4A, 50V - 1000V Standard Bridge Rectifier

FEATURES

- AEC-Q101 qualified available
- Glass passivated chip junction
- Ideal for printed circuit board
- High case dielectric strength
- Typical IR less than 0.1μA
- UL Recognized File # E-326243
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	4	A
V_{RRM}	50 - 1000	V
I_{FSM}	150	A
$T_{J\ MAX}$	150	°C
Package	GBL	
Configuration	Quad	

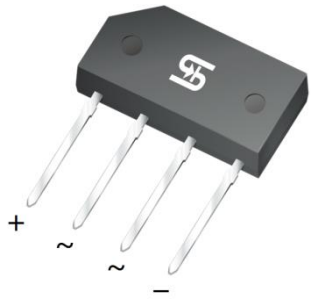
APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- Lighting application

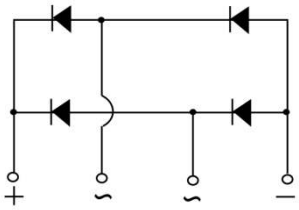
MECHANICAL DATA

- Case: GBL
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 2 whisker test
- Polarity: As marked
- Weight: 2.00g (approximately)

Pb-Free RoHS COMPLIANT HALOGEN FREE



GBL



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

PARAMETER		SYMBOL	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 10	UNIT
Marking code on the device			GBL005	GBL01	GBL02	GBL04	GBL06	GBL08	GBL10	
Repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Reverse voltage, total rms value		$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Forward current	T_C = 50°C	I_F	4							A
	T_A = 40°C		3							A
Surge peak forward current, 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	150							A
Rating for fusing (t<8.3ms)		I^2t	93							A^2s
Junction temperature		T_J	- 55 to +150							°C
Storage temperature		T_{STG}	- 55 to +150							°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance	$R_{\Theta JL}$	13	°C/W
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	32	°C/W
Junction-to-case thermal resistance	$R_{\Theta JC}$	8	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)

PARAMETER		CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode[1]		I_F = 2A, T_J = 25°C	V_F	-	1.0	V
		I_F = 4A, T_J = 25°C		-	1.1	V
Reverse current @ rated V_R per diode[2]		T_J = 25°C	I_R	-	5	μA
		T_J = 125°C		-	500	μA
Junction capacitance per diode	GBL005 GBL01 GBL02 GBL04	1MHz, V_R = 4.0V	C_J	95	-	pF
	GBL06 GBL08 GBL10			40	-	pF

Notes:

1. Pulse test with PW = 0.3ms
2. Pulse test with PW = 30ms

ORDERING INFORMATION

ORDERING CODE[1][2]	PACKAGE	PACKING
GBLx	GBL	25 / Tube
GBLxH	GBL	25 / Tube

Notes:

1. "x" defines voltage from 50V(GBL005) to 1000V(GBL10)
2. "H" means AEC-Q101 qualified

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

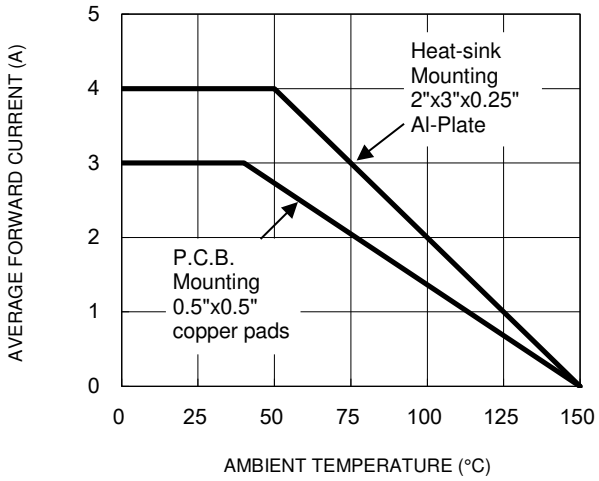


Fig.2 Typical Junction Capacitance

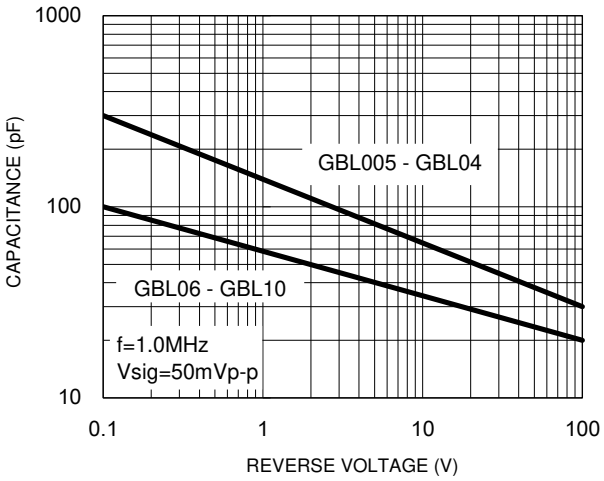


Fig.3 Typical Reverse Characteristics

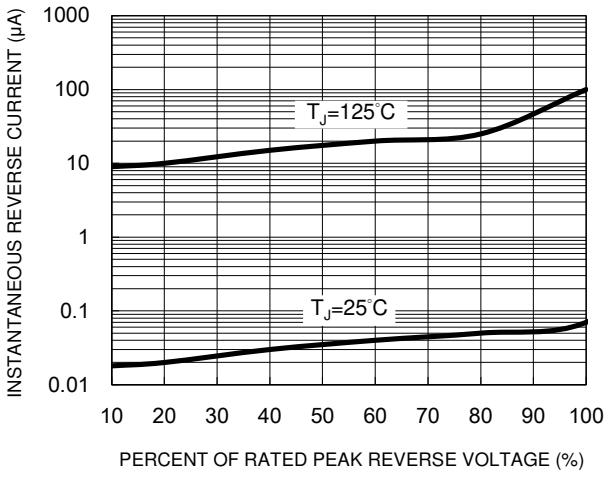


Fig.4 Typical Forward Characteristics

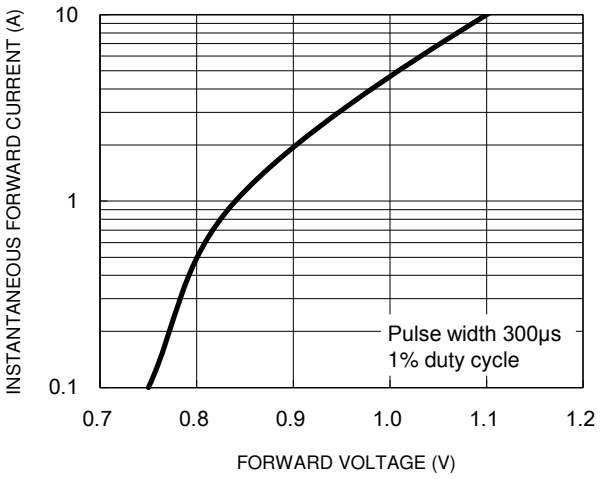
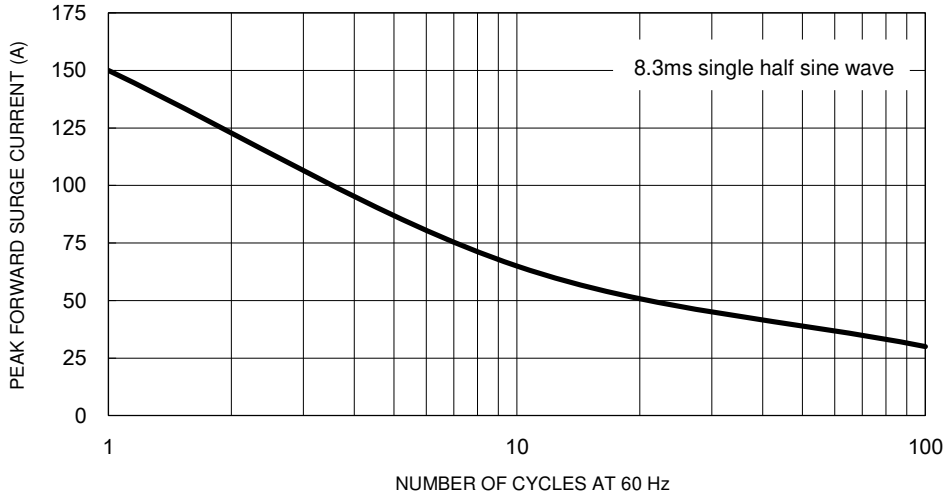
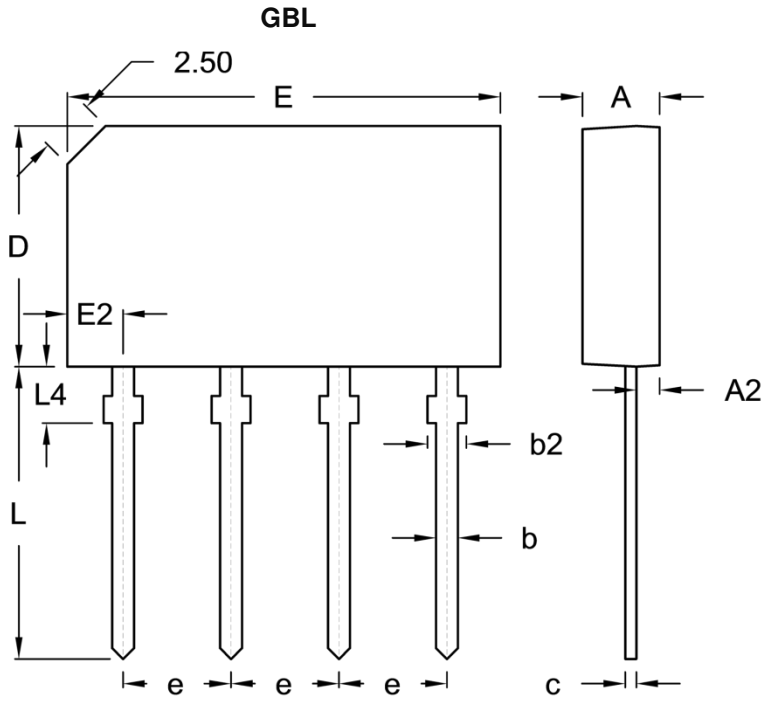


Fig.5 Maximum Non-Repetitive Forward Surge Current



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A2	0.80	1.20	0.031	0.047
b	0.90	1.10	0.035	0.043
b2	1.30	2.00	0.051	0.079
c	0.40	0.60	0.016	0.024
D	10.70	11.30	0.421	0.445
E	19.70	20.30	0.776	0.799
E2	2.30	2.70	0.091	0.106
e	4.80	5.20	0.189	0.205
L	13.00	14.00	0.512	0.551
L4	2.30	2.70	0.091	0.106

MARKING DIAGRAM

P/N = Marking Code
G = Green Compound
YWW = Date Code
F = Factory Code

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