LITE-ON SEMICONDUCTOR

GBU604 thru GBU610

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE **- 400** to **1000** Volts
FORWARD CURRENT **- 6.0** Amperes

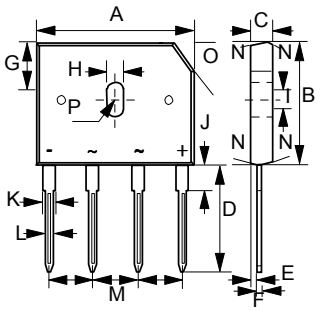
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL Recognition File # E95060

MECHANICAL DATA

- Polarity : As marked on Body
- Weight : 0.15 ounces, 4.0 grams
- 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℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	GBU 604	GBU 606	GBU 608	GBU 610	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2) Rectified Current @T_C=100℃ (without heatsink)	$I_{(AV)}$	6.0 2.8				A
Peak Forward Surge Current 8.3ms single half sine-wave @T_J =25℃ @T_J =125℃	I_{FSM}	175 140				A
Peak Forward Surge Current 1.0ms single half sine-wave @T_J =25℃ @T_J =125℃	I_{FSM}	350 280				A
Maximum forward Voltage at 3.0A DC	V_F	1.0				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J =25℃ @T_J =125℃	I_R	5.0 500				uA
I^2t Rating for fusing (t < 8.3ms)	I^2t	127				A^2S
Typical Junction Capacitance per element (Note 1)	C_J	45				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.2				℃/W
Typical Thermal Resistance (without heatsink)	$R_{\theta JC}$	6.0				℃/W
Operating Temperature Range	T_J	-55 to +150				℃
Storage Temperature Range	T_{STG}	-55 to +150				℃

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink

REV. 8, Aug-2014, KBDJ02

RATING AND CHARACTERISTIC CURVES
GBU604 thru GBU610

FIG.1 - FORWARD CURRENT DERATING CURVE

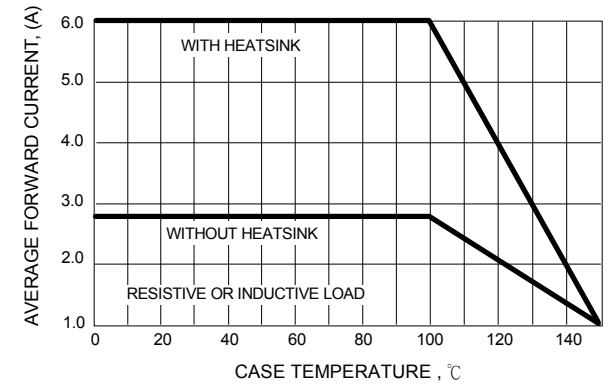


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

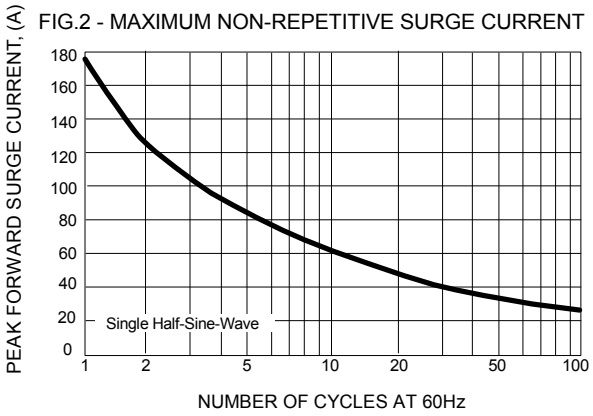


FIG.3 - TYPICAL JUNCTION CAPACITANCE

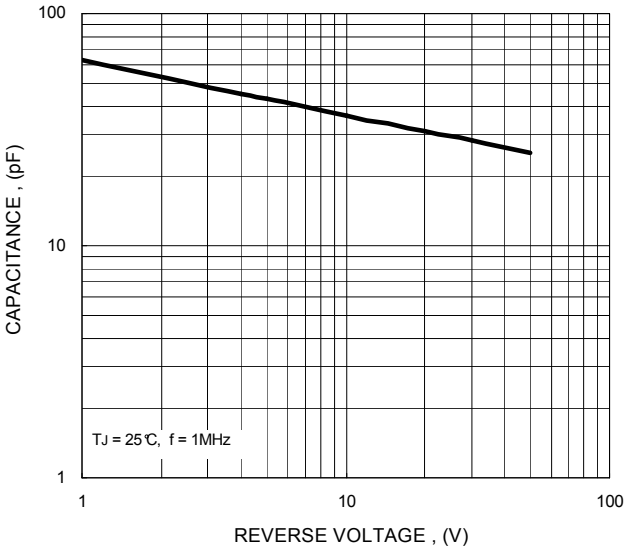


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

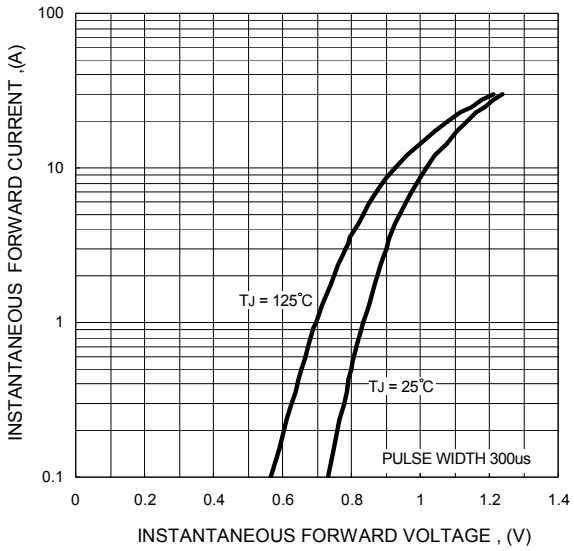
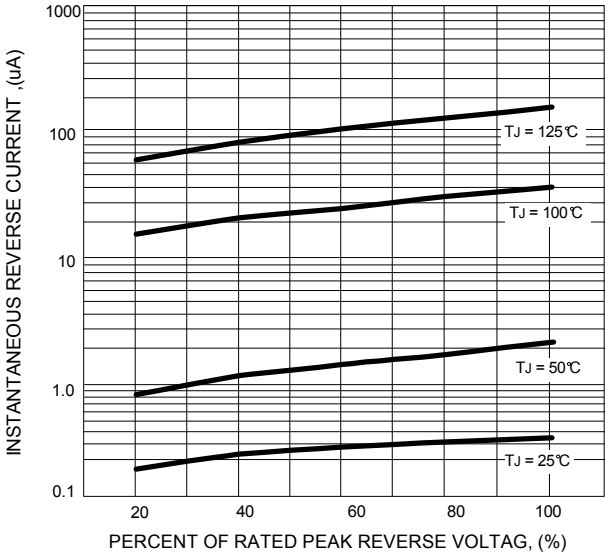


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.