

## Miniature Glass Passivated Fast Recovery Surface Mount Bridge Rectifiers

### FEATURES

- Ideal for automated placement
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- Small size, simple installation
- Moisture sensitivity level: level 1, per J-STD-020
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 Qualified



**TO-269AA (MBS)**

### MECHANICAL DATA

**Case:** TO-269AA (MBS)

Molding compound, UL flammability classification rating 94V-0

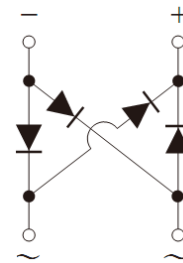
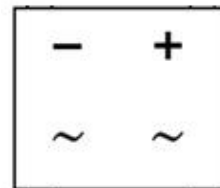
Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 2 whisker test

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

**Weight:** 0.12 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER	SYMBOL	RMB2S	RMB4S	RMB6S	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	V
Maximum average forward current 60Hz sine wave resistance load On glass-epoxy P.C.B. On aluminum substrate	I <sub>F(AV)</sub>		0.5 0.8		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>		30		A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t		3.74		A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 0.4	V <sub>F</sub>		1.00		V
Maximum DC reverse current at rated DC blocking voltage T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>		5 100		μA
Maximum reverse recovery time (Note 2)	t <sub>rr</sub>		150		ns
Typical junction capacitance per leg	C <sub>J</sub>		13		pF
Typical thermal resistance	R <sub>θJA</sub>		85		°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

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

**ORDERING INFORMATION**

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
RMBxS (Note 1,2)	RC	G	MBS	3,000 / 13" Paper reel

Note 1: "x" defines voltage from 200V (RMB2S) to 600V (RMB6S)

Note 2: Whole series with green compound

**EXAMPLE**

PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
RMB2S RCG	RMB2S	RC	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

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

FIG. 1 FORWARD CURRENT DERATING CURVE

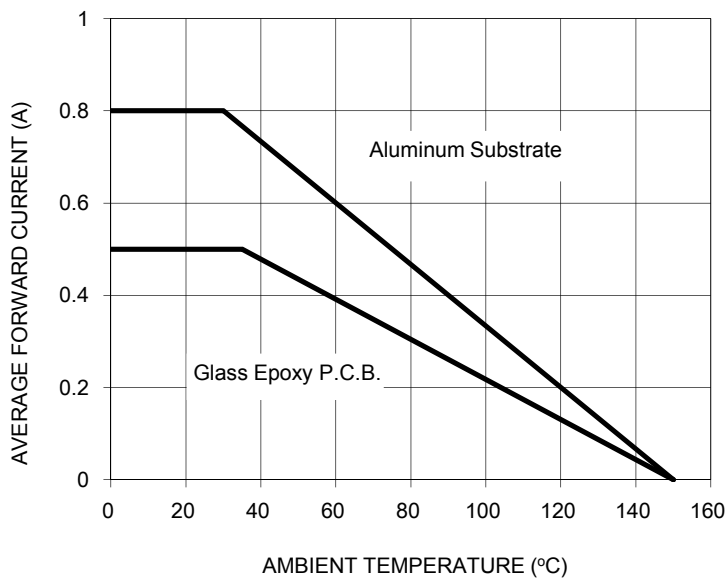


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

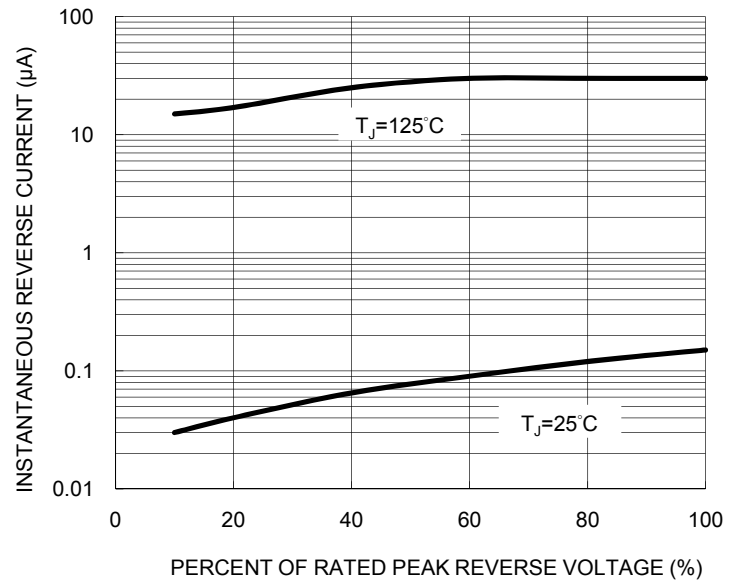


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

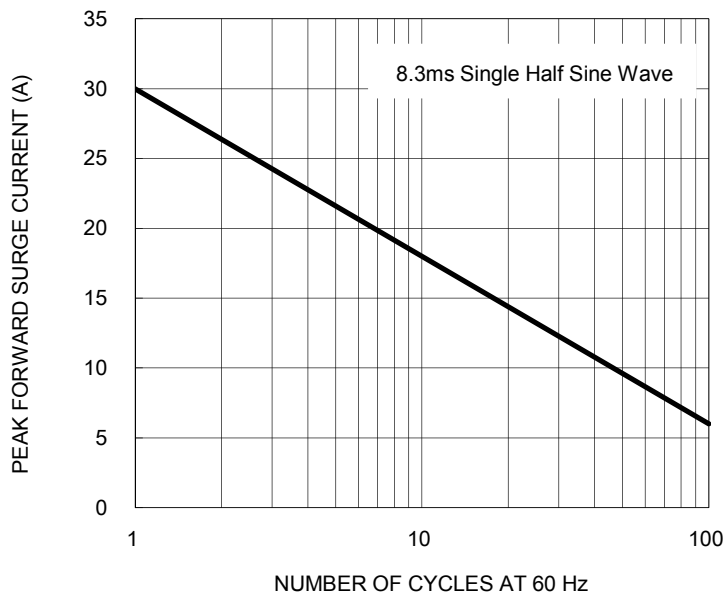
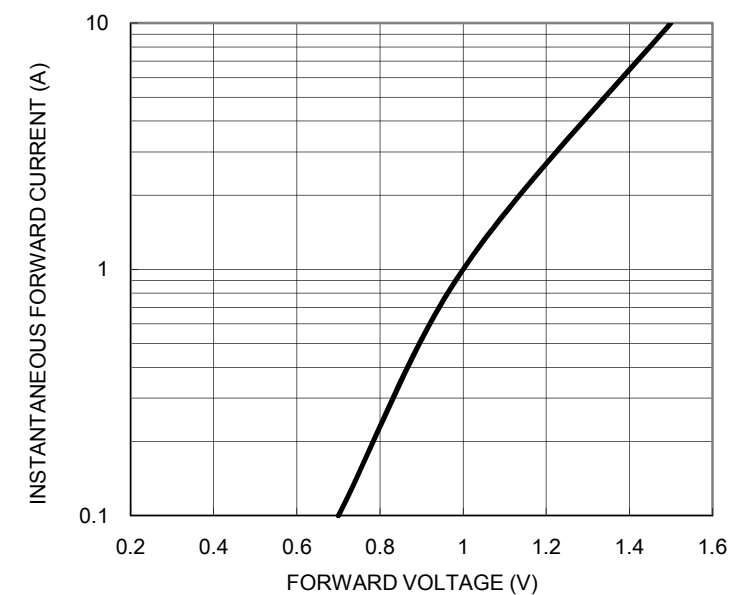
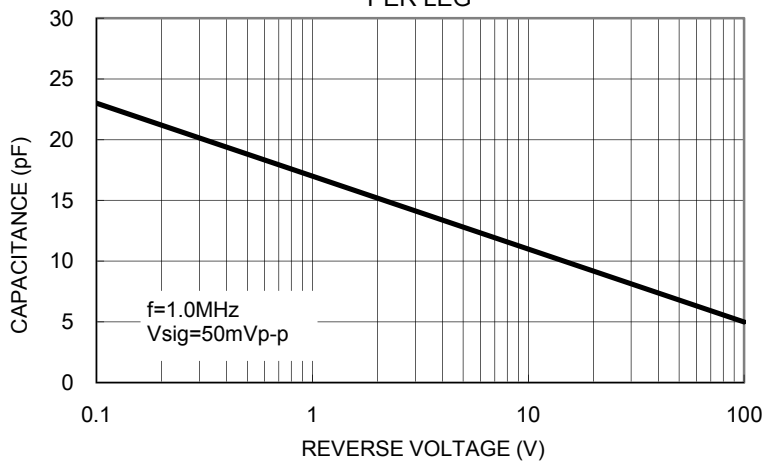


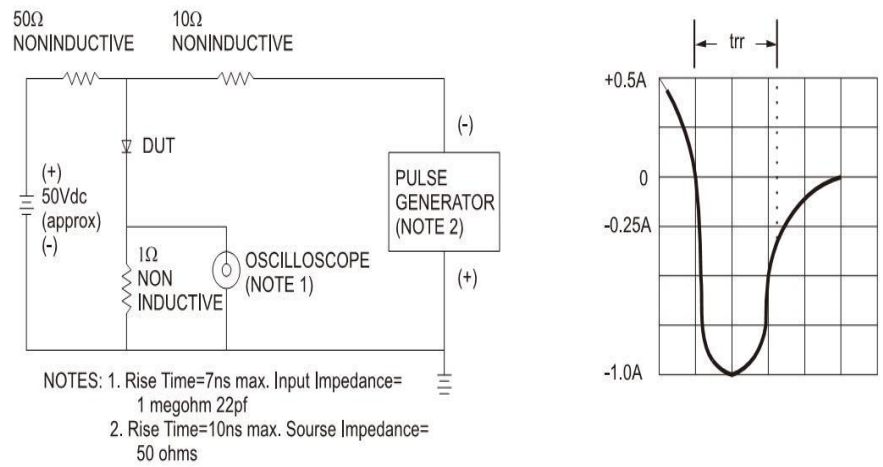
FIG. 4 TYPICAL FORWARD CHARACTERISTICS PER LEG



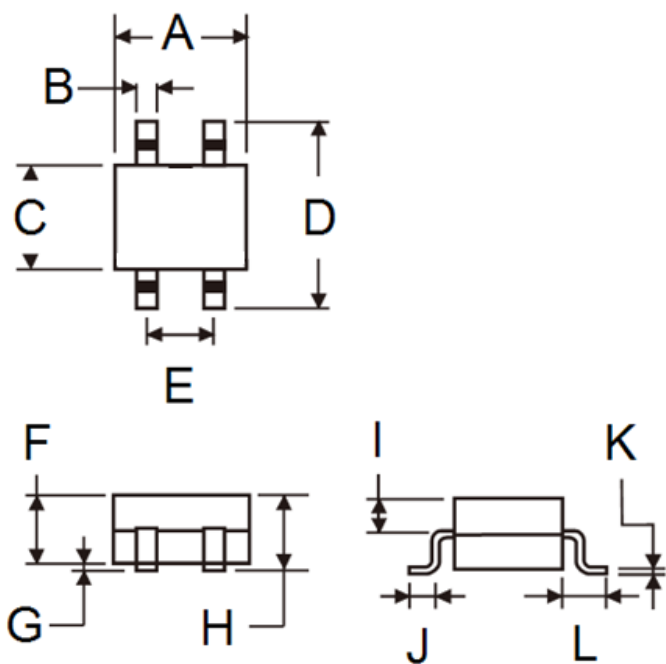
**FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

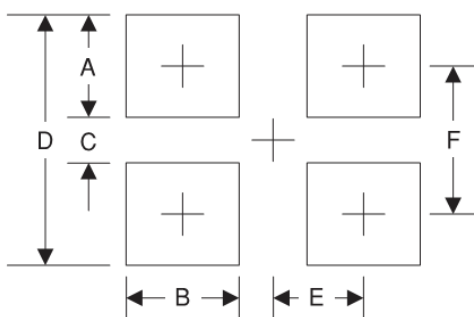


**PACKAGE OUTLINE DIMENSIONS**  
**TO-269AA (MBS)**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.50	4.90	0.177	0.193
B	0.56	0.84	0.022	0.033
C	3.60	5.00	0.142	0.197
D	-	6.90	-	0.272
E	2.20	2.60	0.087	0.102
F	2.30	2.70	0.091	0.106
G	-	0.20	-	0.008
H	-	2.90	-	0.114
I	0.95	1.53	0.037	0.060
J	0.70	1.10	0.028	0.043
K	0.15	0.35	0.006	0.014
L	1.10	2.12	0.043	0.083

**SUGGESTED PAD LAYOUT**



Symbol	Unit (mm)	Unit (inch)
A	1.7	0.067
B	0.9	0.035
C	4.4	0.173
D	8.1	0.319
E	1.3	0.051
F	6.3	0.248

**MARKING DIAGRAM**



P/N = Specific Device Code  
YW = Date Code  
F = Factory Code

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