

## RS1A THRU RS1M

### Features

- Fast switching for high efficiency
- Low Power Loss, High Efficiency
- High current capability
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

### Mechanical Data

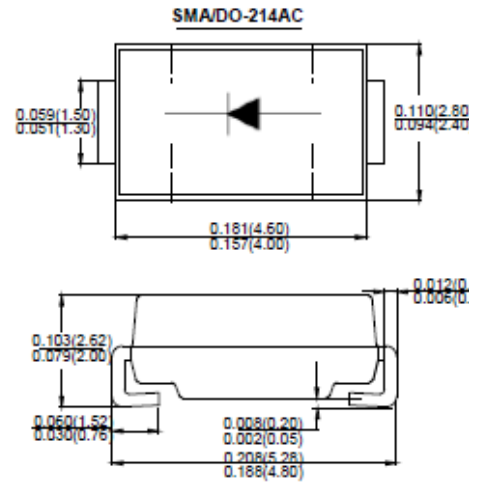
**Case:** molded plastic SMA/DO-214AC

**Terminals:** Solder plated, solderable per MIL-STD-750,  
Method 2026 guaranteed

**Polarity:** Color band denotes cathode end

**Mounting position:** Any

**Making:** Type Number



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load, derate current by 20%

| Type Number   | SYMBOL      | RS1A        | RS1B | RS1D | RS1G | RS1J | RS1K | RS1M | Unit             |
|---|-------------|-------------|------|------|------|------|------|------|------------------|
| Maximum Recurrent 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                |
| Average Rectified Output Current @ $T_L=75^\circ\text{C}$   | $I_{F(AV)}$ | 1.0         |      |      |      |      |      |      | A                |
| Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)        | $I_{FSM}$   | 30          |      |      |      |      |      |      | A                |
| Forward Voltage @ $I_F=1.0\text{A}$   | $V_{FM}$    | 1.3         |      |      |      |      |      |      | V                |
| Peak Reverse Current @ $T_A=25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ | $I_R$       | 5.0<br>100  |      |      |      |      |      |      | $\mu\text{A}$    |
| Maximum Reverse Recovery Time (Note 1)  | $T_{rr}$    | 150         |      |      |      | 250  | 500  | ns   |                  |
| Operating Temperature Range   | $T_J$       | -55 to +150 |      |      |      |      |      |      | $^\circ\text{C}$ |
| Storage Temperature Range   | $T_{STG}$   | -55 to +150 |      |      |      |      |      |      | $^\circ\text{C}$ |

Note: 1.Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $IRR=0.25\text{A}$

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### Characteristic Curves

Fig. 1 - Forward Current Derating Curve

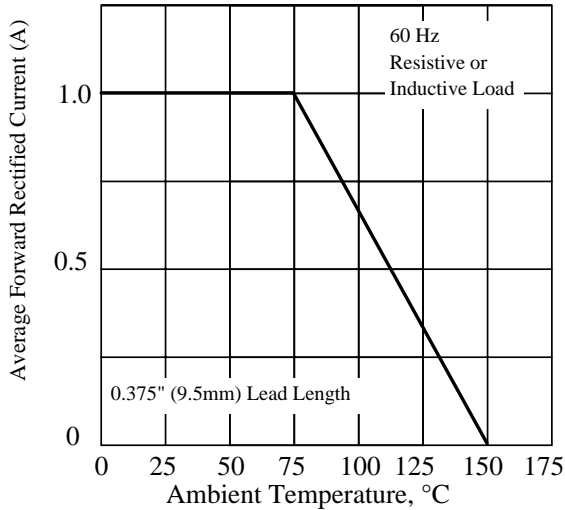


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

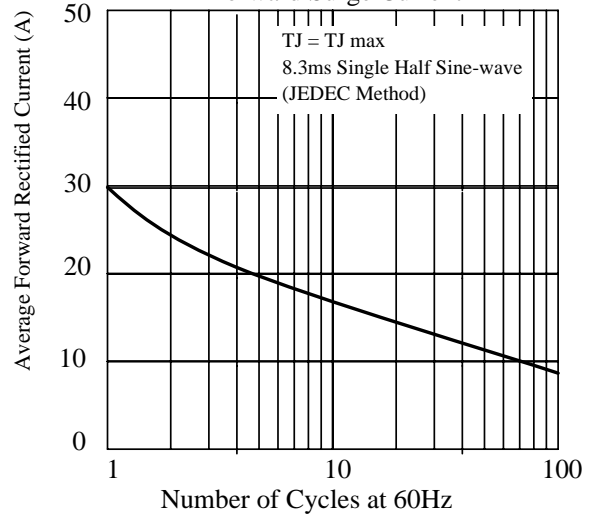


Fig. 3 - Typical Instantaneous Forward Characteristics

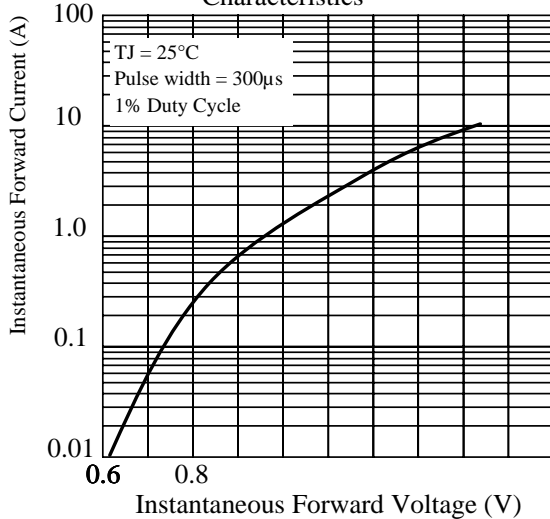


Fig. 4 - Typical Reverse Characteristics

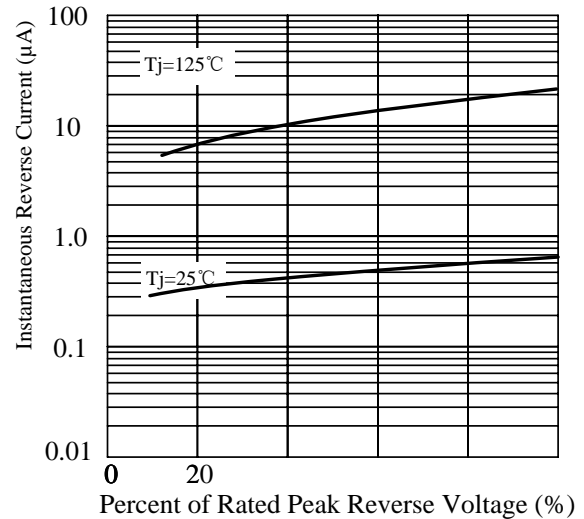


Fig. 5 - typical transient thermal impedance

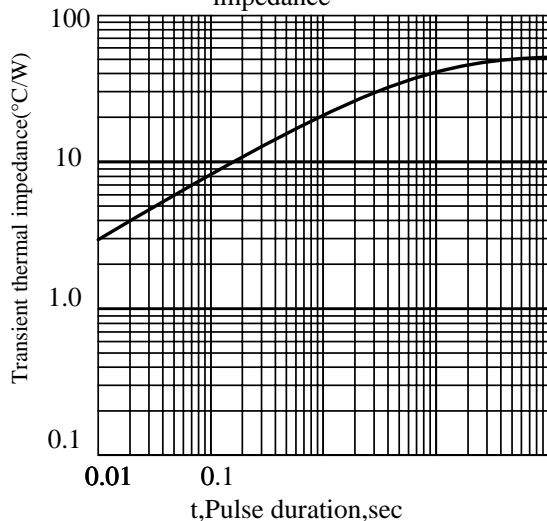


Fig. 6 - Typical Junction Capacitance

