

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 800 Volts
FORWARD CURRENT – 25 Amperes

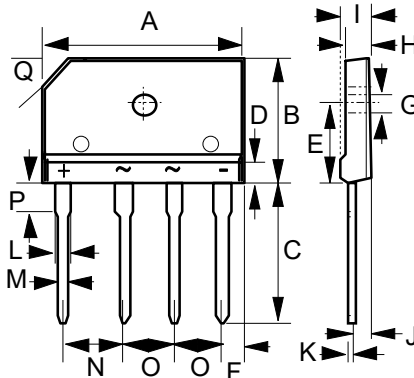
FEATURES

- 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)

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	GBJ25V08	UNIT
Device marking code	Note	GBJ25V08	--
Maximum repetitive peak reverse voltage	V_{RRM}	800	V
Maximum DC blocking voltage	V_{DC}	800	V
Average rectified output current per device	I_{AV}	25	A
With heatsink		4.8	
Without heatsink	I_{FSM}	600	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		480	
Peak forward surge current 1ms single half sine-wave superimposed on rated load	I_{FSM}	1200	A
@ $T_A = 125^\circ\text{C}$ (Note1)		960	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)	$I^2 t$	1494	A^2S
Operating and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Forward voltage (Note1)	$I_F = 12.5\text{A}$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ (Note1)	V_F	0.91 --	0.94 --	V
Leakage current	V_R at rated $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ (Note1)	I_R	5 500		μA
Typical junction capacitance (Note 2)		C_J	168		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 3)	R_{thJC} R_{thJL} R_{thJA}	2 5 5	$^\circ\text{C/W}$

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.2, Apr.-2019, KBDG42

RATING AND CHARACTERISTIC CURVES

GBJ25V08

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

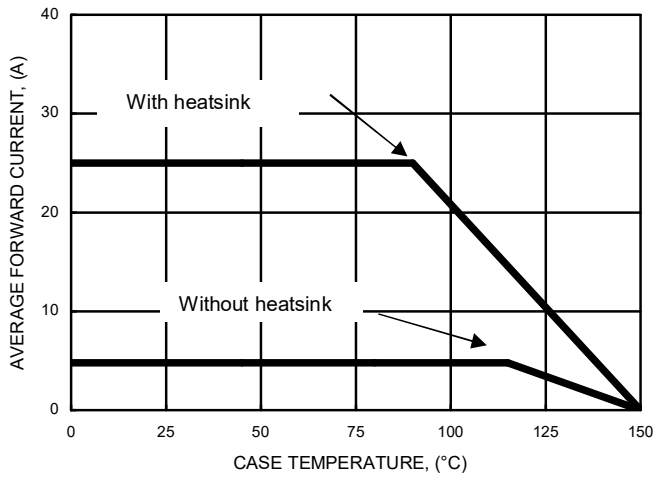


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

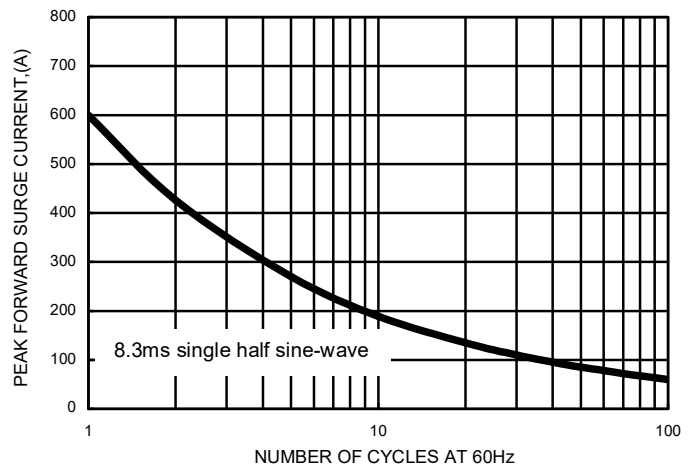


FIG.3- TYPICAL FORWARD CHARACTERISTICS

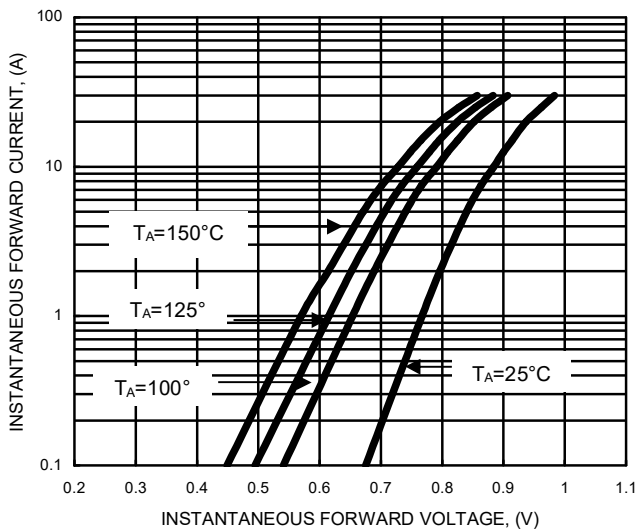


FIG.4- TYPICAL JUNCTION CAPACITANCE

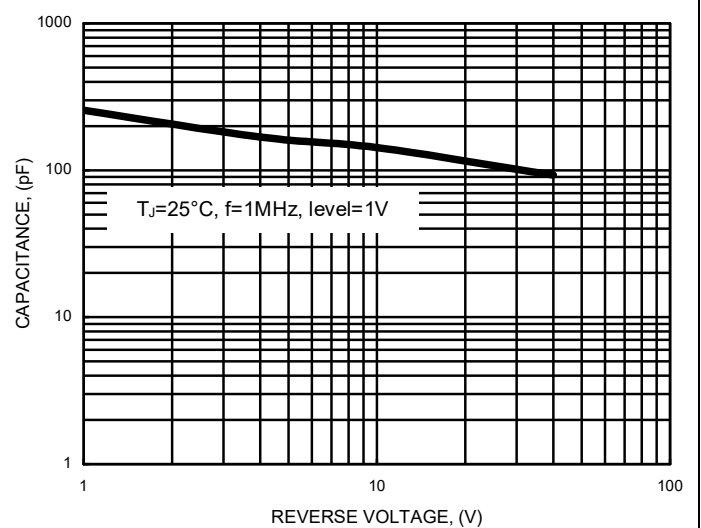
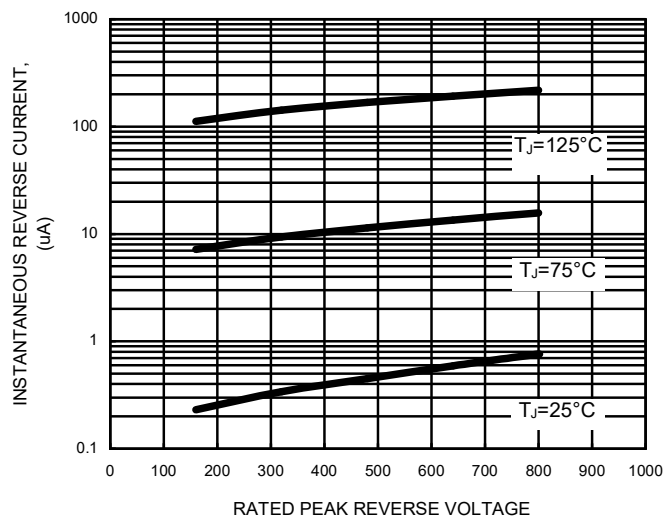


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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