

GLASS PASSIVATED BRIDGE RECTIFIER

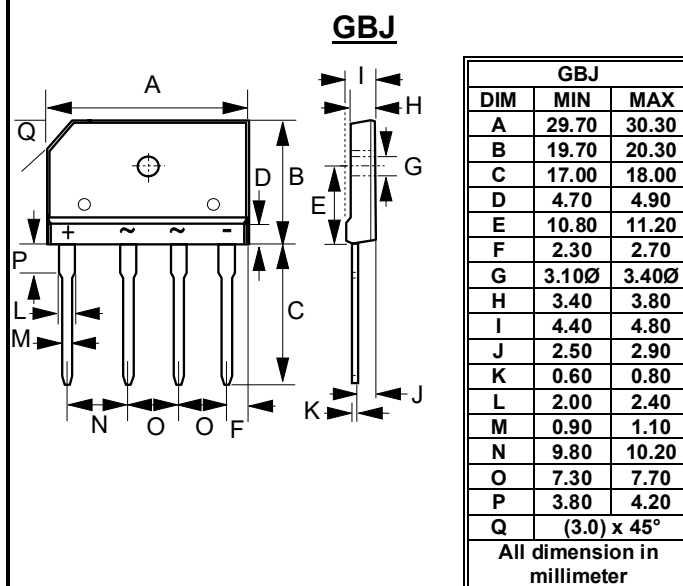
**REVERSE VOLTAGE –1000 Volts
FORWARD CURRENT – 50 Amperes**

FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- UL recognition file # E95060

MECHANICAL DATA

- Case Material: Green molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.)
- Polarity indicator: Symbol molded on body
- Weight: 7.2 grams (Approximate)
- Marking code : GBJ5010



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 (Note 2) without heatsink @ $T_C = 85^\circ\text{C}$	$I_{(AV)}$	50 4.9	A
Peak forward surge current 8.3ms single half sine-wave @ $T_J = 25^\circ\text{C}$ superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	500 400	A
Peak forward surge current 1ms single half sine-wave @ $T_J = 25^\circ\text{C}$ superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	1000 800	A
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)	$I^2 t$	1037	A ² S
Mounting Torque (recommended torque: 0.5 N.m)	TOR	0.8	N.m
Operating and storage temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Forward voltage (Note 1)	$I_F = 25\text{A}$ $T_J = 25^\circ\text{C}$	V_F	1.1	V
Leakage current	$V_R = 1000\text{V}$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_R	10 500	µA
Typical junction capacitance (Note 1)		C_J	205	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	Typical	UNIT
Typical thermal resistance (Note 2)	R_{thJA} R_{thJC} R_{thJL}	1.6 0.4 1.2	°C/W

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (2) Thermal Resistance Junction to Lead, device mounted on heatsink.

REV.3, Apr.-2019, KBDG51

RATING AND CHARACTERISTIC CURVES

GBJ5010

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

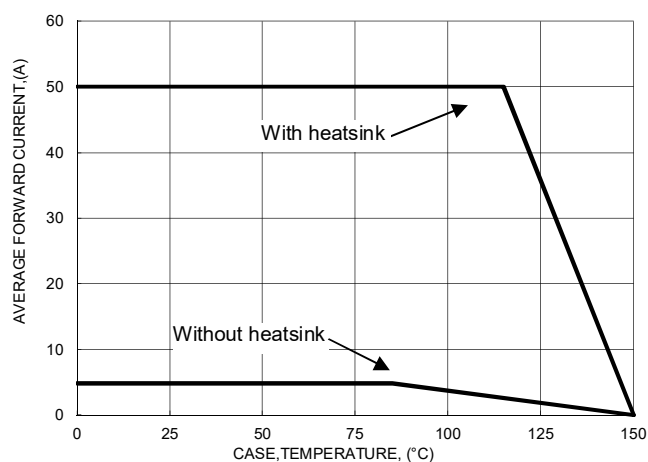


FIG.2- FORWARD CURRENT DERATING CURVE

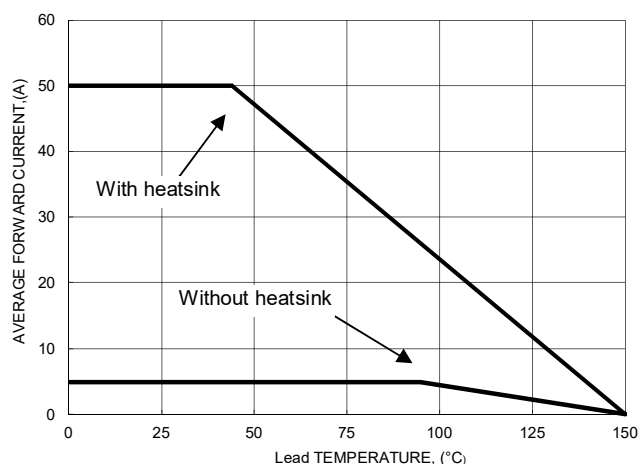


FIG.3- MAXIMUM NON-REPETITIVE SURGE CURRENT

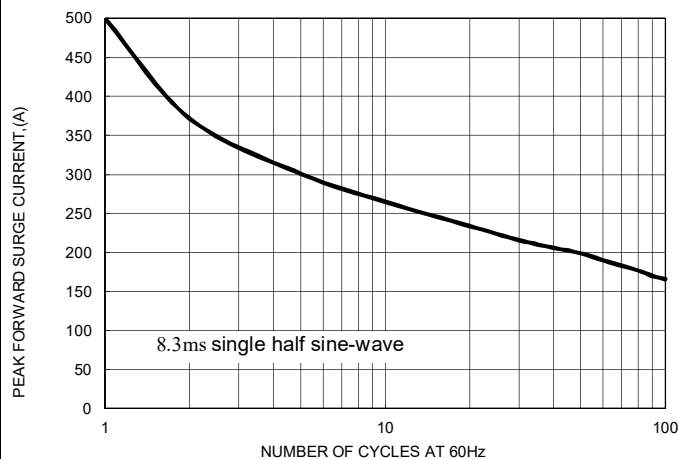


FIG.4- TYPICAL JUNCTION CAPACITANCE

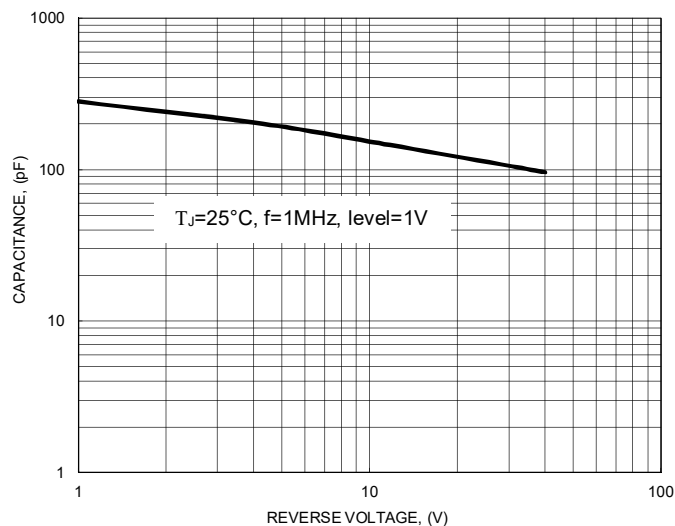


FIG.5- TYPICAL FORWARD CHARACTERISTICS

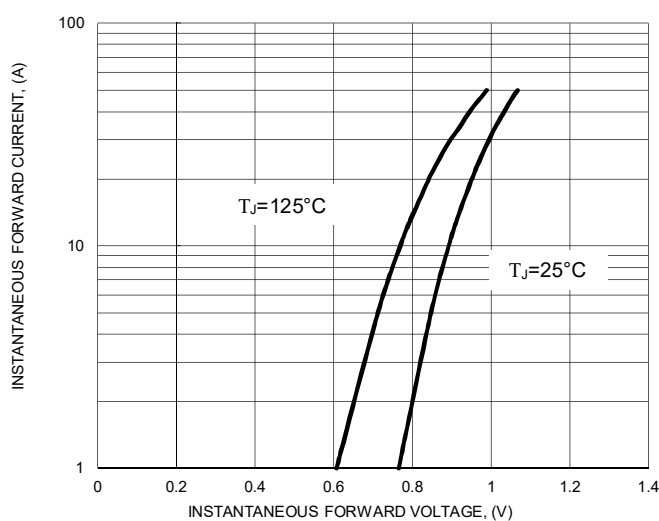
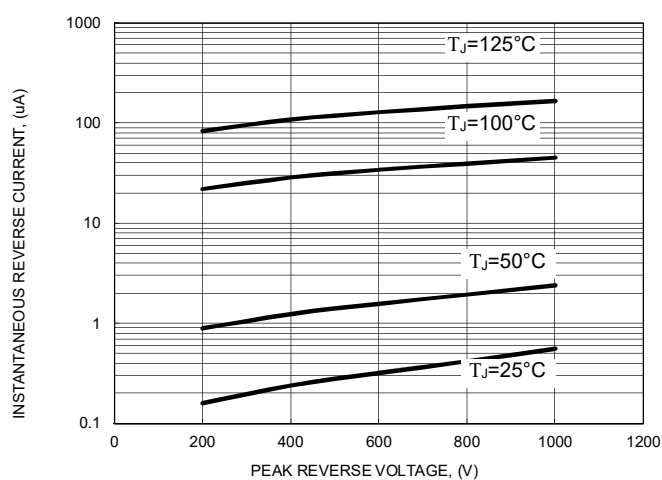


FIG.6- TYPICAL REVERSE CHARACTERISTICS



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