LITE-ON SEMICONDUCTOR

GBJ15V10

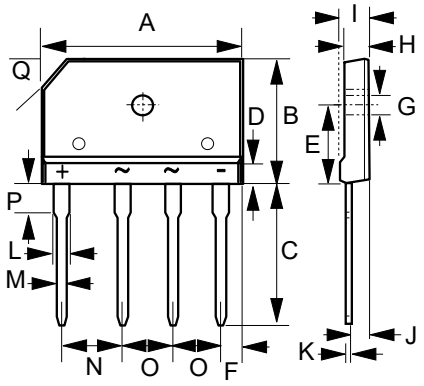
GLASS PASSIVATED BRIDGE RECTIFIER

REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 15 Amperes

FEATURES
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- UL recognition file # E95060

MECHANICAL DATA
- Case: GBJ
- Case Material: Plastic material, UL flammability classification 94V-0
- Component in accordance to RoHs 2002/95/EC
- Polarity indicator: Symbol molded on body
- Weight: 6.82 grams (Approximate)
- Marking code : GBJ15V10

GBJ



GBJ		
DIM	MIN	MAX
A	29.70	30.30
B	19.70	20.30
C	17.00	18.00
D	4.70	4.90
E	10.80	11.20
F	2.30	2.70
G	3.10Ø	3.40Ø
H	3.40	3.80
I	4.40	4.80
J	2.50	2.90
K	0.60	0.80
L	2.00	2.40
M	0.90	1.10
N	9.80	10.20
O	7.30	7.70
P	3.80	4.20
Q	(3.0) x 45°	
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}	1000	V
Maximum DC blocking voltage		V_{DC}	1000	V
Average rectified output current per device	With heatsink Without heatsink	$I_{(AV)}$	15 4.1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	@ T_A=25°C @ T_A=125°C (Note1)	I_{FSM}	400 320	A
Peak forward surge current 1ms single half sine-wave superimposed on rated load	@ T_A=25°C @ T_A=125°C (Note1)	I_{FSM}	800 640	A
I^2t rating for fusing (t = 8.3ms)		I^2t	664	A^2S
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 = 7.5A	T_A = 25°C T_A = 125°C (Note1)	V_F	0.88 0.75	0.92 --	V
Leakage current	V_R = 1000V	T_A = 25°C T_A = 125°C (Note1)	I_R	0.08 16	5 500	uA
Typical junction capacitance (Note2)			C_J	137		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note3)	$RthJ_C$ $RthJ_L$ $RthJ_A$	2 2 5	°C/W

Note :
(1) Perform static test after the temperature of oven is steady 20 minutes.
(2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
(3) Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 195 mm*110 mm*10 mm steel plate

REV.1, Apr-2019, KBDG43

RATING AND CHARACTERISTIC CURVES
GBJ15V10

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FIG.1- FORWARD CURRENT DERATING CURVE

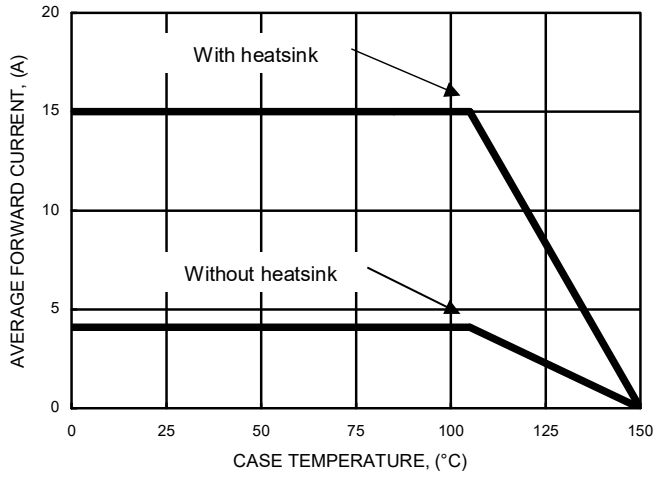


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

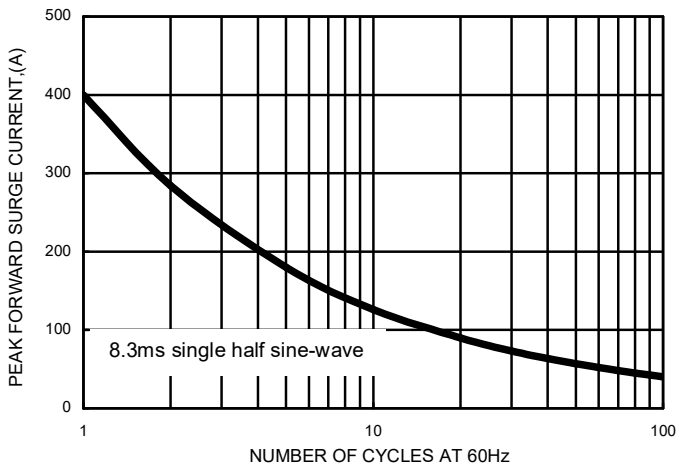


FIG.3- TYPICAL FORWORD CHARACTERISTICS

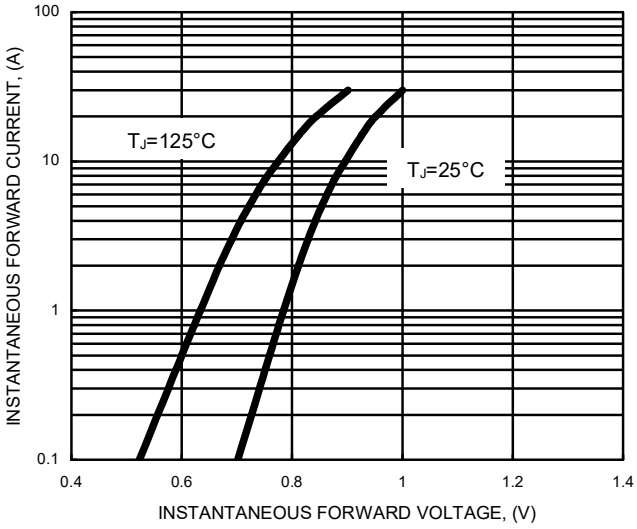


FIG.4- TYPICAL JUNCTION CAPACITANCE

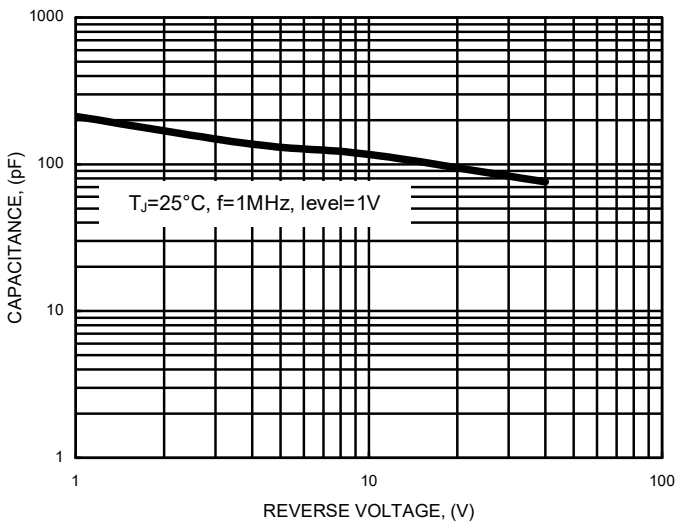
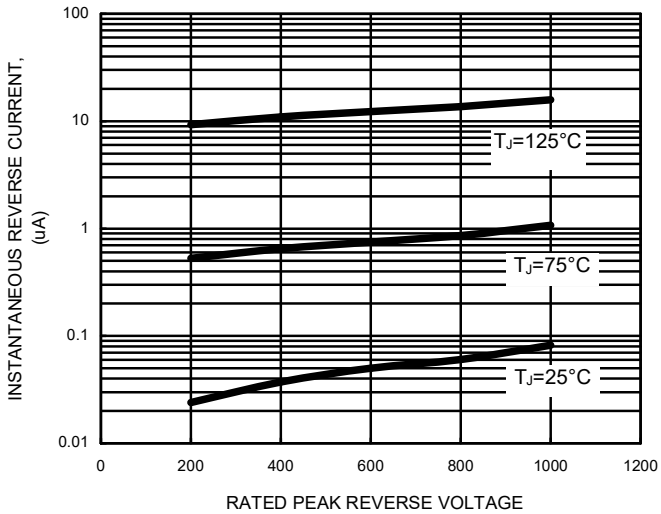


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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