

# S2A THRU S2M

## 2.0 AMP SURFACE MOUNT PASSIVATED RECTIFIERS

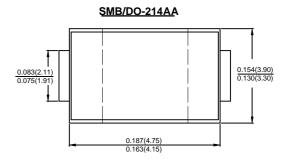
### **Features**

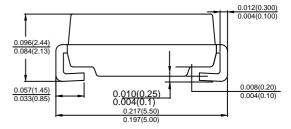
- · Glass Passivated Die Construction
- · Low forward voltage drop
- · High current capability
- · High reliability
- · Metal silicon junction, majority carrier conduction
- Plastic Case Material has UL Flammability

Classication Rating 94V-0

### **Mechanical Data**

- · Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- · Polarity: Color band dentes 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	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T =100°C	lf(AV)	2.0							Α
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	60							Α
Forward Voltage @IF=2.0A	V <sub>FM</sub>	1.0							V
Peak Reverse Current @T <sub>A</sub> =25 °C		5.0 100							uA
At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	l <sub>R</sub>								
I <sup>2</sup> t Rating for fusing (t <8.3ms)	I <sup>2</sup> t	14.94							A <sup>2</sup> s
Typical Junction Capacitance (Note 1)	Сл	30							pF
Typical Thermal Resistance Junction to Ambient(Note 2)	Re JA	50							°C/W
Operating Temperature Range	TJ	-55 to+150							${\mathbb C}$
Storage Temperature Range	Тѕтс	-55 to +150							$^{\circ}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length.

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FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

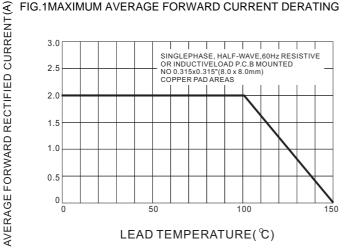
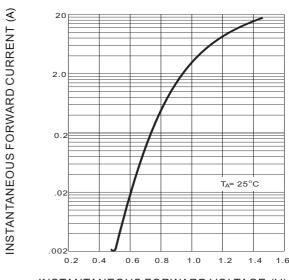


FIG.2TYPICAL FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE (V)

#### FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

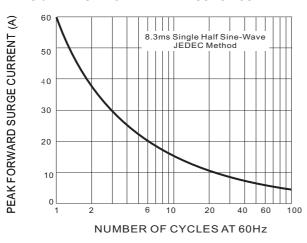


Fig. 4 T ypical Reverse Characteristics (per element)

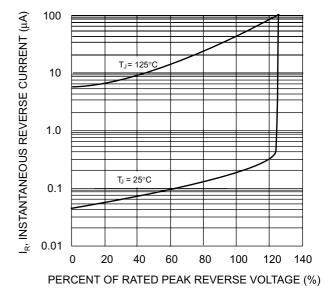
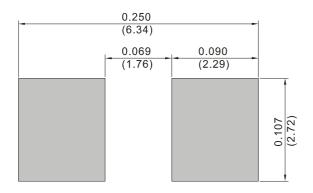


FIG.5 MOUNTING PAD LAYOUT





## **S2A THRU S2M**

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