

## 1.5A, 600V - 1000V Glass Passivated Bridge Rectifiers

### FEATURES

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



ABS

### MECHANICAL DATA

**Case:** Molded plastic body

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

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

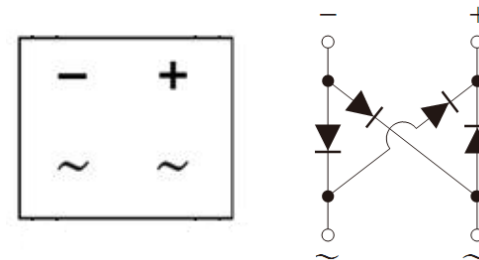
Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 2 whisker test

**Polarity:** Polarity as marked on the body

**Weight:** 0.096 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)						
PARAMETER	SYMBOL	ABS15J		ABS15M		Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600		1000		V
Maximum RMS voltage	V <sub>RMS</sub>	420		700		V
Maximum DC blocking voltage	V <sub>DC</sub>	600		1000		V
Maximum average forward rectified current On glass-epoxy On aluminum substrate	I <sub>F(AV)</sub>	1.5 2.0				A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	40				A
Peak forward surge current, 1 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100				A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	6.64				A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 0.5 A I <sub>F</sub> = 1.5 A	V <sub>F</sub>	TYP 0.88 0.97	MAX - 1.00	TYP 0.88 0.97	MAX - 1.00	V
Maximum reverse current @ rated V <sub>R</sub> T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	5 150				μA
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	25 80				°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150				°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150				°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

**ORDERING INFORMATION**

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
ABS15x (Note 1)	H	RE	G	ABS	1,000 / 7" Plastic reel
		RG		ABS	5,000 / 13" Paper reel

Note 1: "x" defines voltage from 600V (ABS15J) to 1000V (ABS15M)

Note 2: Whole series with green compound

**EXAMPLE**

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
ABS15JHREG	ABS15J	H	RE	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

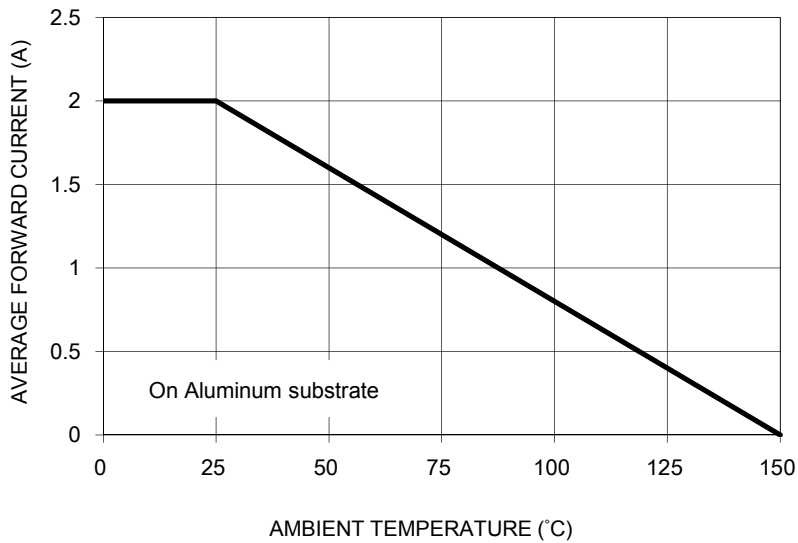


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

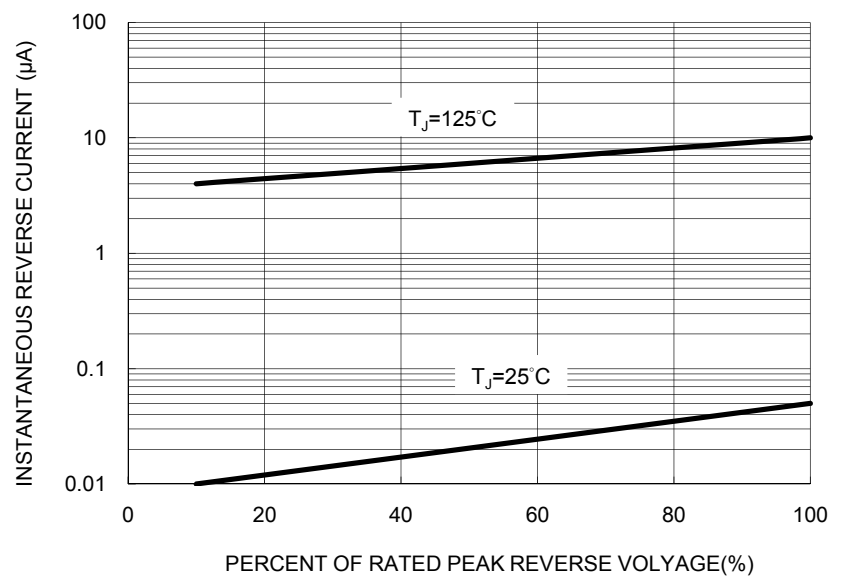


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

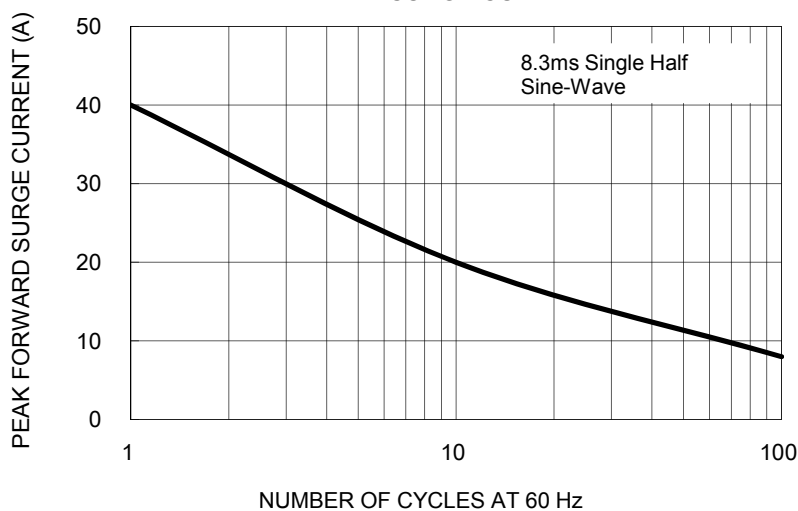


FIG. 4 TYPICAL JUNCTION CAPACITANCE

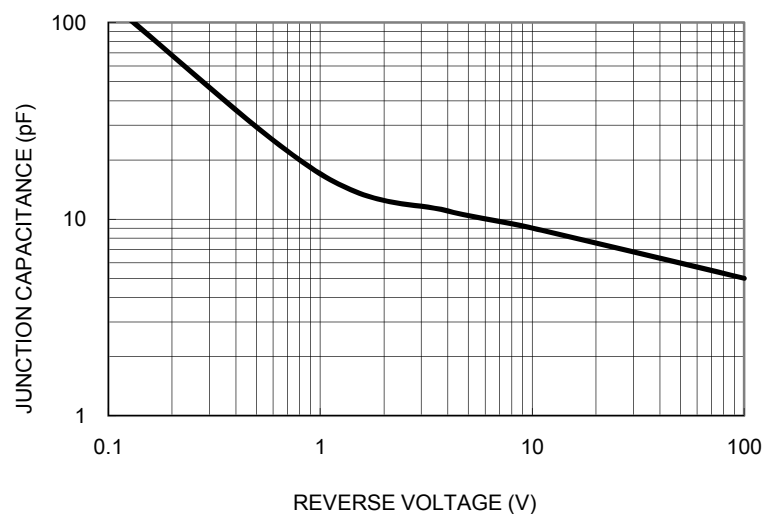
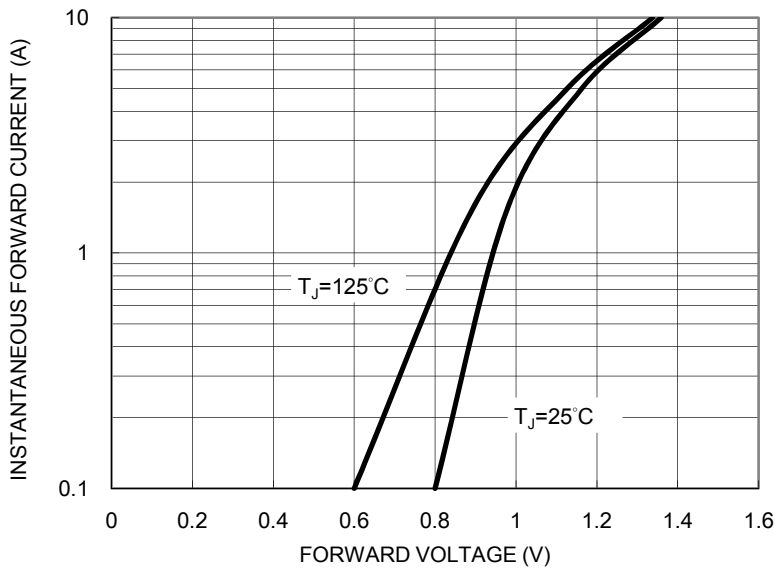
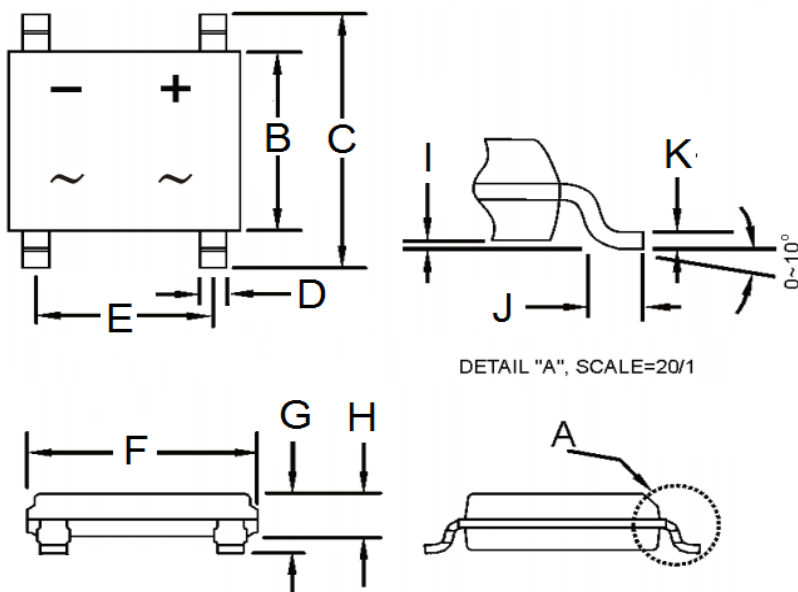


FIG. 5 TYPICAL FORWARD CHARACTERISTICS



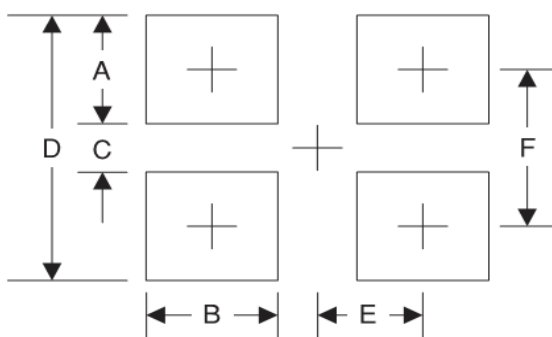
PACKAGE OUTLINE DIMENSIONS

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	1.50	0.059
B	0.90	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 = Specific Device Code  
YW = Date Code  
F = Factory Code

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