

## **GLASS PASSIVATED FAST RECOVERY RECTIFIER**

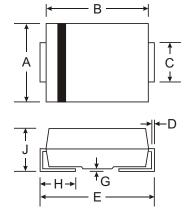
## **Features**

NOT RECOMMENDED FOR NEW DESIGNS, \_\_\_\_\_\_\_
PLEASE USE RS1AB - RS1MB

- For Surface Mounted Applications
- Capable of Meeting Environmental Standards of MIL-STD-19500
- Plastic Material UL Flammability Classification 94V-0
- High Reliability
- Submersible Temperature of 265 °C for 10 Seconds in Solder Bath
- Glass Passivated Junction

## **Mechanical Data**

- Case: SMB, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode BandApprox. Weight: 0.093 gramsMounting Position: Any



SMB							
Dim	Min	Max					
Α	3.30	3.94					
В	4.00	4.65					
С	1.95	2.21					
D	0.15	0.40					
E	5.00	6.00					
G	0.10	0.20					
Н	0.76	1.52					
J	2.00	2.62					
All Dimensions in mm							

## **Maximum Ratings and Electrical Characteristics**

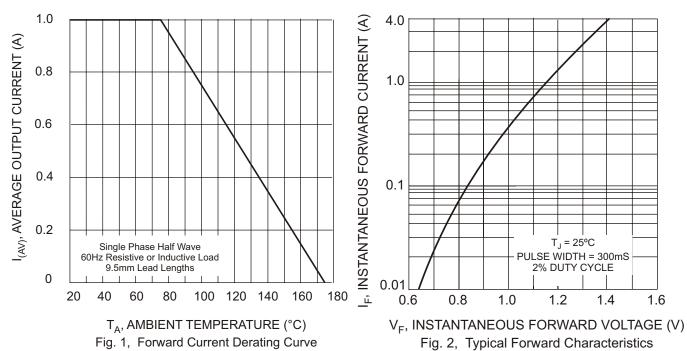
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load.

Characteristic		FR1A	FR1B	FR1D	FR1G	FR1J	FR1K	FR1M	Unit
Maximum Recurrent Peak Reverse Voltage		50	100	200	400	600	800	1000	V
Maximum RMS Voltage		35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T <sub>A</sub> = 75°C		1.0						Α	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		30						Α	
Maximum Instantaneous Forward Voltage at 1.0 A		1.3						V	
Maximum DC Reverse Current at Rated $@T_A = 25^{\circ}C$ DC Blocking Voltage $@T_A = 125^{\circ}C$		5.0 100						μА	
Maximum Full Load Reverse Current Full Cycle Average @ T <sub>A</sub> = 75°C		50						μА	
Maximum Reverse Recovery Time (See Note 1)		150			250	500	500	ns	
MaximumThermal Resistance (See Note 2)		30						°C/W	
Typical Junction Capacitance (See Note 3)		15						pF	
Operating and Storage Temperature Rating		-65 to +175						°C	

Notes:

- 1. Reverse Recovery Test Conditions: I  $_F$  = 0.5A, I $_R$  = 1A, I $_{RR}$  = 0.25A
- 2. Thermal Resistance from junction to lead with 6.0mm <sup>2</sup> copper pads
- 3. Measured at 1.0MHz and applied reverse voltage of 4.0V





100 (P) T<sub>J</sub> = 25°C TANCLION CAPACITANCE (PE) T<sub>J</sub> = 25°C TANCLION CAP

30 25 20 15 10 8.3ms SINGLE HALF SINE-WAVE JEDEC METHOD 5

NUMBER OF CYCLES @ 60Hz Fig. 4, Max Non-Repetitive Peak Forward Surge Current