



GBU1506~GBU1510(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 400 to 1000 Volts
FORWARD CURRENT – 15 Amperes

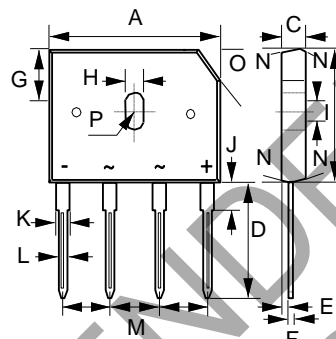
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- UL recognition file # E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: GBU
- Package Material: "Green" Molding Compound, UL Flammability Classification 94V-0 (No Br. Sb. Cl)
- Terminals: Lead Free Plating (Tin Finish) @3
- Polarity: As marked on Body
- Weight: 0.15 ounces, 4.0 grams (Approximate)
- Mounting position : Any

GBU



GBU		
DIM	MIN	MAX
A	21.80	22.30
B	18.30	18.80
C	3.30	3.56
D	17.50	18.00
E	0.76	1.00
F	0.46	0.56
G	7.40	7.90
H	3.50	4.10
I	1.65	2.16
J	2.25	2.75
K	1.95	2.35
L	1.02	1.27
M	4.83	5.33
N	7.0° TYPICAL	
O	(3.2) x 45°	
P	1.90 PADIUS	
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	GBU1506	GBU1508	GBU1510	UNIT
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	$I_{(AV)}$	15 3.2			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200			A
$I^2 t$ rating for fusing (t = 8.3ms)	$I^2 t$	166			A ² S
Mounting Torque (Recommended torque: 0.5 N.m)	TOR	0.8			N.m
Operating and storage temperature range	T_J, T_{STG}	-55 to +150			°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP. MAX	UNIT
Forward voltage (Note 4)	$I_F = 7.5A$	$T_A = 25^\circ C$	V_F	1.1	V
Leakage current	V_R at rated	$T_A = 25^\circ C$ $T_A = 125^\circ C$ (Note 4)	I_R	5 500	μA
Typical junction capacitance (Note 5)			C_J	50	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	R_{thJC}	2.0	°C/W

Note:

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 200mm * 200mm * 5mm Al Plate heatsink.

**RATING AND CHARACTERISTIC CURVES
GBU1506~GBU1510(LS)**

FIG.1 - FORWARD CURRENT DERATING CURVE

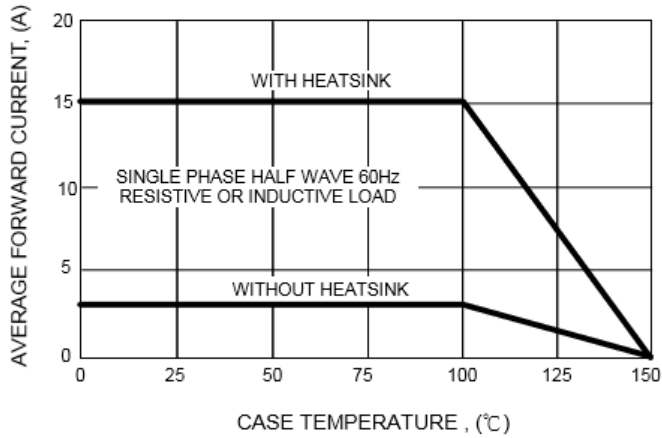


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

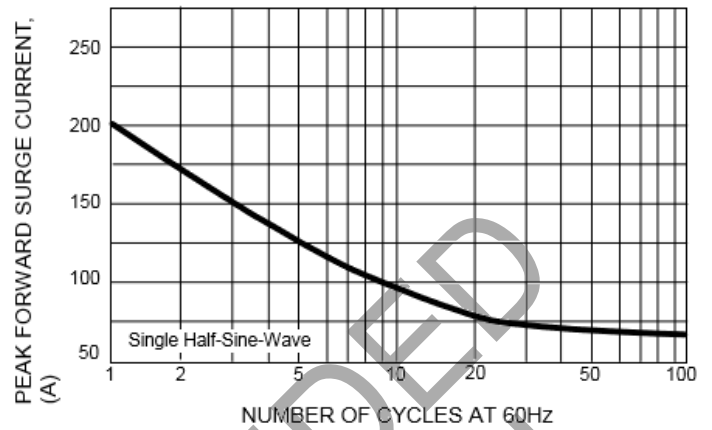


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

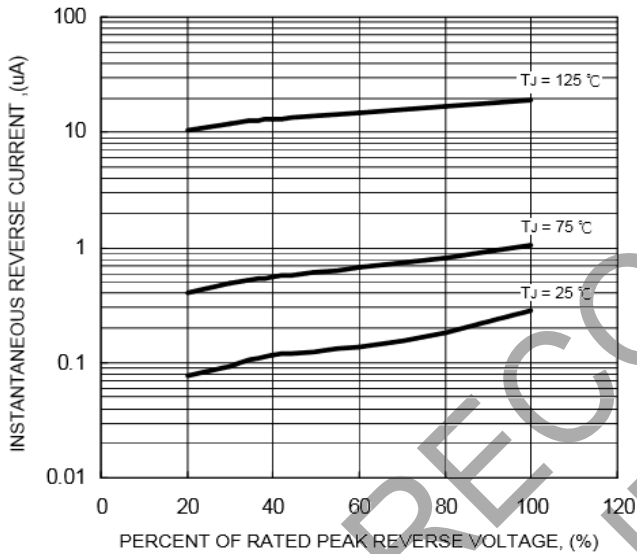


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

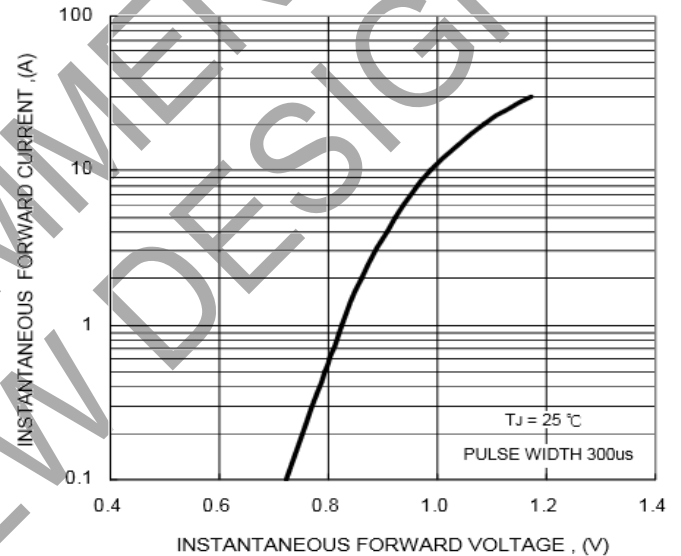
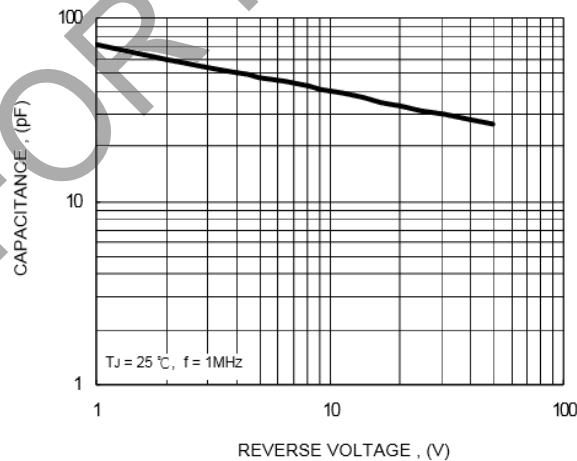


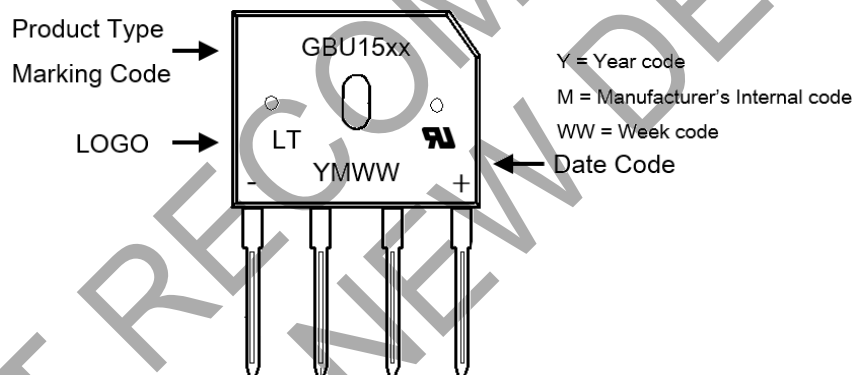
FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBU1506_HF	GBU	20	Tube
GBU1508_HF	GBU	20	Tube
GBU1510_HF	GBU	20	Tube

Marking Information :



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