

# S1A THRU S1M

## SURFACE MOUNT SILICON RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 1.0A

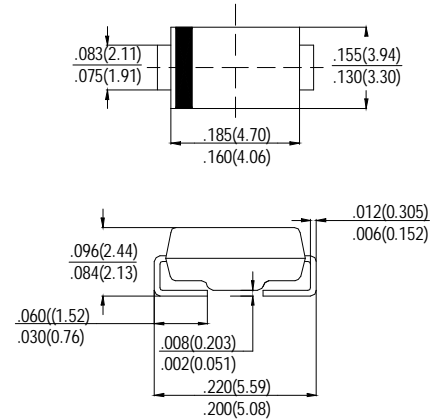
### FEATURES

- Ideal for surface mounted applications
- Low leakage current
- Glass passivated junction

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Terminals:** Solder plated, solderable per MIL-STD- 750, Method 2026
- **Polarity:** As marked
- **Mounting position:** Any
- **Weight:** 0.093 grams

### SMB (DO-214AA)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

	SYMBOL	S1A	S1B	S1D	S1G	S1J	S1K	S1M	units
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
Maximum Average Forward rectified Current at $T_A=75^\circ\text{C}$	$I_o$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	30							A
Maximum forward Voltage at 1.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ\text{C}$	5.0							$\mu\text{A}$
	@ $T_A=125^\circ\text{C}$	100							
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	12							$^\circ\text{C/W}$
Typical Junction Capacitance (Note1)	$C_J$	30							pF

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts  
 2. Thermal Resistance (Junction to Ambient),  $.02 \times 0.2 \text{in}^2$  ( $5 \times 5 \text{mm}^2$ ) copper pads to each terminal