



S1A THRU S1M
SURFACE MOUNT GLASS
PASSIVATED RECTIFIER

TECHNICAL
SPECIFICATION

VOLTAGE: 50 TO 1000V CURRENT: 1.0A

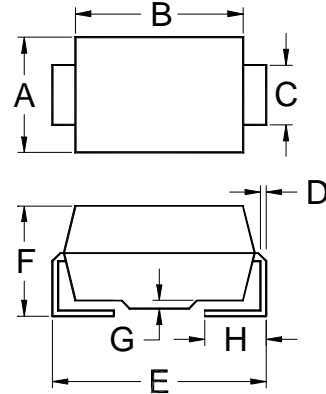
FEATURES

- Ideal for surface mount pick and place application
- Low profile package
- Built-in strain relief
- High surge capability
- 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-O recognized flame retardant epoxy
- Polarity: Color band denotes cathode

SMA/DO-214AC



| | A | B | C | D |
|------|------------|------------|-------------|-------------|
| MAX. | .110(2.79) | .177(4.50) | .058(1.47) | .012(0.305) |
| MIN. | .100(2.54) | .157(3.99) | .052(1.32) | .006(0.152) |
| | E | F | G | H |
| MAX. | .208(5.28) | .090(2.29) | .008(0.203) | .060(1.52) |
| MIN. | .194(4.93) | .078(1.98) | .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 | S1A | S1B | S1D | S1G | S1J | S1K | S1M | 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 ($T_L=100^\circ\text{C}$) | $I_{F(AV)}$ | 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 | 1.1 | | | | | | | V |
| Maximum DC Reverse Current ($T_a=25^\circ\text{C}$ at rated DC blocking voltage) ($T_a=125^\circ\text{C}$) | I_R | 5.0 200 | | | | | | | μA μA |
| Typical Junction Capacitance (Note 1) | C_J | 15 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_\theta(ja)$ | 30 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Storage and Operation Junction Temperature | T_{STG}, T_J | -65 to +150 | | | | | | | $^\circ\text{C}$ |

Note:

1. Measured at 1.0 MHz and applied voltage of $4.0V_{dc}$
2. Thermal resistance from junction to terminal mounted on 5x5mm copper pad area