A Product Line of Diodes Incorporated | LITE-ON SEMICONDUCTOR

GBU2510(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 25 Amperes

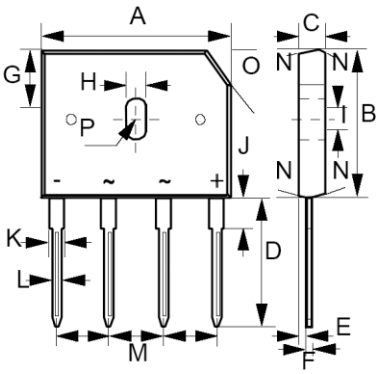
FEATURES

- 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
- Polarity indicator: As marked on the body
- Package Material: Green molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free"
- Terminals: Tin e3
- Weight: 3.9 grams (Approximate)
- Component in accordance to RoHs 2002/95/EC
- 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 RADIUS	
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER		SYMBOL	GBU2510	UNIT
Device marking code		---	GBU2510	---
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	V
Average Rectified Output Current	With heatsink Without heatsink	$I_{F(AV)}$	25 3.6	A
Peak Forward Surge Current 8.3ms single half sine-wave	@ Tj = 25 ℃ @ T_J = 125℃	I_{FSM}	350 280	A
Peak Forward Surge Current 1.0ms single half sine-wave	@ Tj =25 ℃ @ T_J=125℃	I_{FSM}	700 560	A
I^2t Rating for fusing (t = 8.3ms)		I^2t	508	A^2S
Storage temperature range		T_{STG}	-55 to +150	°C
Operating junction temperature range		T_J	-40 to +150	°C
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**Max.**	**UNIT**
Forward Voltage	I_F=12.5A T_J=25°C	V_F	1.05	V
Leakage Current	V_R=1000V T_J=25°C	I_R	10	uA
Typical Junction Capacitance per element (Note 4)		C_T	93	pF
THERMAL CHARACTERISTIC		**SYMBOL**	**Typ.**	**UNIT**
Typical Thermal Resistance (without Heatsink)		R_{thJC} R_{thJL} R_{thJA}	3 10 30	°C/W
Typical thermal resistance (Note 5)		R_{thJC} R_{thJL} R_{thJA}	1 2 5	°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. Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on170mmx170mmx45mm AL Fin heatsink.

RATING AND CHARACTERISTIC CURVES
GBU2510(LS)

FIG.1- FORWARD CURRENT DERATING CURVE

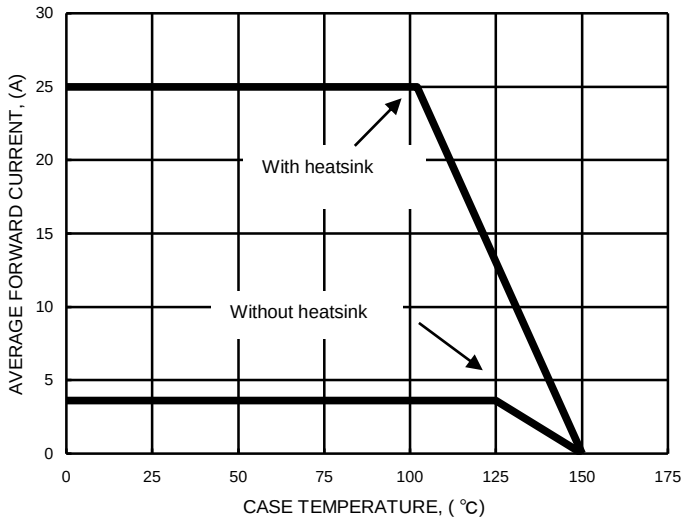


FIG.2- FORWARD CURRENT DERATING CURVE

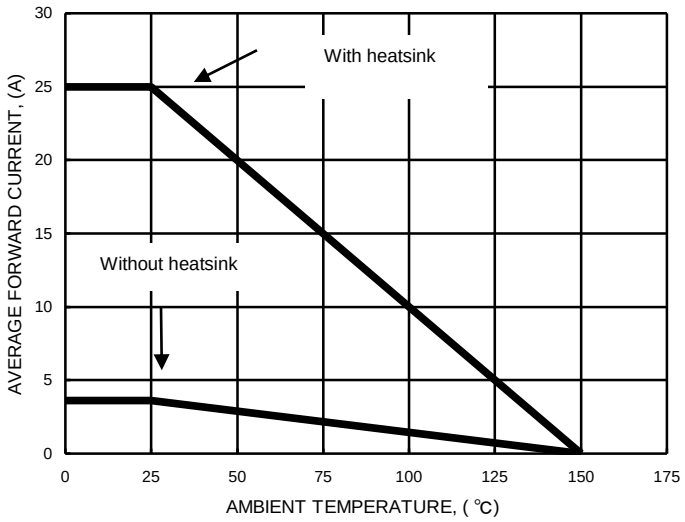


FIG.3- MAXIMUM NON-REPETITIVE SURGE CURRENT

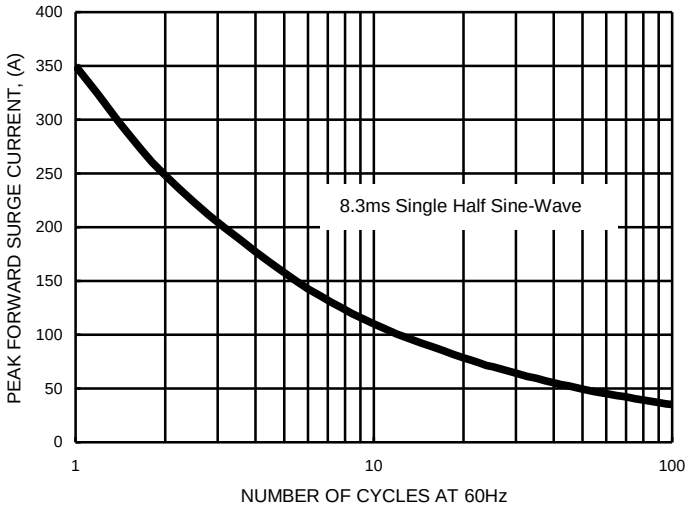


FIG.4- TYPICAL FORWARD CHARACTERISTICS

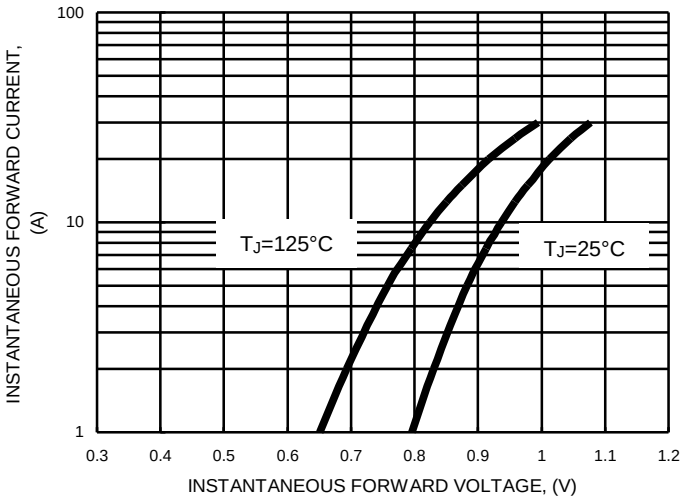


FIG.5- TYPICAL JUNCTION CAPACITANCE

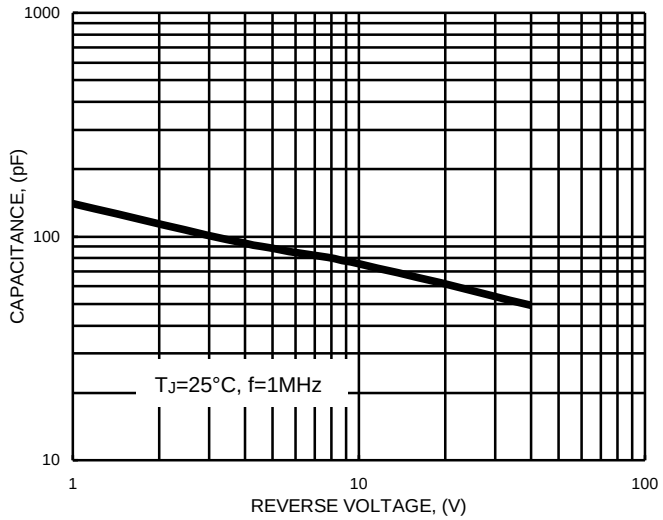
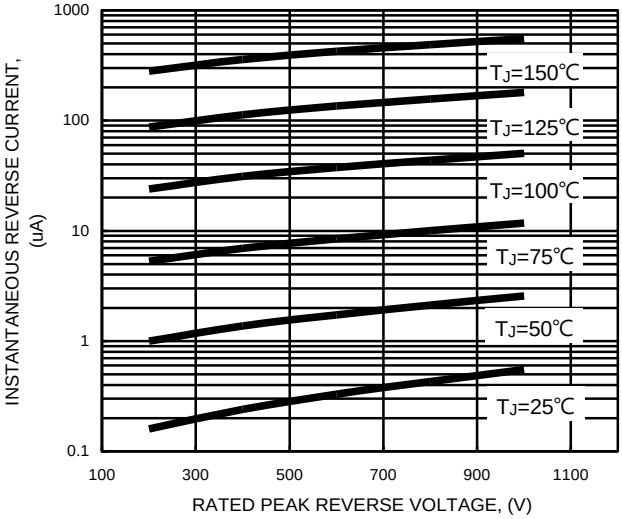


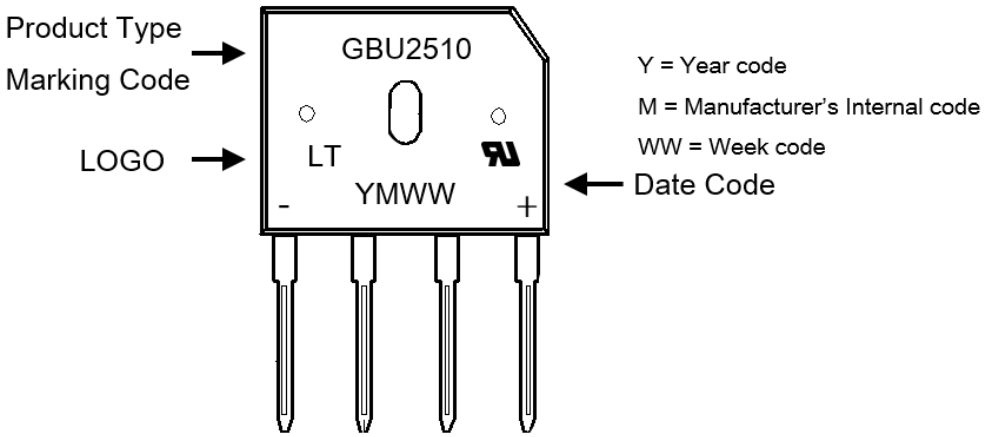
FIG.6-TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBU2510_HF	GBU	20	Tube

Marking Information :



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