



**RS1AB THRU RS1MB**  
SURFACE MOUNT FAST  
SWITCHING RECTIFIER

TECHNICAL  
SPECIFICATION

**VOLTAGE: 50 TO 1000V CURRENT: 1.0A**

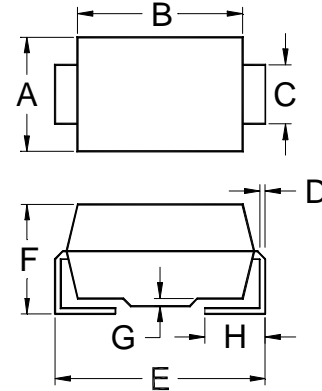
**FEATURES**

- Ideal for surface mount pick and place application
- Low profile package
- Built-in strain relief
- High surge capability
- Glass passivated chip
- Fast recovery for high efficiency
- High temperature soldering guaranteed: 260°C/10sec/at terminal

**MECHANICAL DATA**

- Terminal: Plated leads solderable per MIL-STD 202E, method 208C
- Case: Molded with UL-94 Class V-0 recognized flame retardant epoxy
- Polarity: Color band denotes cathode

**SMB/DO-214AA**



|      | A          | B          | C           | D           |
|------|------------|------------|-------------|-------------|
| MAX. | .155(3.94) | .180(4.57) | .083(2.11)  | .012(0.305) |
| MIN. | .130(3.30) | .160(4.06) | .077(1.96)  | .006(0.152) |
|      | E          | F          | G           | H           |
| MAX. | .220(5.59) | .096(2.44) | .008(0.203) | .060(1.52)  |
| MIN. | .205(5.21) | .084(2.13) | .004(0.102) | .030(0.76)  |

Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(Single-phase, half-wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

| RATINGS                                                                                                             | SYMBOL         | RS1 AB      | RS1 BB | RS1 DB | RS1 GB | RS1 JB | RS1 KB | RS1 MB | UNITS                          |
|---------------------------------------------------------------------------------------------------------------------|----------------|-------------|--------|--------|--------|--------|--------|--------|--------------------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                             | $V_{RRM}$      | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                              |
| Maximum RMS Voltage                                                                                                 | $V_{RMS}$      | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V                              |
| Maximum DC Blocking Voltage                                                                                         | $V_{DC}$       | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                              |
| Maximum Average Forward Rectified Current ( $T_L=110^\circ\text{C}$ )                                               | $I_{F(AV)}$    | 1.0         |        |        |        |        |        |        | A                              |
| Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)                                 | $I_{FSM}$      | 30          |        |        |        |        |        |        | A                              |
| Maximum Instantaneous Forward Voltage (at rated forward current)                                                    | $V_F$          | 1.3         |        |        |        |        |        |        | V                              |
| Maximum DC Reverse Current ( $T_a=25^\circ\text{C}$ )<br>(at rated DC blocking voltage) ( $T_a=125^\circ\text{C}$ ) | $I_R$          | 5.0<br>200  |        |        |        |        |        |        | $\mu\text{A}$<br>$\mu\text{A}$ |
| Maximum Reverse Recovery Time (Note 1)                                                                              | trr            | 150         |        |        |        | 250    | 500    |        | nS                             |
| Typical Junction Capacitance (Note 2)                                                                               | $C_J$          | 15          |        |        |        |        |        |        | pF                             |
| Typical Thermal Resistance (Note 3)                                                                                 | $R_\theta(ja)$ | 30          |        |        |        |        |        |        | $^\circ\text{C/W}$             |
| Storage and Operation Junction Temperature                                                                          | $T_{STG}, T_J$ | -50 to +150 |        |        |        |        |        |        | $^\circ\text{C}$               |

Note:

- 1.Reverse recovery condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$ .
- 2.Measured at 1.0 MHz and applied voltage of  $4.0V_{dc}$
- 3.Thermal resistance from junction to terminal mounted on 5x5mm copper pad area