

GBJ1506 - GBJ1510(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 15 Amperes

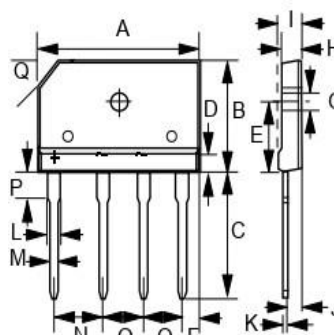
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Reliable construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0
- 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: Green molding compound, UL flammability classification 94V-0, (No Br, Sb, Cl)
- Polarity: Symbols molded on body
- Terminals: Lead Free Plating (Matte Tin Finish.), Solderable Per MIL-STD-202, Method 208 (e3)
- Weight: 6.6 grams (Approximate)
- Mounting position: Any

GBJ



GBJ		
Dim.	Min.	Max.
A	29.70	30.30
B	19.70	20.30
C	17.0	18.0
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) × 45°	
All Dimensions in millimeter		

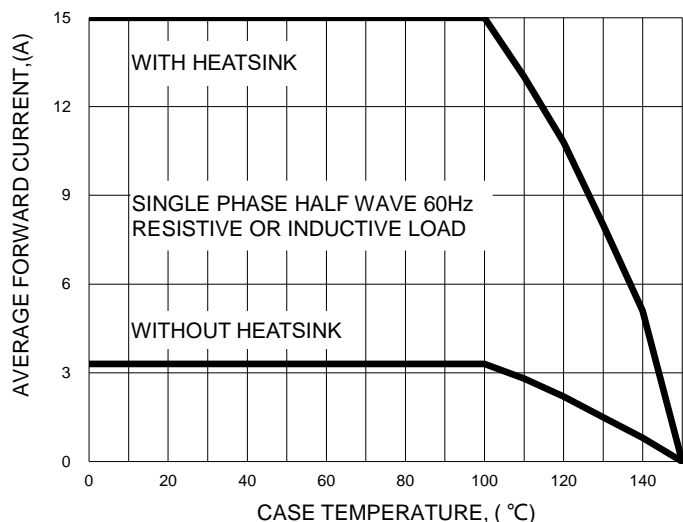
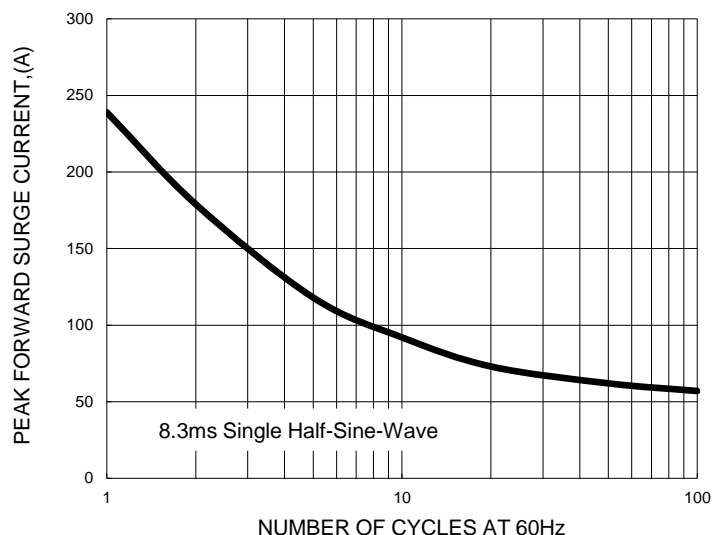
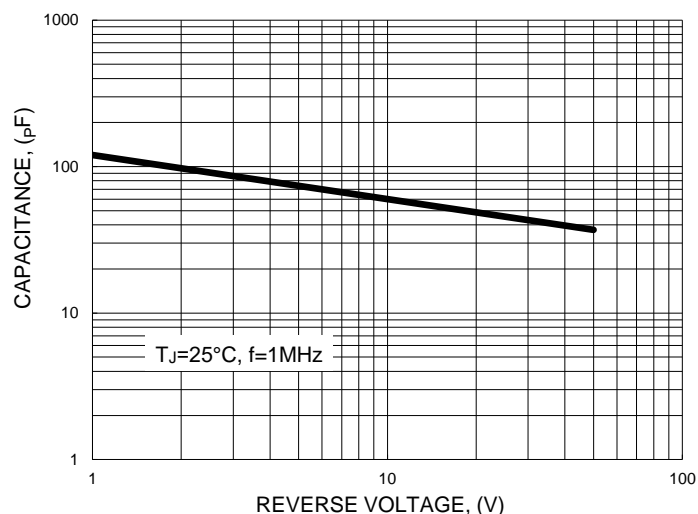
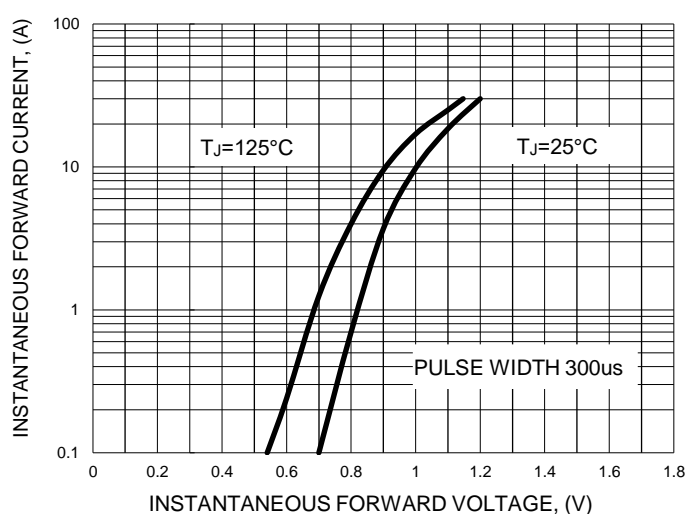
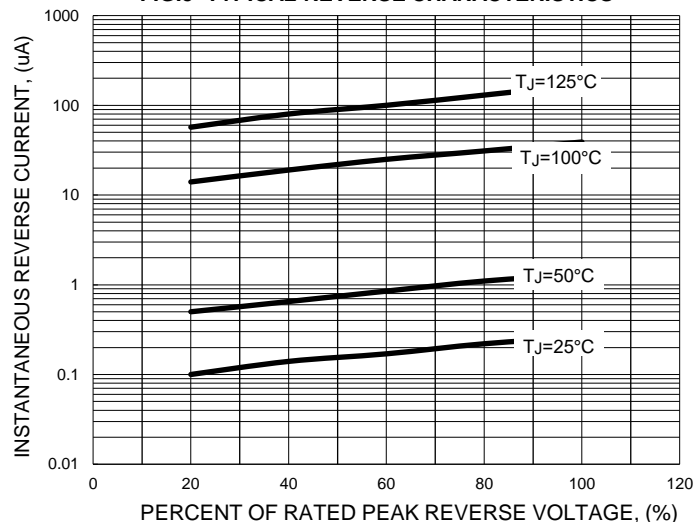
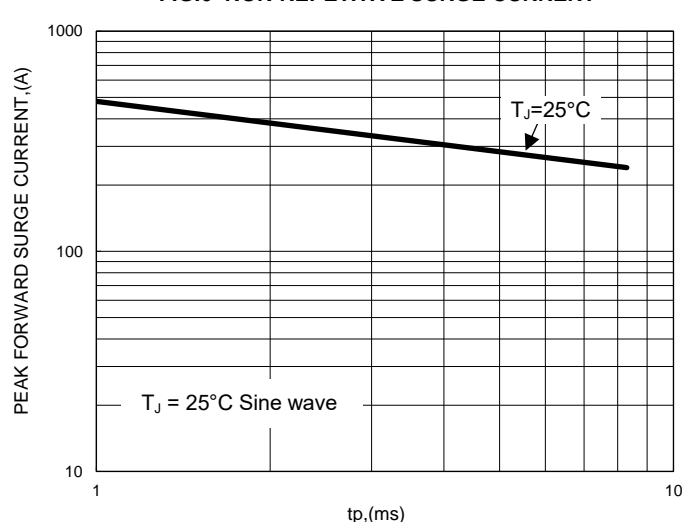
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	GBJ1506	GBJ1508	GBJ1510	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum RMS voltage	V_{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum average forward Rectified current (with heatsink) @ $T_C = 100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	15.0 3.2			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ $T_A = 25^\circ\text{C}$	I_{FSM}	240			A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load @ $T_A = 25^\circ\text{C}$	I_{FSM}	480			A
Maximum forward voltage at 7.5A DC	V_F	1.05			V
Maximum DC reverse current at rated DC Blocking voltage @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$	I_R	10 500			uA
I^2t Rating for fusing ($t = 8.3\text{ms}$)	I^2t	240			A ² S
Typical junction capacitance per element (Note 4)	C_T	80			pF
Typical thermal resistance (Note 5)	R_{thJC}	0.8			°C/W
Operating temperature range	T_J	-55 to +150			°C
Storage temperature range	T_{STG}	-55 to +150			°C

Notes:

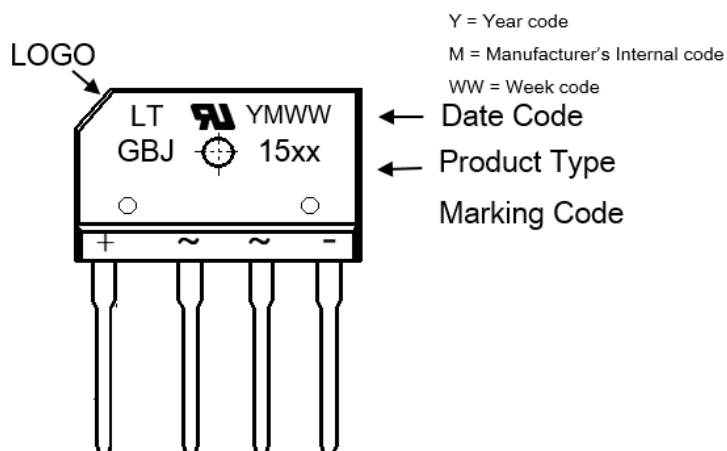
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- 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. Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heat sink.

RATING AND CHARACTERISTIC CURVES
GBJ1506 - GBJ1510
FIG.1- FORWARD CURRENT DERATING CURVE

FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

FIG.3- TYPICAL JUNCTION CAPACITANCE

FIG.4- TYPICAL FORWARD CHARACTERISTICS

FIG.5- TYPICAL REVERSE CHARACTERISTICS

FIG.6- NON-REPETITIVE SURGE CURRENT


Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
GBJ1506_HF	GBJ	15	Tube
GBJ1508_HF	GBJ	15	Tube
GBJ1510_HF	GBJ	15	Tube

Marking Information:



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