1A, 600V - 1000V Glass Passivated Bridge Rectifier

FEATURES

- Glass passivated junction
- Ideal for automated placement
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- UL Recognized File # E-326854
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

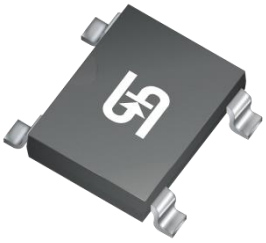
- Switching mode power supply (SMPS)
- Adapters
- Lighting application

MECHANICAL DATA

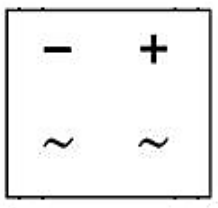
- Case: ABS
- Molding compound :meets UL 94V-0 flammability rating
- Packing code with suffix "G" means green compound (halogen-free)
- Moisture sensitivity level: level 1, per J-STD-020
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: As marked
- Weight: 0.12 g (approximately)

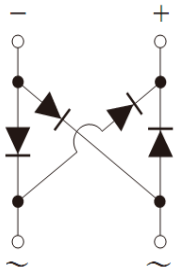
KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
$I_{F(AV)}$	1	A
V_{RRM}	600 - 1000	V
I_{FSM}	30	A
$T_{J\ MAX}$	150	°C
Package	ABS	
Configuration	Quad	

Pb-Free RoHS COMPLIANT HALOGEN FREE



ABS





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

PARAMETER		SYMBOL	ABS6-T	ABS8-T	ABS10-T	UNIT
Marking code on the device			ABS6	ABS8	ABS10	
Repetitive peak reverse voltage		V_{RRM}	600	800	1000	V
Reverse voltage, total rms value		$V_{R(RMS)}$	420	560	700	V
Maximum DC blocking voltage		V_{DC}	600	800	1000	V
Forward current On glass-epoxy		$I_{F(AV)}$	0.8			A
Forward current On aluminum substrate			1.0			
Surge peak forward current, 8.3 ms single half sine-wave superimposed on rated load	T_J = 25°C	I_{FSM}	30			A
	T_J = 125°C		25			
Surge peak forward current, 1.0 ms single half sine-wave superimposed on rated load	T_J = 25°C		60			A
	T_J = 125°C		50			
I^2t value (of a surge on-state current)		I^2t	3.74			A^2s
Junction temperature		T_J	-55 to +150			°C
Storage temperature		T_{STG}	-55 to +150			°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	LIMIT	UNIT
Junction-to-lead thermal resistance	$R_{\Theta JL}$	25	°C/W
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	80	°C/W

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

PARAMETER	CONDITIONS	SYMBOL	TYP.	MAX.	UNIT
Forward voltage (1)	I_F = 0.4A, T_J = 25°C	V_F	-	0.95	V
Reverse current @ rated V_R (2)	T_J = 25°C	I_R	-	10	μA
	T_J = 125°C		-	150	μA

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

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
ABSxx-T (Note 1, 2)	RE	G	ABS	1,000 / 7" Plastic reel
	RG		ABS	5,000 / 13" Paper reel

Notes:
1. "xx" defines voltage from 600V (ABS6-T) to 1000V (ABS10-T)
2. Whole series with green compound (halogen-free)

EXAMPLE P/N

EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
ABS6-T REG	ABS6-T	RE	G	Green compound

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

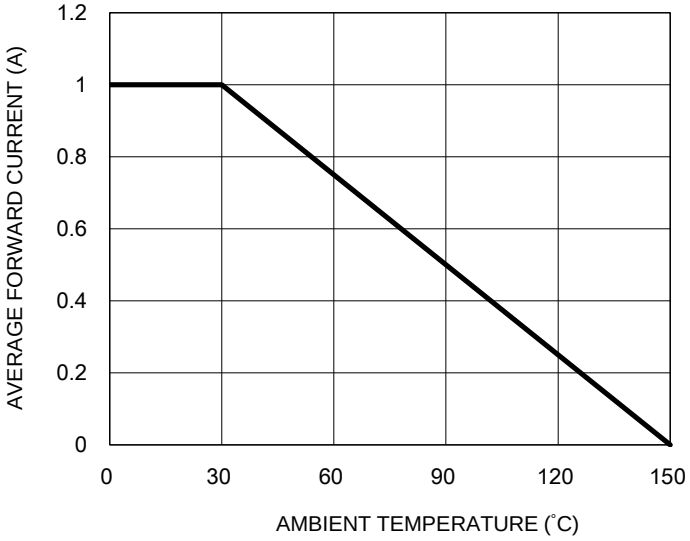


Fig.2 Typical Junction Capacitance

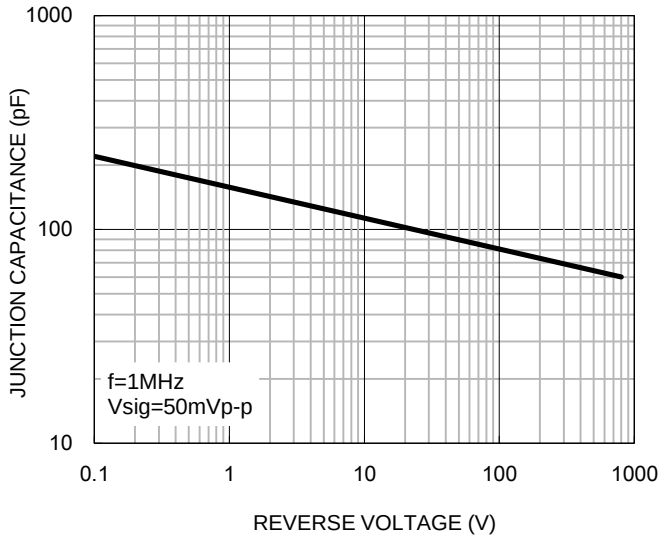


Fig.3 Typical Reverse Characteristics

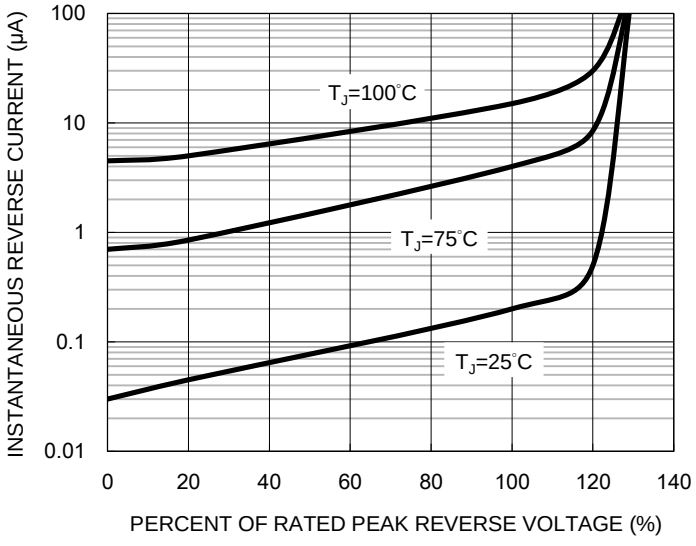
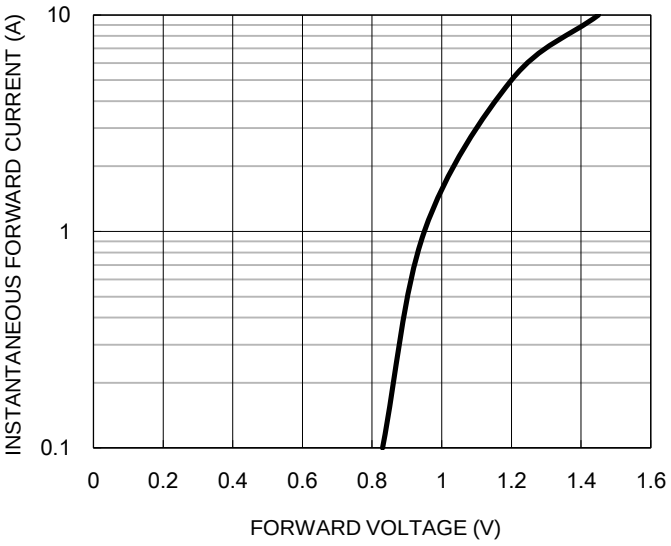


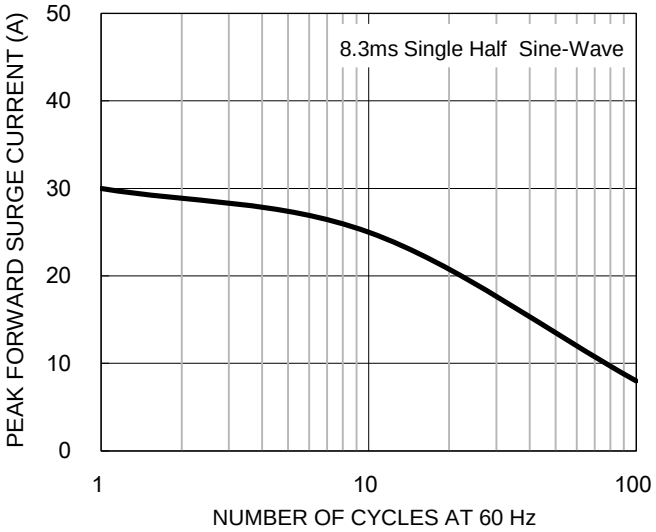
Fig.4 Typical Forward Characteristics



CHARACTERISTICS CURVES

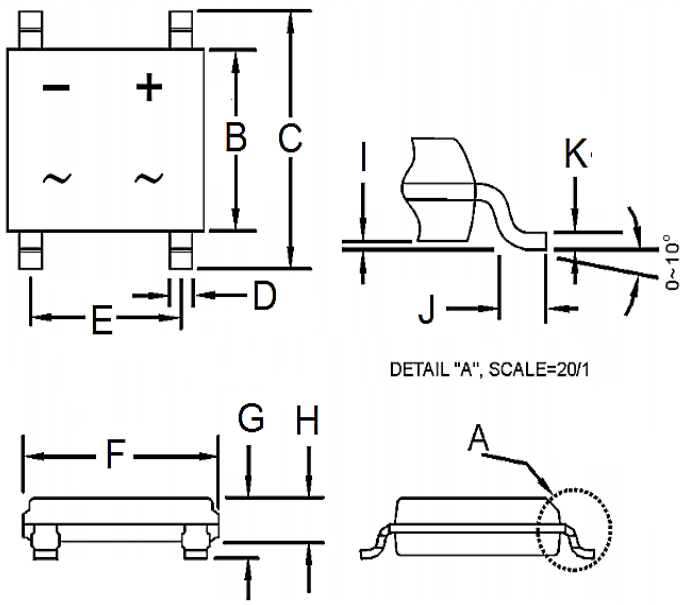
(T_A = 25°C unless otherwise noted)

Fig.5 Maximum Non-repetitive Forward Surge Current



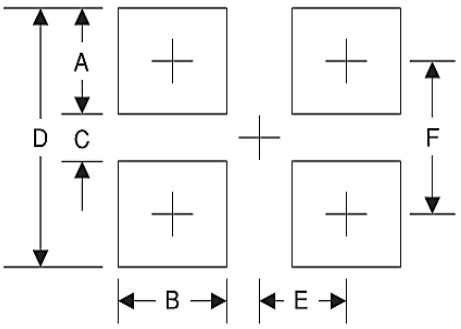
PACKAGE OUTLINE DIMENSIONS

ABS



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
B	4.30	4.50	0.169	0.177
C	6.25	6.65	0.246	0.262
D	0.60	0.70	0.024	0.028
E	3.90	4.10	0.154	0.161
F	4.90	5.10	0.193	0.200
G	1.40	1.60	0.055	0.063
H	1.35	1.45	0.053	0.057
I	0.05	0.15	0.002	0.006
J	0.30	0.70	0.012	0.028
K	0.15	0.25	0.006	0.010

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.5	0.059
B	0.9	0.035
C	4.22	0.166
D	7.22	0.284
E	2.05	0.081
F	5.72	0.225

MARKING DIAGRAM

P/N = Marking Code
YW = Date Code
F = Factory Code

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