



# S2A THRU S2M

## 1.5 AMPS. SURFACE MOUNT RECTIFIERS



### FEATURES

- \* For surface mounted application
- \* Glass passivated junction
- \* Low forward voltage drop
- \* High current capability
- \* Easy pick and place
- \* High surge current capability
- \* Plastic material used carries Underwriters Laboratory classification 94V-0

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Terminals: Solder plated
- \* Polarity: Indicated by cathode band
- \* Packaging: 12mm tape per EIA STD RS-481
- \* Weight: 0.1 gram

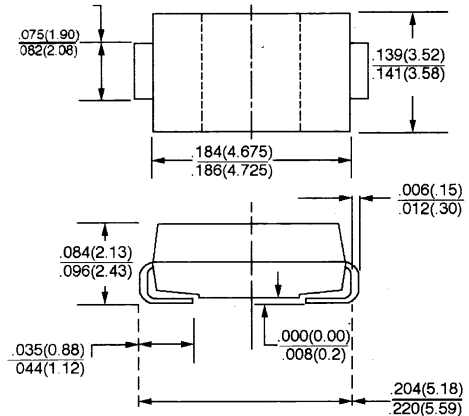
### VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.5 Amperes

### SMB/DO-214AA



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%

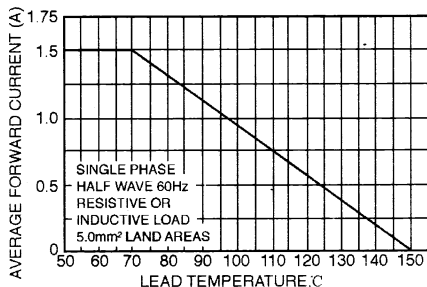
TYPE NUMBER	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_L = 70^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3ms single half sine - Wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	50							A
Maximum Instantaneous Forward Voltage @ 1.5A	$V_F$	1.15							V
Maximum D. C Reverse Current @ $T_a = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_a = 125^\circ\text{C}$	$I_R$	5.0 125							$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	2.0							$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_J$	30							pF
Operating Temperature Range	$T_J$	-65 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$

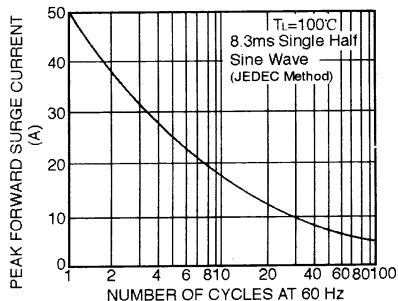
2. Measured at 1 MHz and applied  $V_R = 4.0$  volts.

## RATINGS AND CHARACTERISTIC CURVES (S2A THRU S2M)

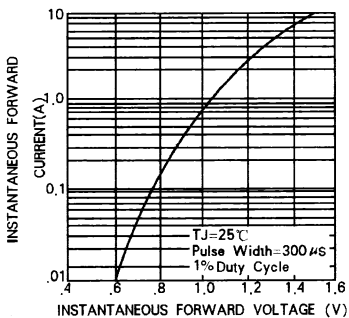
**FIG. 1 – FORWARD CURRENT DERATING CURVE**



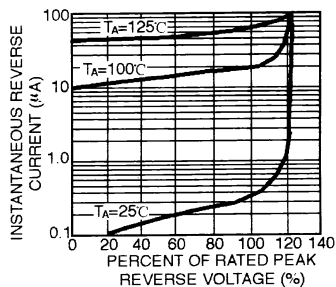
**FIG. 2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 5 – TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 – TYPICAL JUNCTION CAPACITANCE**

