

Glass Passivated Single-Phase Bridge Rectifier

FEATURES

- Ideal for printed circuit board
- High case dielectric strength of 1500 VRMS
- High surge current capability
- Typical IR less than 0.1μA
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



MECHANICAL DATA

Case: GBU

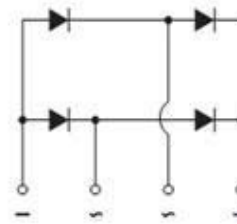
Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Polarity: As marked

Weight: 4 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)										
PARAMETER	SYMBOL	GBU 801	GBU 802	GBU 803	GBU 804	GBU 805	GBU 806	GBU 807	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current	I _{F(AV)}	8							A	
Peak forward surge current, 8.3 ms single half sine-wave	I _{FSM}	200							A	
Rating of fusing (t<8.3ms)	I ² t	166							A ² s	
Maximum Instantaneous Forward Voltage (Note 1) I _F = 4 A I _F = 8 A	V _F					1.0 1.1				V
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R					5 500				μA
Typical junction capacitance per leg (Note 2)	C _j	211				94			pF	
Typical thermal resistance	R _{θJC} R _{θJA}					2 21				°C/W
Operating junction temperature range	T _J	- 55 to +150							°C	
Storage temperature range	T _{STG}	- 55 to +150							°C	

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1MHz and applied Reverse bias of 4.0V DC

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
GBU80x (Note 1)	C2	G	GBU	20 / Tube
	D2			20 / Tube
	X0			Forming

Note 1: "x" defines voltage from 50V (GBU801) to 1000V (GBU807)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
GBU806 C2	GBU806	C2		
GBU806 C2G	GBU806	C2	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG. 1- MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

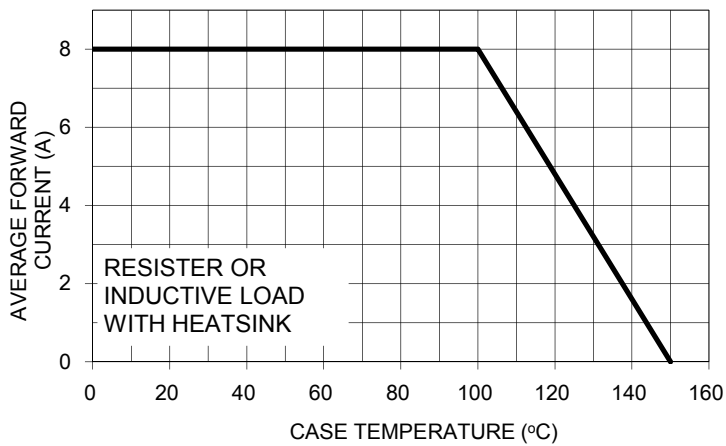


FIG. 2- MAXIMUM FORWARD SURGE CURRENT PER LEG



FIG. 3- TYPICAL REVERSE CHARACTERISTICS PER LEG

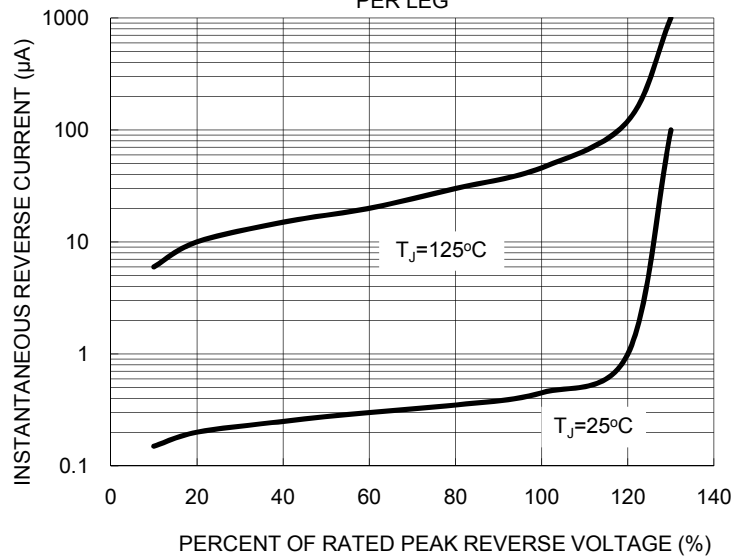


FIG. 4- TYPICAL FORWARD CHARACTERISTICS PER LEG

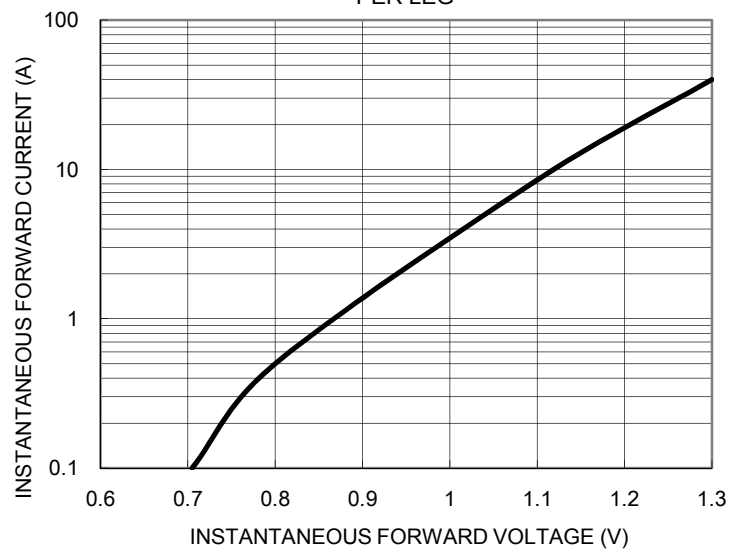
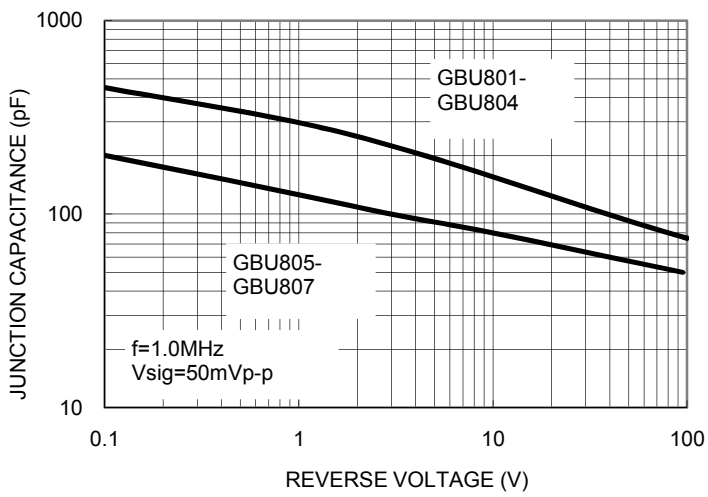
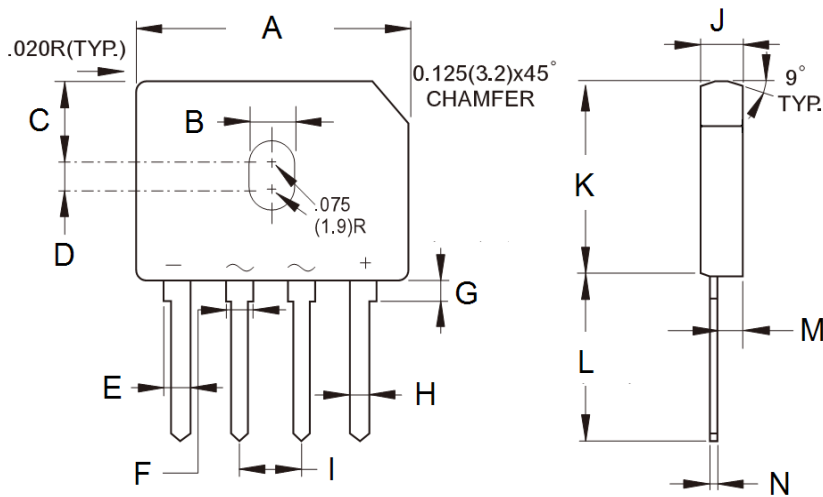


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG



PACKAGE OUTLINE DIMENSIONS

GBU



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	21.80	22.30	0.858	0.878
B	3.50	4.10	0.138	0.161
C	7.40	7.90	0.291	0.311
D	1.65	2.16	0.065	0.085
E	2.16	2.54	0.085	0.100
F	1.65	2.03	0.065	0.080
G	1.52	2.03	0.060	0.080
H	1.02	1.27	0.040	0.050
I	4.83	5.33	0.190	0.210
J	3.30	3.56	0.130	0.140
K	18.30	18.80	0.720	0.740
L	17.50	18.00	0.689	0.709
M	1.90	2.16	0.075	0.085
N	0.46	0.56	0.018	0.022

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code
- F = Factory Code

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.