

2A, 50V - 800V Standard Bridge Rectifier

FEATURES

- AEC-Q101 qualified available
- Ideal for printed circuit board
- High case dielectric strength
- High surge current capability
- UL Recognized File # E-326243
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

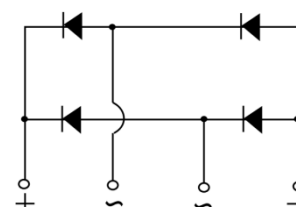
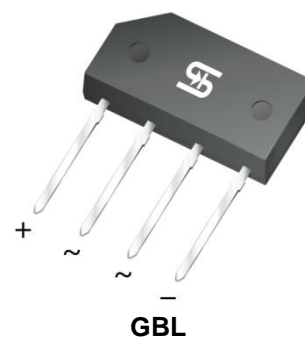
APPLICATIONS

- 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)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	2	A
V_{RRM}	50 - 800	V
I_{FSM}	80	A
$T_{J\ MAX}$	150	°C
Package	GBL	
Configuration	Quad	



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	D2SB	D2SB	D2SB	D2SB	D2SB	D2SB	UNIT
		05	10	20	40	60	80	
Marking code on the device		D2SB05	D2SB10	D2SB20	D2SB40	D2SB60	D2SB80	
Repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	V
Reverse voltage, total rms value	$V_{R(RMS)}$	35	70	140	280	420	560	V
Forward current	I_F	2						A
Surge peak forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80						A
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	26						A ² s
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	$R_{\theta JL}$	10	°C/W
Junction-to-ambient thermal resistance	$R_{\theta JA}$	47	°C/W

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	$I_F = 2\text{A}, T_J = 25^\circ\text{C}$	V_F	-	1.1	V
Reverse current @ rated V_R per diode ⁽²⁾	$T_J = 25^\circ\text{C}$	I_R	-	10	μA
	$T_J = 125^\circ\text{C}$		-	500	μA

Notes:

1. Pulse test with $PW = 0.3\text{ms}$
2. Pulse test with $PW = 30\text{ms}$

ORDERING INFORMATION		
ORDERING CODE ⁽¹⁾⁽²⁾	PACKAGE	PACKING
D2SBx	GBL	25 / Tube
D2SBxH	GBL	25 / Tube

Notes:

1. "x" defines voltage from 50V(D2SB05) to 800V(D2SB80)
2. "H" means AEC-Q101 qualified

CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

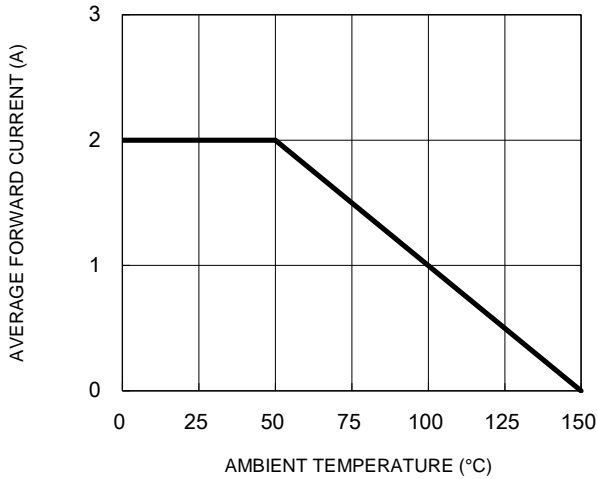


Fig.2 Typical Junction Capacitance

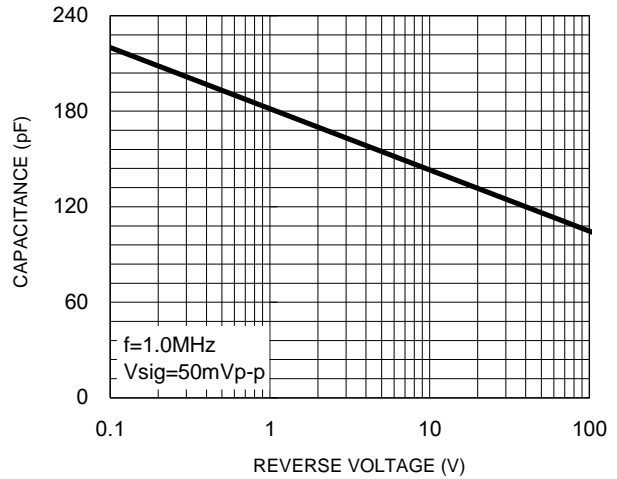


Fig.3 Typical Reverse Characteristics

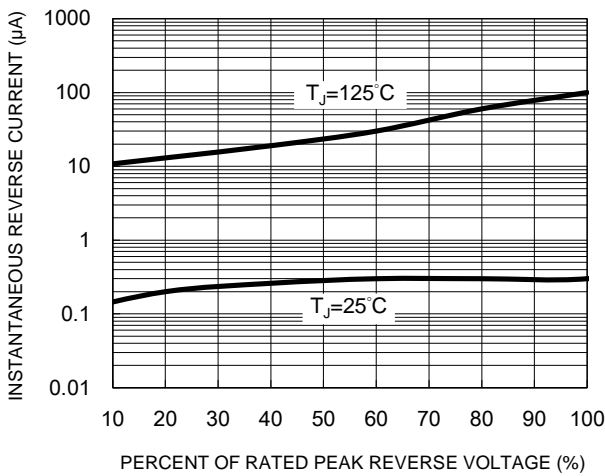


Fig.4 Typical Forward Characteristics

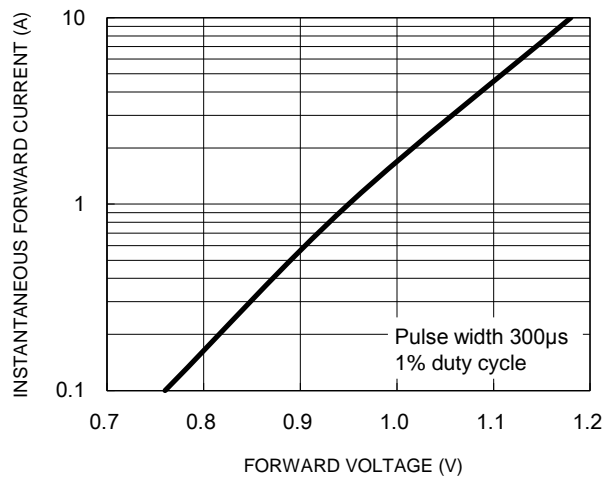
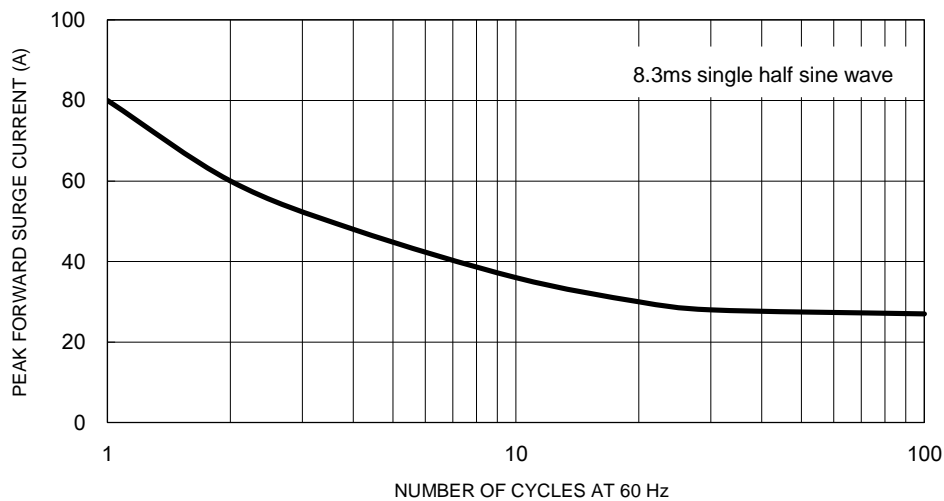
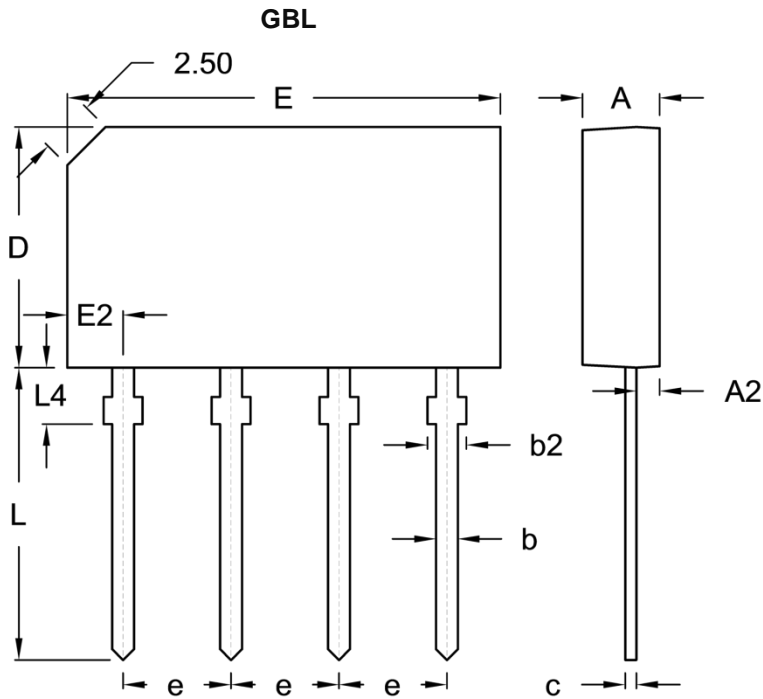


Fig.5 Maximum Non-Repetitive Forward Surge Current



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