

GBJ2506~GBJ2510(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

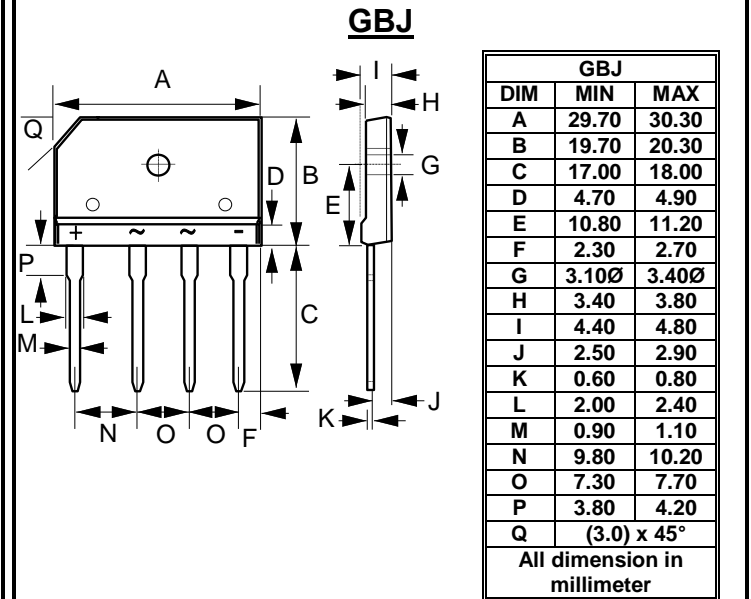
REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 25 Amperes

FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- UL recognition file # E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: GBJ
- Package 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)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	GBJ2506	GBJ2508	GBJ2510	UNIT
Device marking code		Note	GBJ2506	GBJ2508	GBJ2510	--
Maximum repetitive peak reverse voltage		V _{RRM}	600	800	1000	V
Maximum DC blocking voltage		V _{DC}	600	800	1000	V
Average rectified output current per device	With heatsink (Note4)	I _(AV)	25			A
	Without heatsink		4.2			
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	@ T _A =25°C	I _{FSM}	350			A
Peak forward surge current 1ms single half sine-wave superimposed on rated load	@ T _A =25°C	I _{FSM}	700			A
Mounting Torque (Recommended torque: 0.5 N.m)		TOR	0.8			N.m
I ² t rating for fusing (t = 8.3ms)		I ² t	510			A ² S
Operating and storage temperature range		T _J ,T _{STG}	-55 to +150			°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Forward voltage	$I_F = 12.5\text{A}$ $T_A = 25^\circ\text{C}$	V_F	1.05	V
Leakage current	V_R at rated $T_A = 25^\circ\text{C}$	I_R	10	uA
	$T_A = 125^\circ\text{C}$		500	
Typical junction capacitance (Note 4)		C_J	85	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	R_{thJC}	1	°C/W
	R_{thJL}	1	
	R_{thJA}	3	

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on 250mm x 250mm x 20mm Aluminum Plate Heatsink.

**RATING AND CHARACTERISTIC CURVES
GBJ2506~GBJ2510**

FIG.1- FORWARD CURRENT DERATING CURVE

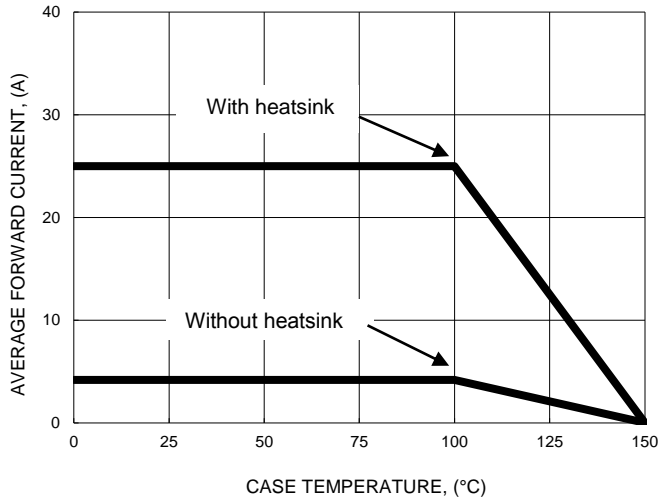


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

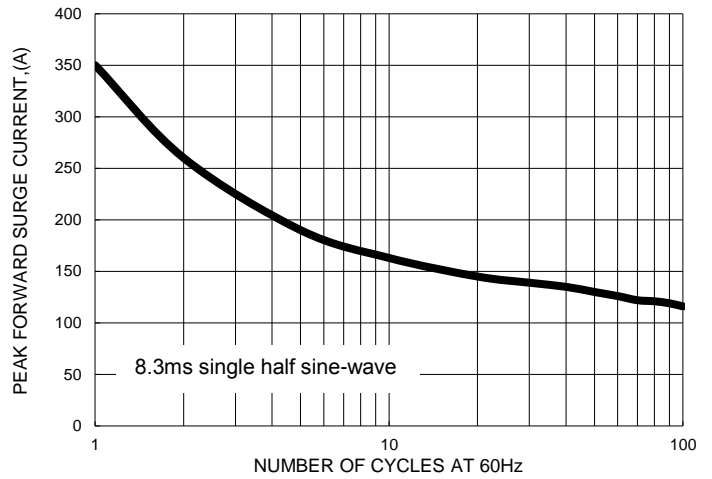


FIG.3- TYPICAL FOWRD CHARACTERISTICS

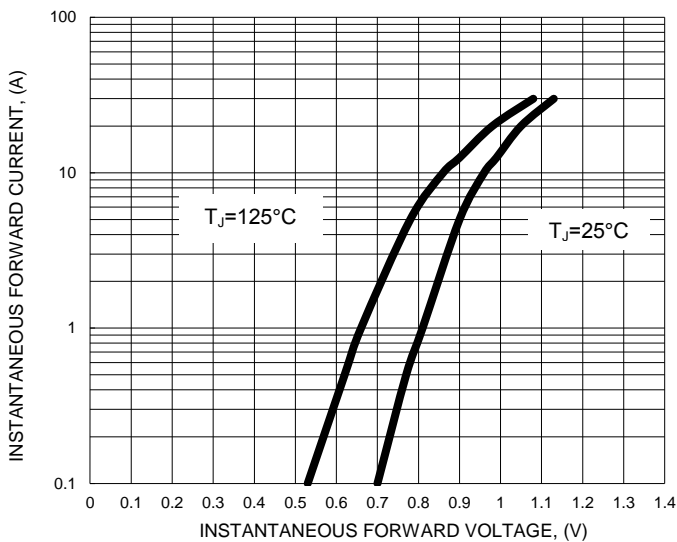


FIG.4- TYPICAL JUNCTION CAPACITANCE

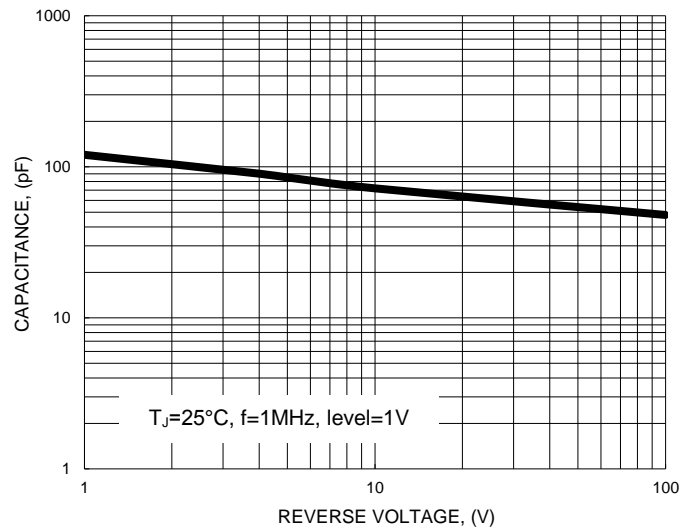


FIG.5- TYPICAL REVERSE CHARACTERISTICS

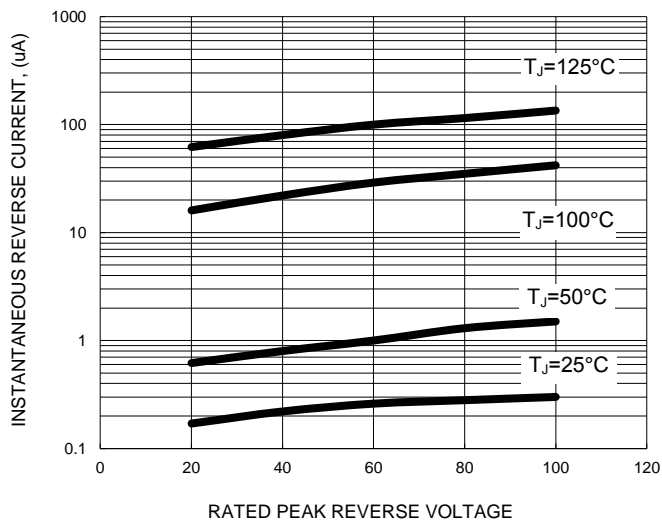
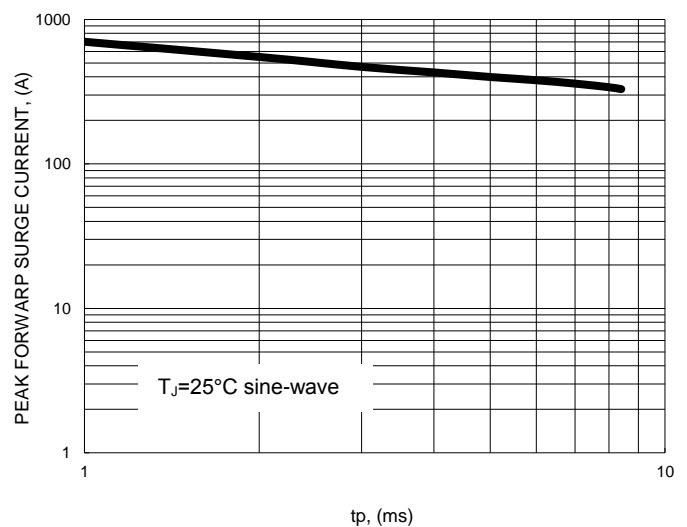


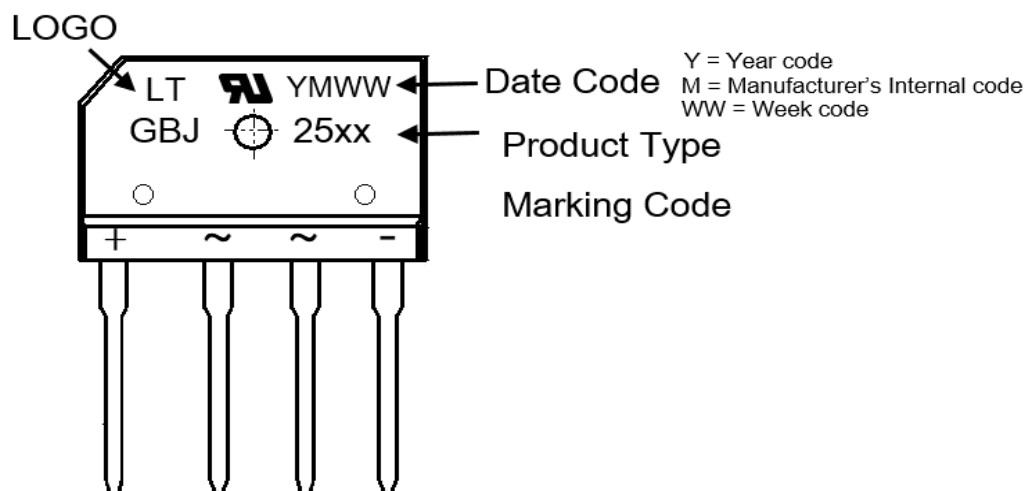
FIG.6- NON-REPETITIVE SURGE CURRENT



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
GBJ2506_HF	GBJ	15	Tube
GBJ2508_HF	GBJ	15	Tube
GBJ2510_HF	GBJ	15	Tube

Marking Information:



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