

S3A THRU S3M

SURFACE MOUNT SILICON RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 3.0A

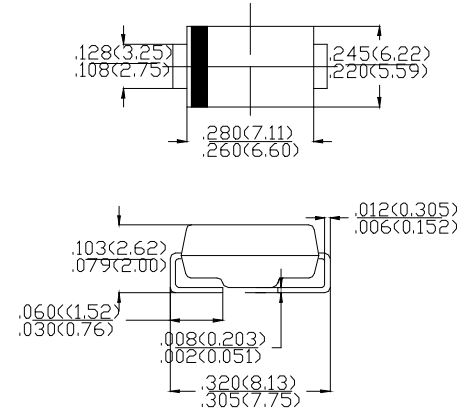
FEATURES

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

MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 0.24 grams

SMC (DO-214AB)



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	S3A	S3B	S3D	S3G	S3J	S3K	S3M	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	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	100							A
Maximum forward Voltage at 3.0A DC	V_F	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ\text{C}$	10.0							μA
	@ $T_A=125^\circ\text{C}$	250							
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	10							$^\circ\text{C/W}$
Typical Junction Capacitance (Note1)	C_J	60							pF
Operation and Storage Temperature Range	T_{STG}, T_J	-65 to +175							$^\circ\text{C}$

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance (Junction to Ambient), $.0.4 \times 0.4 \text{in}^2$ ($10 \times 10 \text{mm}^2$) copper pads to each terminal