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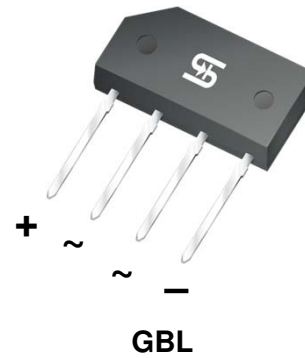
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 4A, 50V - 1000V Glass Passivated Single Phase Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength
- Typical  $I_R$  less than 0.1 $\mu$ A
- 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



### MECHANICAL DATA

**Case:** GBL

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

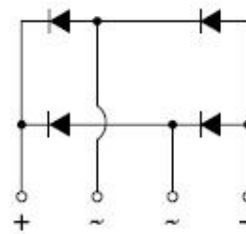
Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Weight:** 2.0 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)										
PARAMETER	SYMBOL	GBLA 005	GBLA 01	GBLA 02	GBLA 04	GBLA 06	GBLA 08	GBLA 10	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 @ $T_C=50^\circ\text{C}$ @ $T_A=40^\circ\text{C}$	$I_{F(AV)}$								4 3	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$								120	A
Rating for fusing ( $t<8.3\text{ms}$ )	$I^2t$								59	$\text{A}^2\text{s}$
Maximum instantaneous forward voltage (Note 1) @ 4 A	$V_F$								1.0	V
Maximum reverse current @ rated $V_R$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$								5 500	$\mu\text{A}$
Typical junction capacitance	$C_J$					95		40		pF
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JA}$					10 47				$^\circ\text{C/W}$
Operating junction temperature range	$T_J$								- 55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$								- 55 to +150	$^\circ\text{C}$

Note 1: Pulse test with  $PW=300\mu\text{s}$ , 1% duty cycle

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
GBLAxx (Note 1)	H	C2	G	GBL	25 / Tube
		X0		GBL	25 / Tube / Forming
		D2		GBL	25 / Tube

Note 1: "xx" defines voltage from 50V (GBLA005) to 1000V (GBLA10)

\*: Optional available

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
GBLA10HC2G	GBLA10	H	C2	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

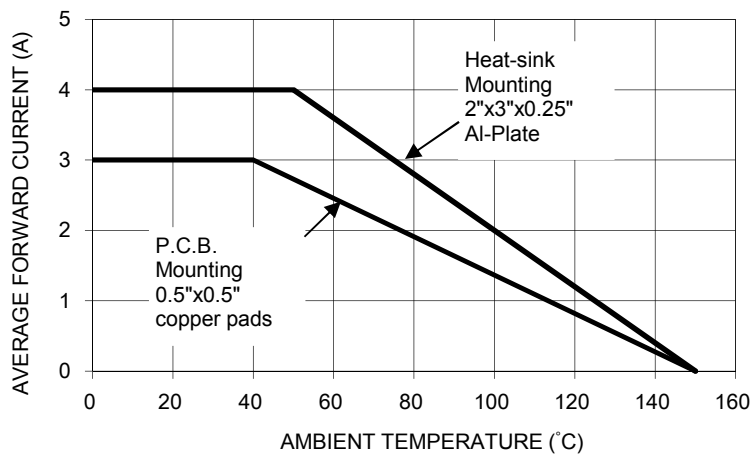


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

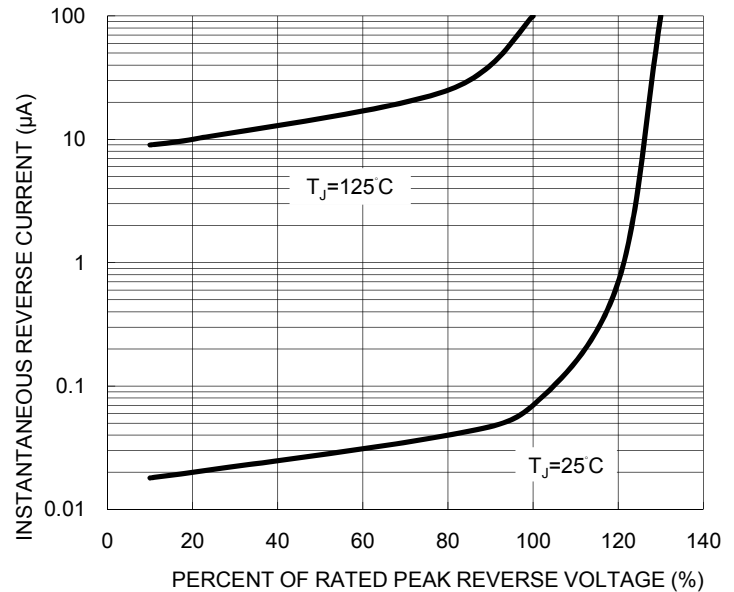


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

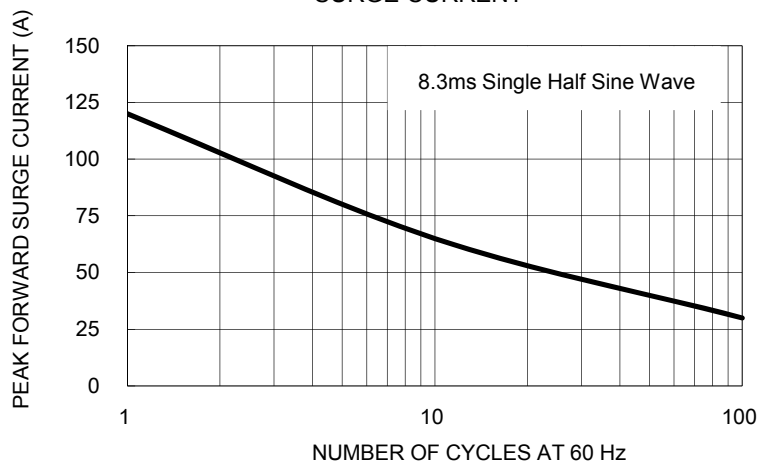


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

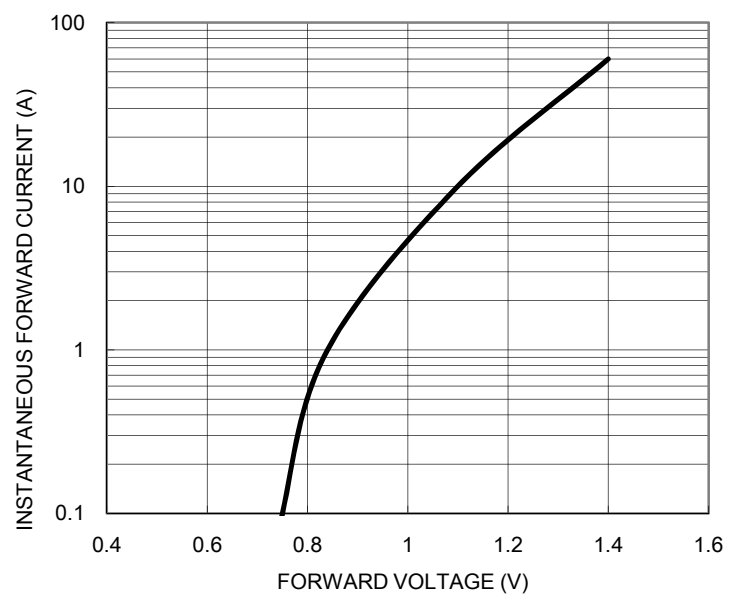
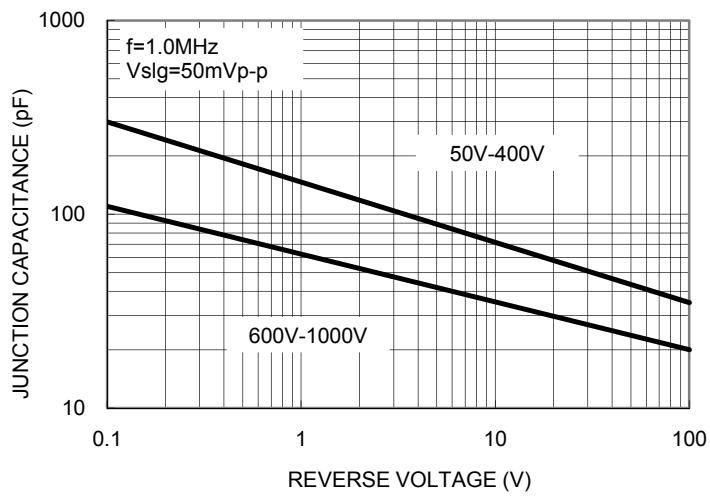


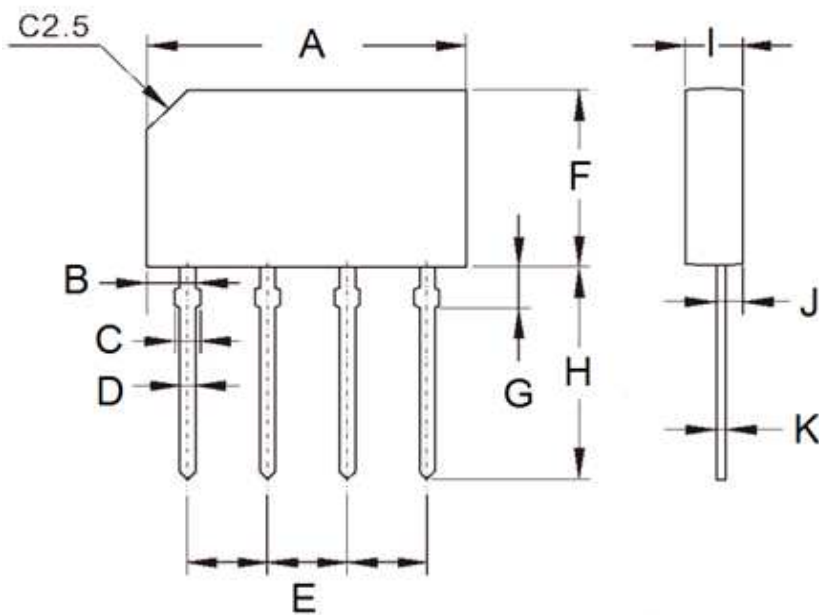


FIG. 5 TYPICAL JUNCTION CAPACITANCE



**PACKAGE OUTLINE DIMENSIONS**

**GBL**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	19.70	20.30	0.776	0.799
B	2.30	2.70	0.091	0.106
C	1.30	2.00	0.051	0.079
D	0.90	1.10	0.035	0.043
E	4.80	5.20	0.189	0.205
F	10.70	11.30	0.421	0.445
G	2.30	2.70	0.091	0.106
H	13.00	14.00	0.512	0.551
I	3.30	3.70	0.130	0.146
J	0.80	1.20	0.031	0.047
K	0.40	0.60	0.016	0.024

**MARKING DIAGRAM**



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

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