

GBJ2006 – GBJ2010(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 20 Amperes**

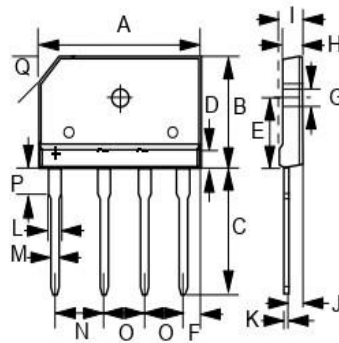
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0
- UL Recognition File # E95060
- Available in “Green” Package: GBJ
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Polarity : Symbols molded on body
- Weight : 0.23 ounces, 6.6 grams
- 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	3.10 ϕ	3.40 ϕ
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) \times 45 $^\circ$	
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	GBJ2006	GBJ2008	GBJ2010	UNIT
Maximum repetitive 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 @TC =100°C (with heatsink Note4) (without heatsink)	$I_{(AV)}$		20.0 3.6		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}		240		A
Maximum forward voltage at 10.0A DC	V_F		1.05		V
Maximum DC reverse current at rated DC Blocking voltage @TJ =25°C @TJ =125°C	I_R		10 500		μ A
I^2t rating for fusing (t = 8.3ms)	I^2t		240		A 2 S
Typical junction capacitance per element (Note 5)	C_J		80		pF
Typical thermal resistance (Note4)	R_{thJC}		0.8		$^\circ$ C/W
Operating temperature range	T_J		-55 to +150		$^\circ$ C
Storage temperature range	T_{STG}		-55 to +150		$^\circ$ C

Note:

REV-8, Nov-2021, KBDG05

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. Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heat sink.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATING AND CHARACTERISTIC CURVES
GBJ2006 – GBJ2010

FIG.1- FORWARD CURRENT DERATING CURVE

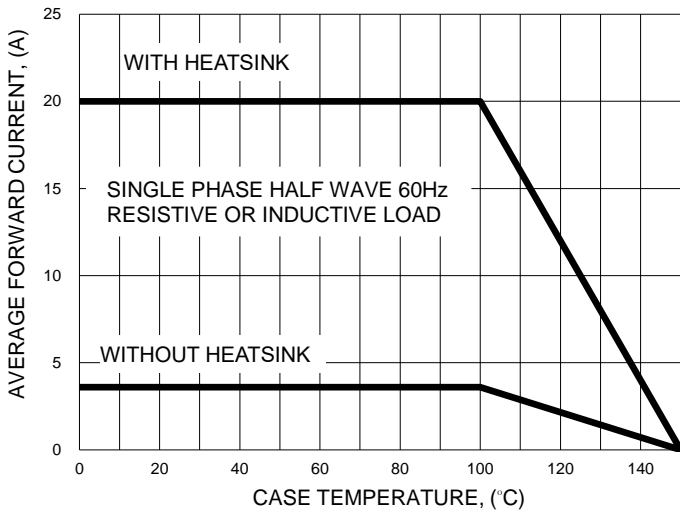


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

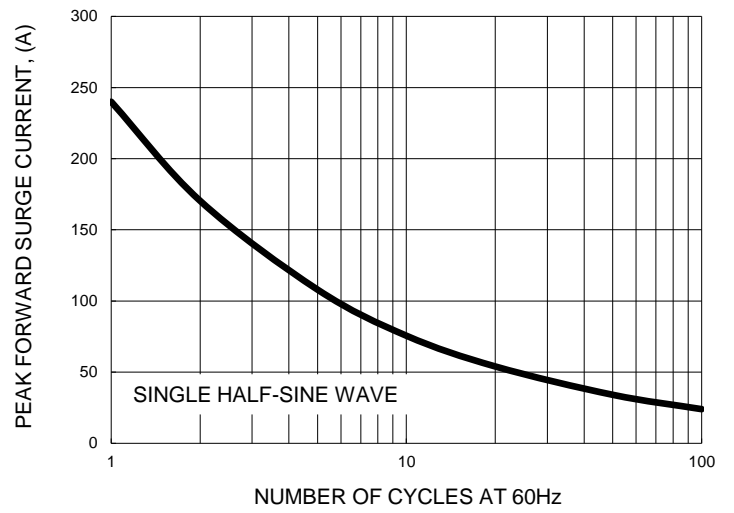


FIG.3- TYPICAL JUNCTION CAPACITANCE

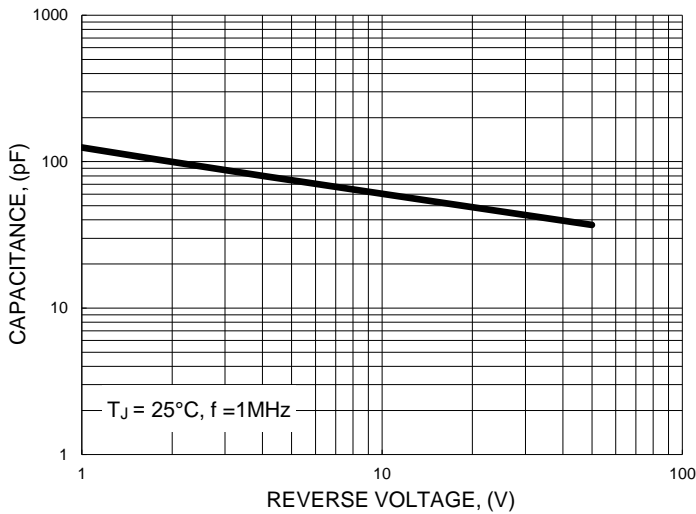


FIG.4- TYPICAL FORWARD CHARACTERISTICS

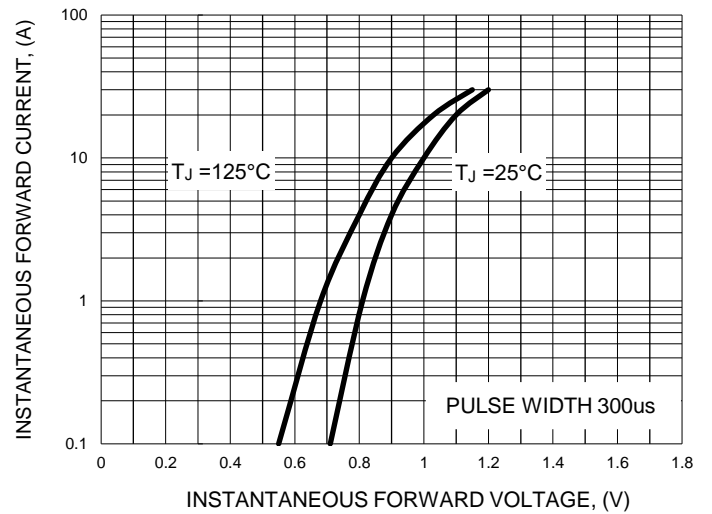
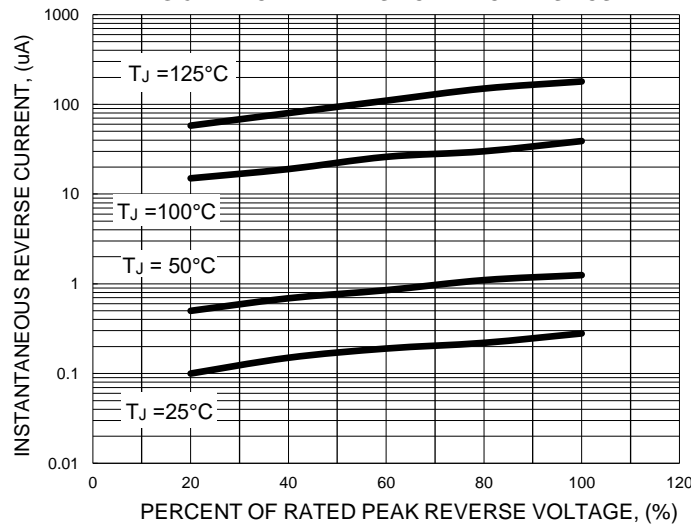


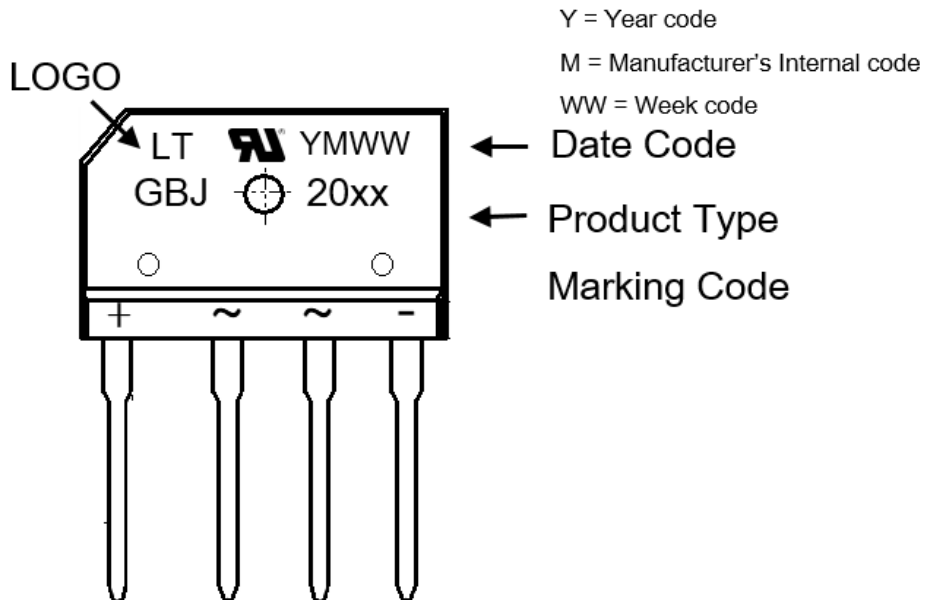
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBJ2006_HF	GBJ	15pcs	Tube
GBJ2008_HF	GBJ	15pcs	Tube
GBJ2010_HF	GBJ	15pcs	Tube

Marking Information :



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