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## 1.5A, 1000V Miniature Fast Recovery Glass Passivated Surface Bridge Rectifier

### FEATURES

- Ideal for automated placement, for compact PCB design
- High surge current capability
- Ultrafast reverse recovery time for high frequency
- Negligible leakage current
- 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:** Molded plastic body

Molding compound, UL flammability classification rating 94V-0

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

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

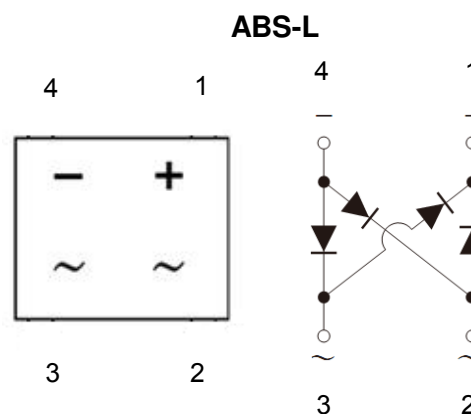
Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 2 whisker test

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

**Weight:** 0.09 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	RABS15M	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	1.5	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50	A
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 1.5A	V <sub>F</sub>	1.30	V
Maximum reverse current @ rated V <sub>R</sub>	I <sub>R</sub>	1	μA
		200	
Maximum reverse recovery time per diode (Note 2)	t <sub>rr</sub>	500	ns
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	10	A <sup>2</sup> s
Typical thermal resistance	R <sub>θJL</sub>	26	°C/W
	R <sub>θJA</sub>	70	
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

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

**ORDERING INFORMATION**

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
RABS15M (Note 1)	H	RE	G	ABS-L	1,000 / 7" Plastic reel
		RG		ABS-L	5,000 / 13" Paper reel

Note 1: Whole series with green compound

**EXAMPLE**

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
RABS15MHREG	RABS15M	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

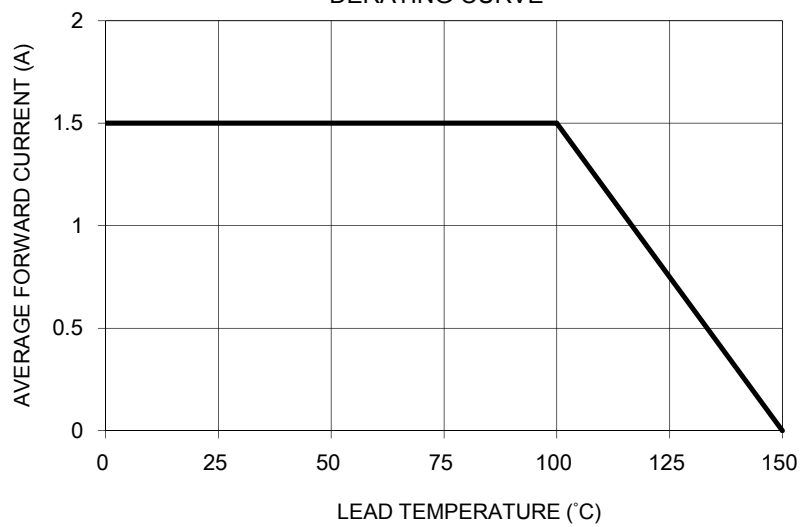


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

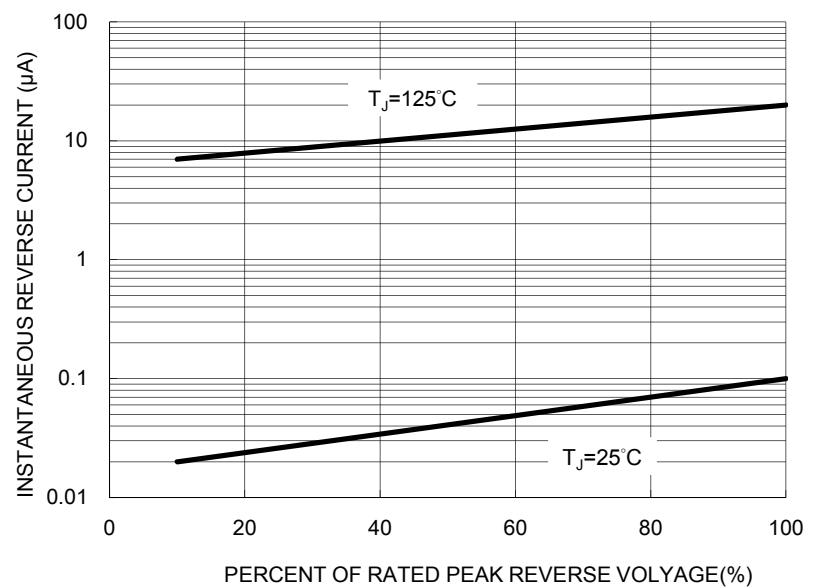


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

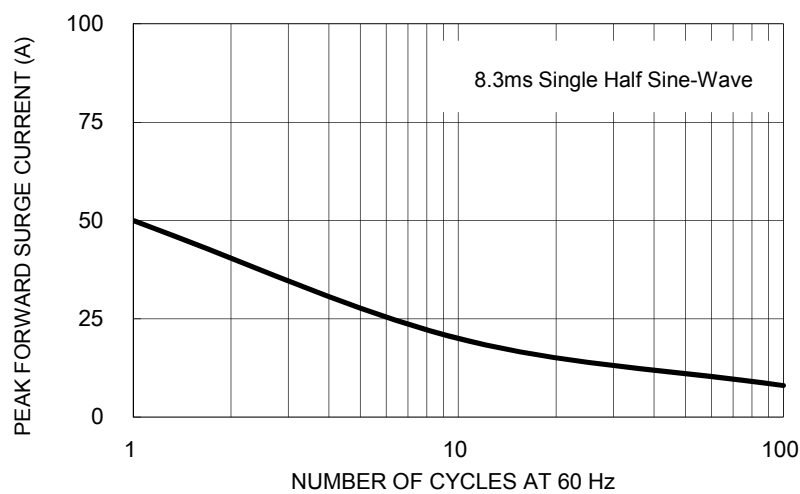


FIG. 4 TYPICAL JUNCTION CAPACITANCE

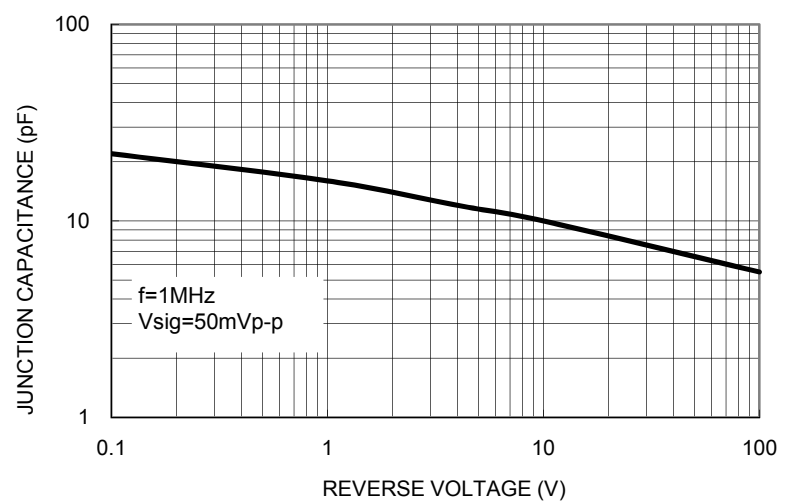
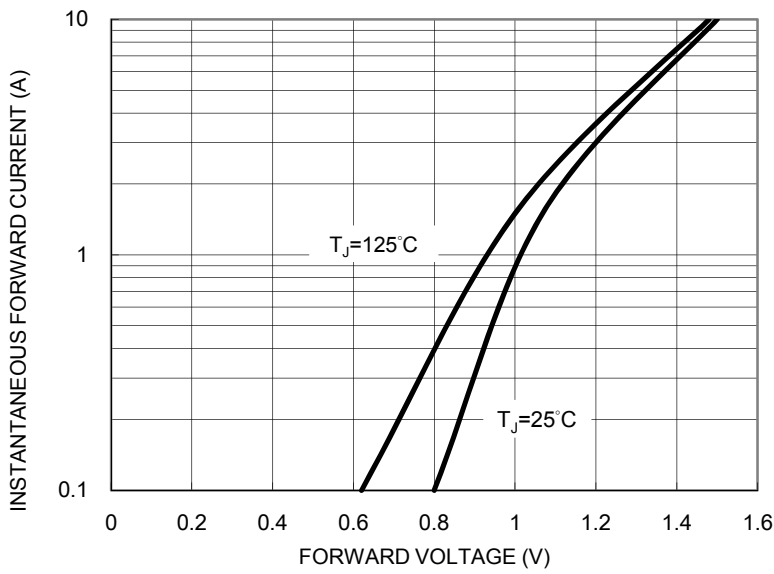
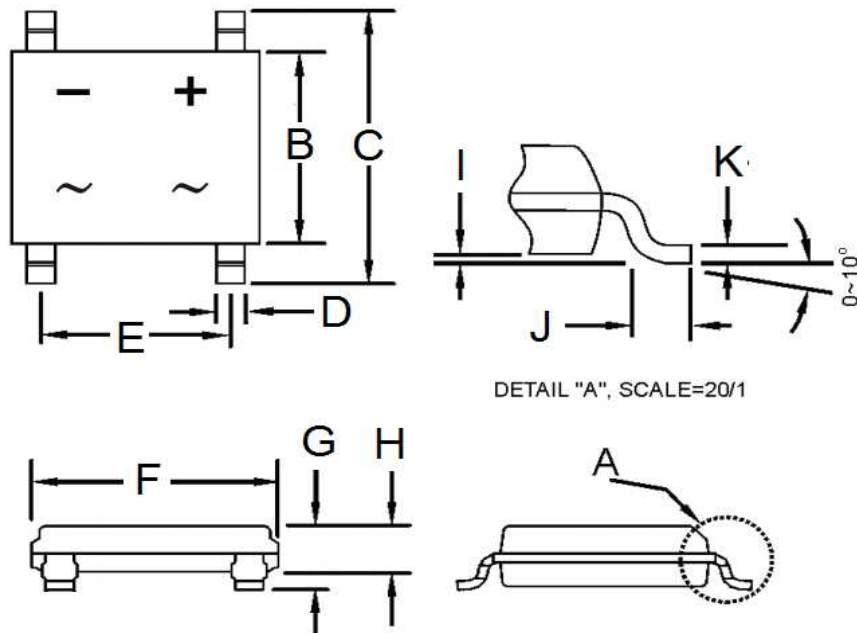


FIG. 5 TYPICAL FORWARD CHARACTERISTICS



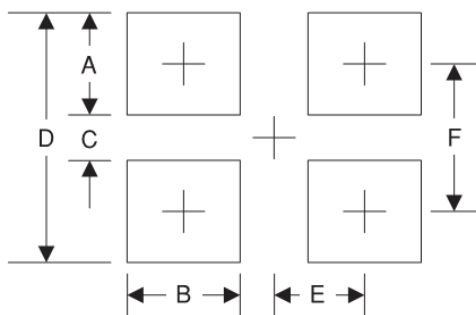
**PACKAGE OUTLINE DIMENSIONS**

**ABS-L**



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	0.201
G	1.25	1.35	0.049	0.053
H	1.20	1.30	0.047	0.051
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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