Glass Passivated Single-Phase Bridge Rectifier

FEATURES

- Ideal for printed circuit board
- High case dielectric strength of 1500 VRMS
- High surge current capability
- 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

GBU

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: GBU

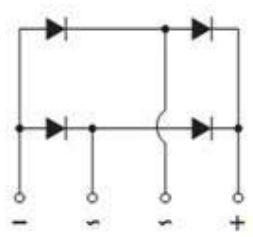
Molding compound, UL flammability classification rating 94V-0

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 401	GBU 402	GBU 403	GBU 404	GBU 405	GBU 406	GBU 407	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		$I_{F(AV)}$	4							A
Peak forward surge current, 8.3 ms single half sine-wave	T_J = 25°C	I_{FSM}	150							A
	T_J = 125°C		80							
Peak forward surge current, 1.0 ms single half sine-wave	T_J = 25°C	I_{FSM}	280							A
	T_J = 125°C		260							
Rating of fusing (t<8.3ms)		I^2t	93							A^2s
Maximum Instantaneous Forward Voltage (Note 1) I_F= 2 A I_F= 4 A		V_F	1.0 1.1							V
Maximum reverse current @ rated VR	T_J=25 ℃	I_R	5							μA
	T_J=125 ℃		500							
Typical junction capacitance per leg (Note 2)		Cj	100				45			pF
Typical thermal resistance		$R_{\theta JC}$ $R_{\theta JA}$	4 20							°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
GBU40x (Note 1)	C2	G	GBU	20 / Tube
	D2			20 / Tube
	X0			Forming

Note 1: "x" defines voltage from 50V (GBU401) to 1000V (GBU407)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
GBU406 C2	GBU406	C2		
GBU406 C2G	GBU406	C2	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

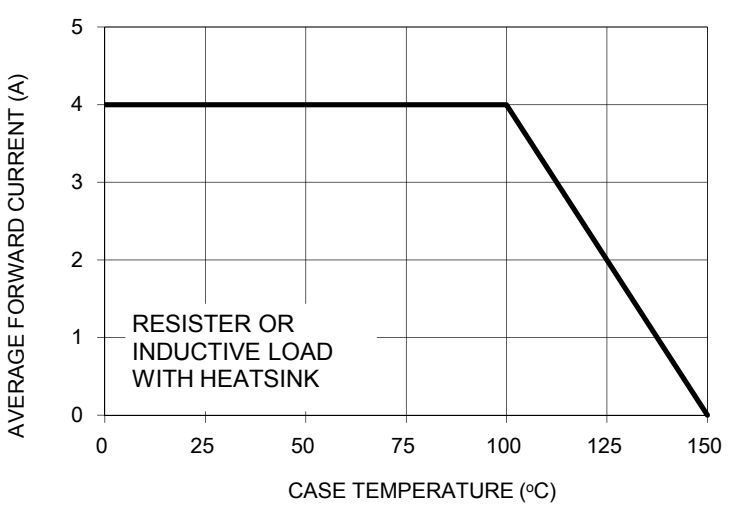


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

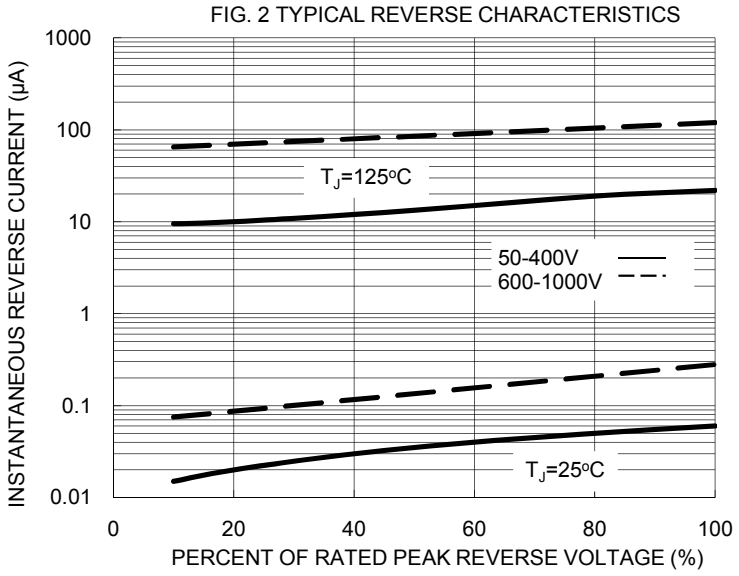


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

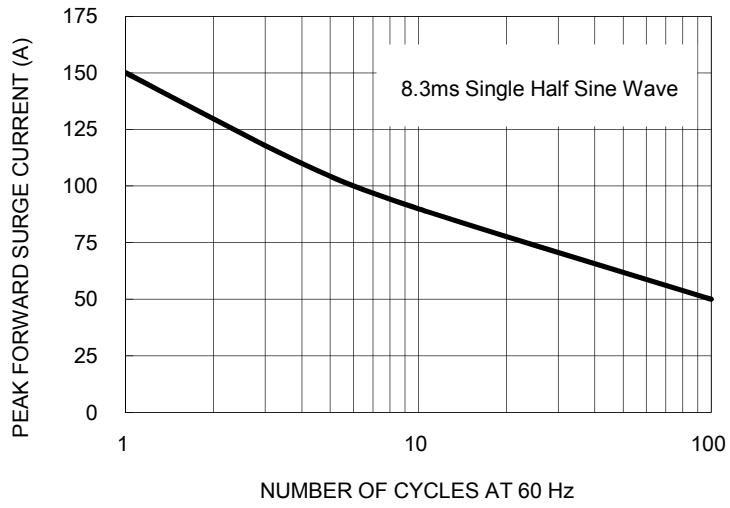


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

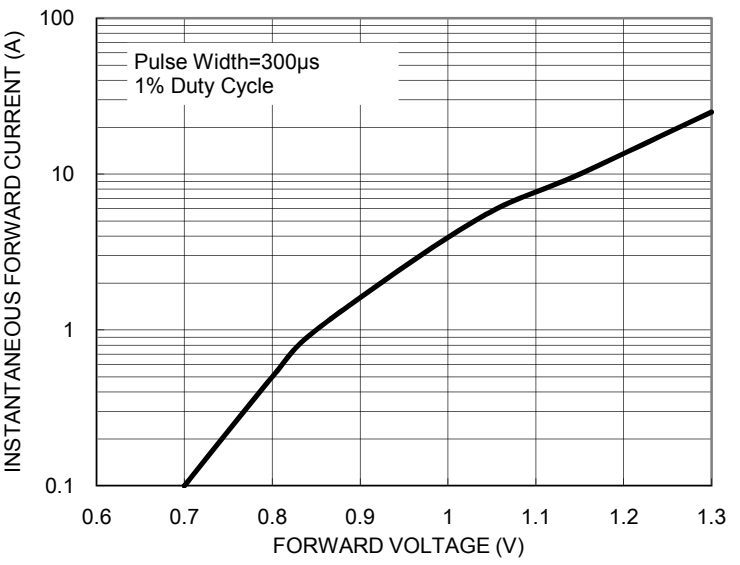
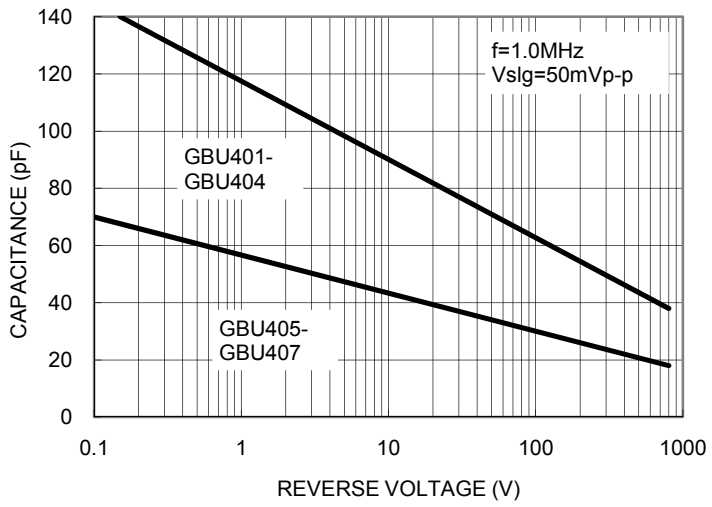
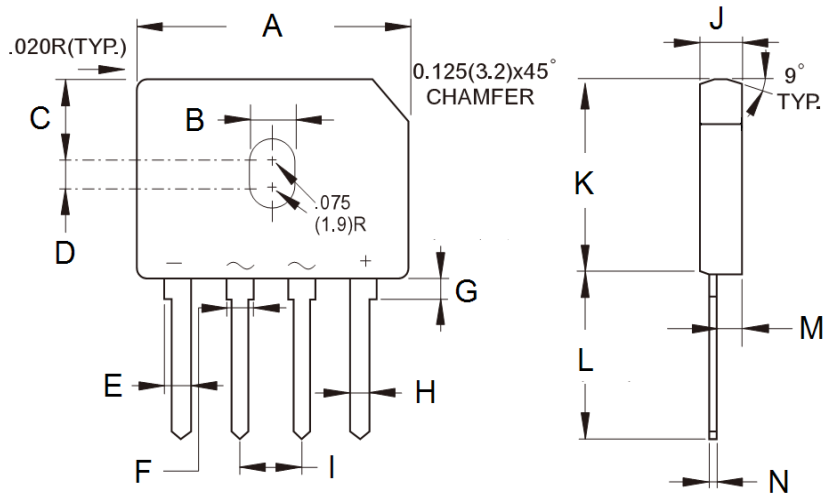


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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

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