

GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 15 Amperes**

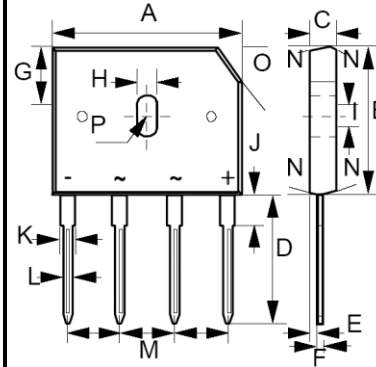
FEATURES

- Low forward Voltage (VF) Drop performance
- High Thermal Radiation
- High Average Current
- High Surge Current Capability
- UL Recognition file # E95060

MECHANICAL DATA

- Package: GBU
- Package Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead free plating (Tin finish), Solderable per MIL-STD-202, Method 208
- Polarity indicator: As marked on the body
- Weight: 0.15 ounces, 4.0 grams
- Component in accordance to RoHs 2002/95/EC

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 RADIUS	

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	GBU15JL	UNIT
Device marking code	Note	GBU15JL	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Rectified Output Current	$I_{F(AV)}$	15 3.7	A
Peak Forward Surge Current	I_{FSM}	200	A
8.3ms single half sine-wave		160	
Peak Forward Surge Current	I_{FSM}	400	A
1.0ms single half sine-wave		320	
I^2t Rating for fusing ($t=8.3ms$)	I^2t	106	A ² S
Storage temperature range	T_{STG}	-55 to +150	°C
Operating junction temperature range	T_J	-40 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNIT
Breakdown voltage	$I_R=10\mu A$ $T_J=25^\circ C$	V_B	600	---	---	V
Forward Voltage (1)	$I_F=7.5A$ $T_J=25^\circ C$	V_F	---	0.86	0.90	V
Leakage Current	$V_R=600V$ $T_J=25^\circ C$	I_R	---	---	10	μA
Typical Junction Capacitance per element (Note 1)		C_j		80		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	Typical	UNIT
Typical Thermal Resistance (without Heatsink)	R_{thJc} R_{thJL} R_{thJA}	6 26 10	°C/W
Typical thermal resistance (Note2)	R_{thJc} R_{thJL} R_{thJA}	1.3 3 5	°C/W

Note :

1. 300us Pulse Width, 2% Duty Cycle.
2. Thermal Resistance Junction to Case, device mounted on 200 x 200 x 2 mm copper plate.
3. Thermal Resistance Junction to Lead, device mounted on 200 x 200 x 2 mm copper plate.

RATING AND CHARACTERISTIC CURVES
GBU15JL

FIG.1- FORWARD CURRENT DERATING CURVE

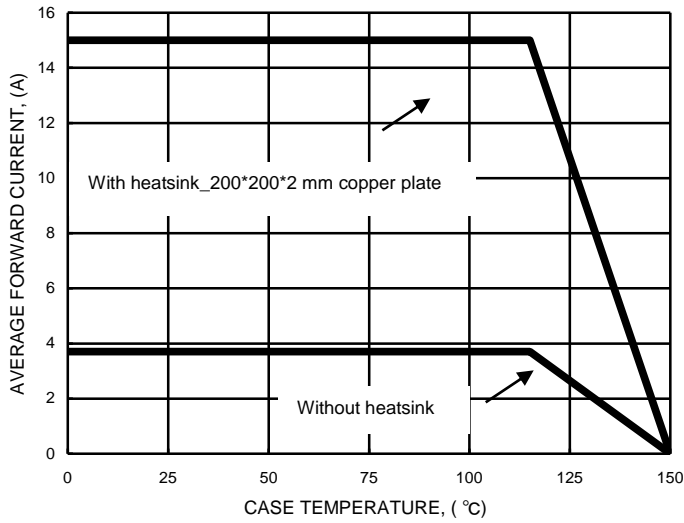


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

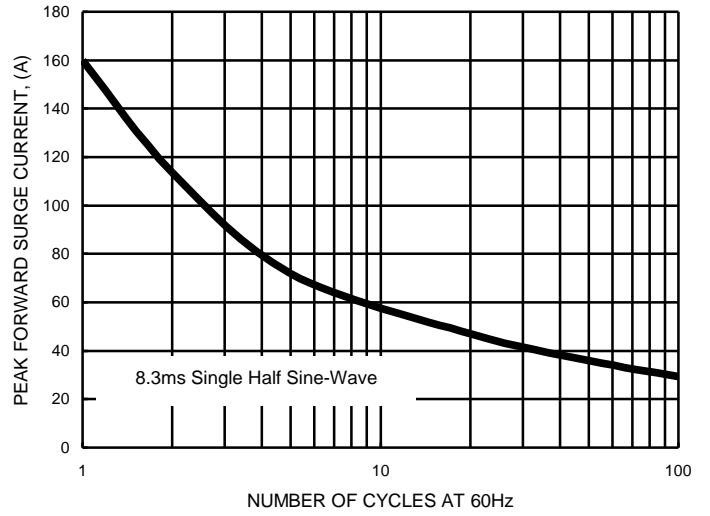


FIG.3- TYPICAL FORWARD CHARACTERISTICS

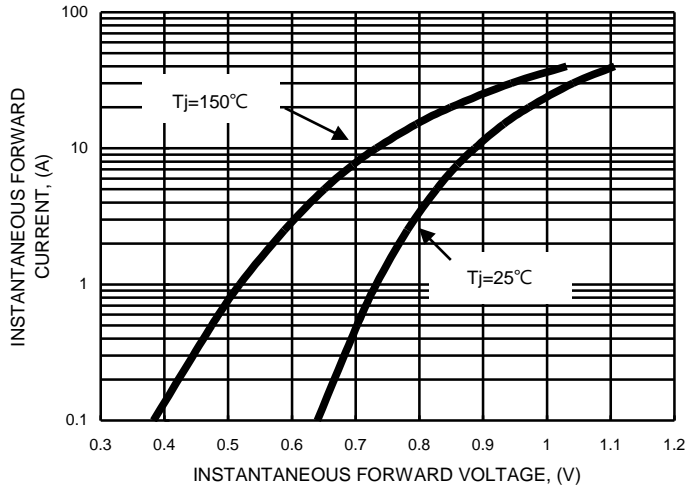


FIG.4- TYPICAL JUNCTION CAPACITANCE

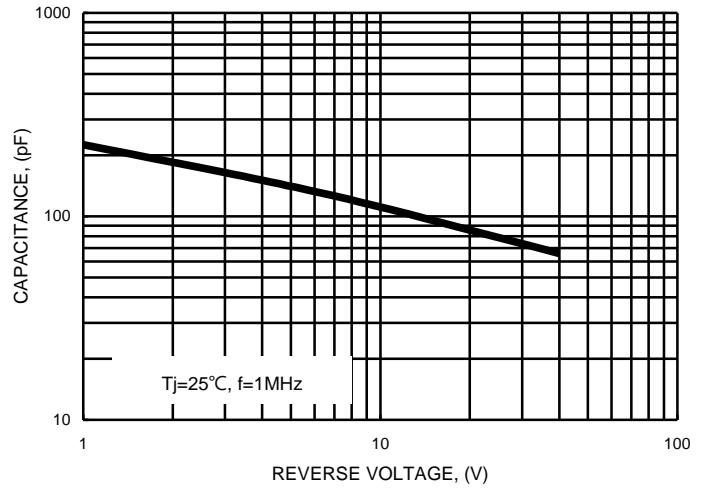


FIG.5- TYPICAL REVERSE CHARACTERISTICS

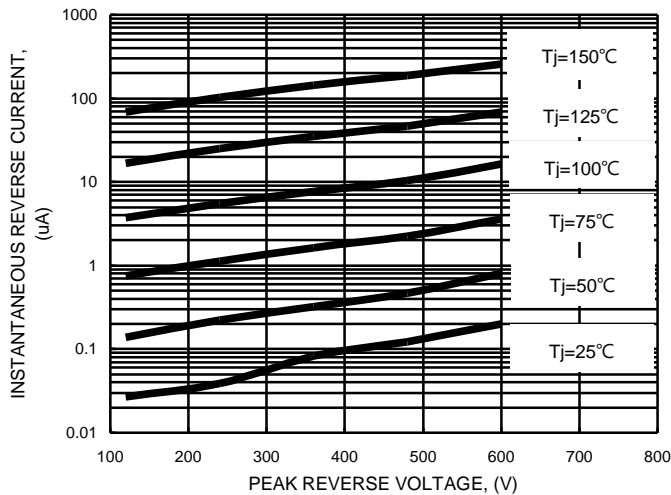


FIG.6- FORWARD POWER DISSIPATION

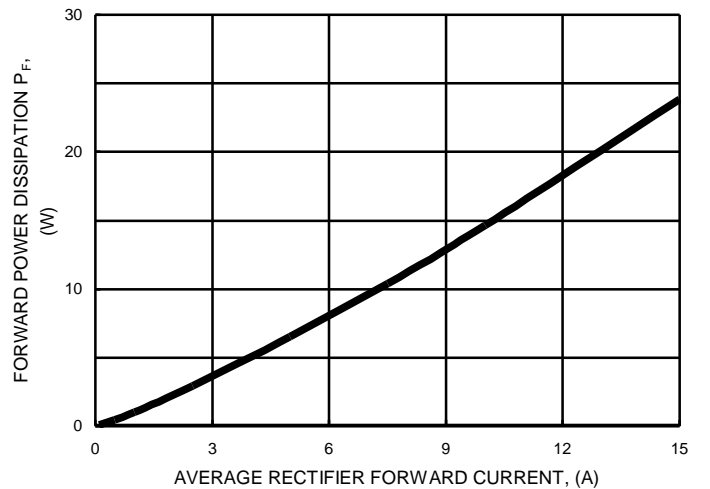
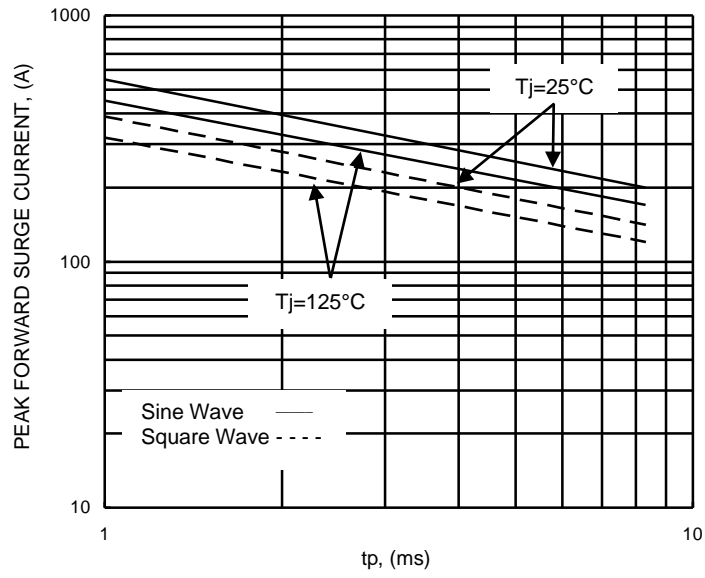


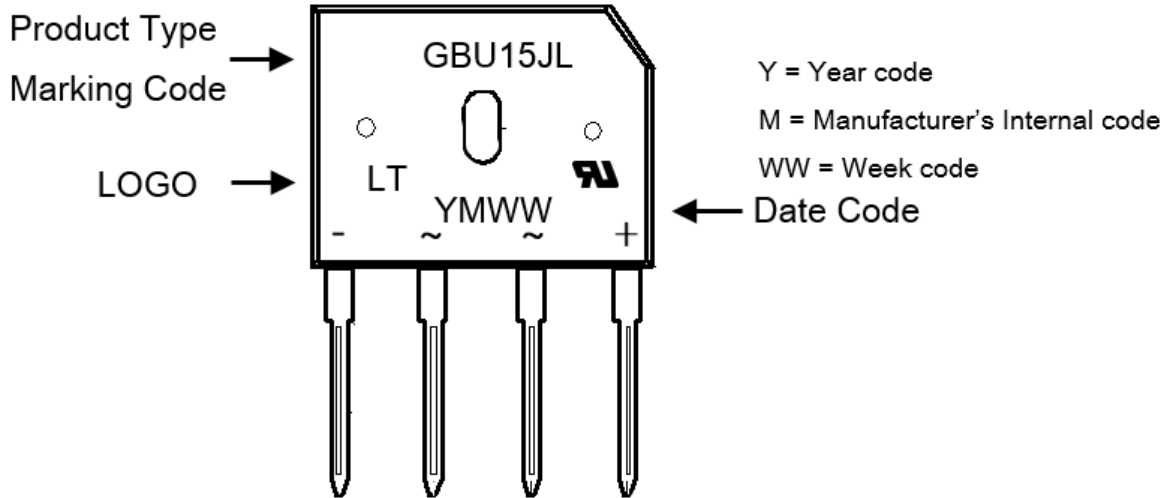
FIG.7_NON-REPETITIVE SURGE CURRENT



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBU15JL_HF	GBU	20	Tube

Marking Information :



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