C	I_R	-- 3.53	25 5	uA mA
Typical junction capacitance (Note2)			C_J	260		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note3)	$RthJ_C$ $RthJ_a$	16 35	°C/W

Note :

(1) 300us pulse width, 2% duty cycle.
(2) Measured at 1.0MHz and applied voltage of 4.0VDC.
(3) Thermal resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft^2_20 mm x 20 mm copper pad.

REV. 1, Jul-2017, KSHP31

RATING AND CHARACTERISTIC CURVES
FB545D

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

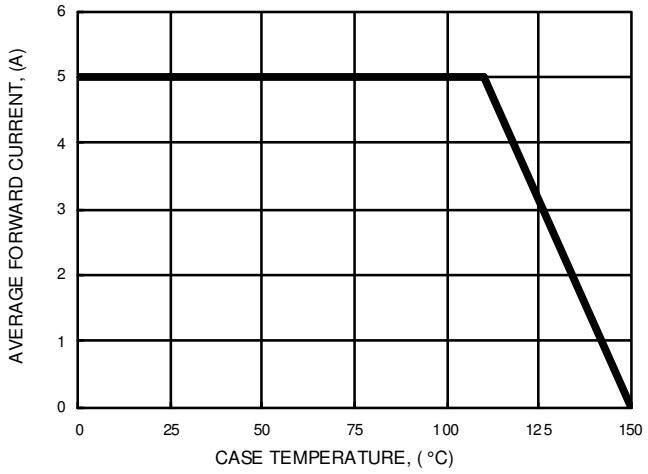


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

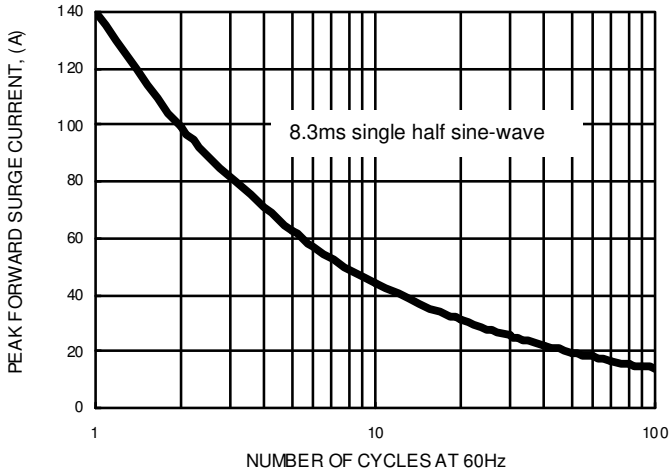


FIG.3- TYPICAL FORWORD CHARACTERISTICS

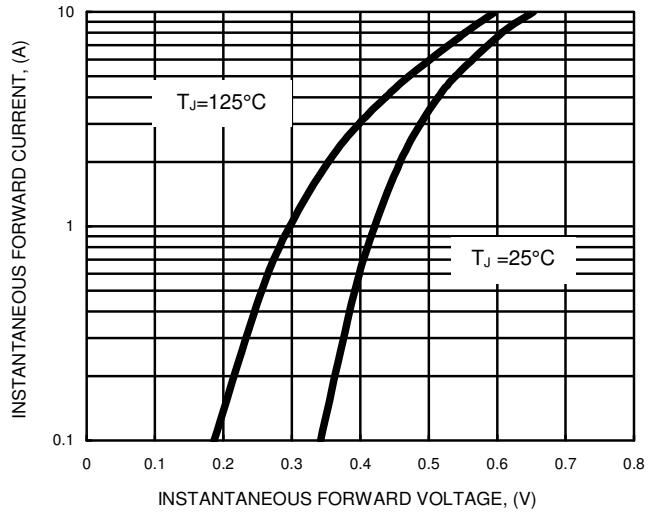


FIG.4- TYPICAL JUNCTION CAPACITANCE

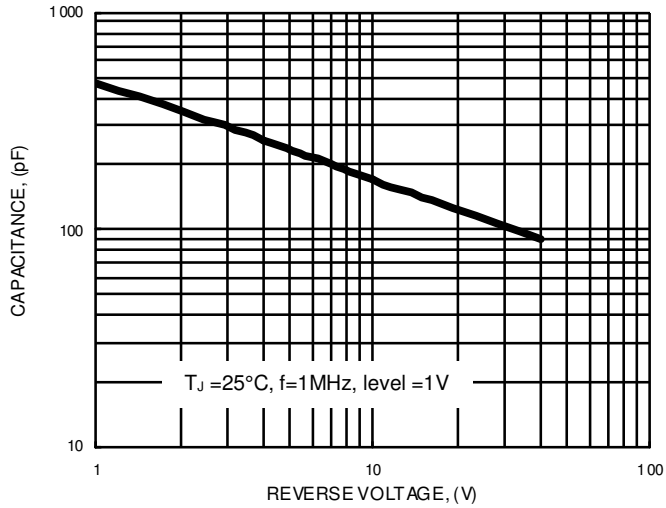
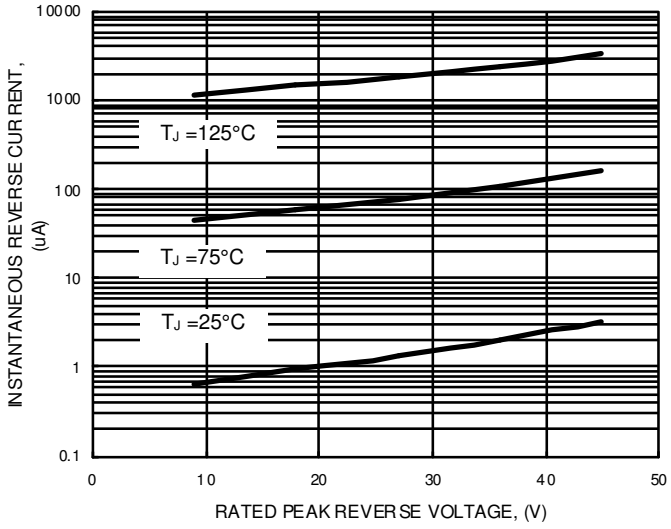


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant 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.