

S1A THRU S1M

1.0 AMP SURFACE MOUNT PASSIVATED RECTIFIERS

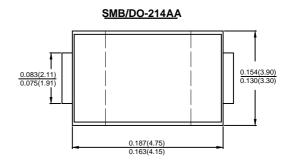
Features

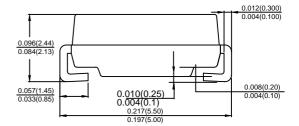
- · Glass Passivated Die Construction
- · Low forward voltage drop
- · High current capability
- · High reliability
- Metal silicon junction, majority carrier conduction
- * Plastic Case Material has UL Flammability

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	S1A	S1B	S1D	S1G	S1J	S1K	S1M	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	V _{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T∟=100°C	I F(AV)	1.0							Α
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Α
Forward Voltage @IF=1.0A	V _{FM}	1.0							V
Peak Reverse Current @T _A =25°C		5.0 100							uA
At Rated DC Blocking Voltage @TA =125°C	l _R								
I ² t Rating for fusing (t <8.3ms)	I ² t	3.7							A ² s
Typical Junction Capacitance (Note 1)	Сл	12							рF
Typical Thermal Resistance Junction to Ambient(Note 2)	R⊕ JL	30							°C/W
Operating Temperature Range	TJ	-55 to+150							$^{\circ}$
Storage Temperature Range	Tstg	-55 to +150							$^{\circ}$

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

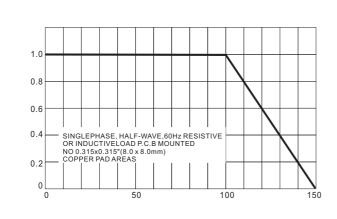
2.Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

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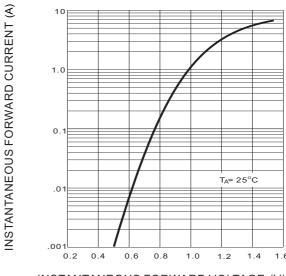
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FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING AVERAGE FORWARD RECTIFIED CURRENT(A)



LEAD TEMPERATURE(℃)

FIG.2TYPICAL FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE (V)

FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

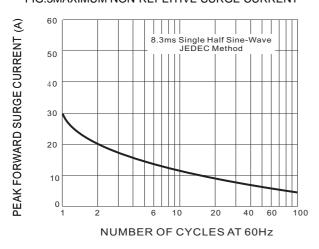


Fig. 4 Typical Reverse Characteristics (per element)

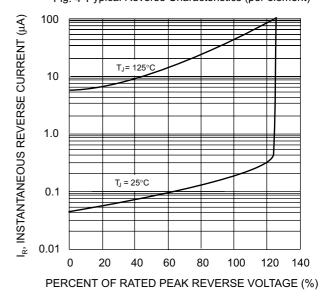
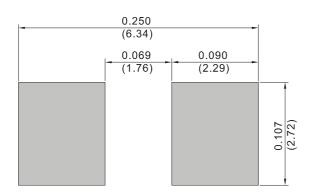


FIG.5 MOUNTING PAD LAYOUT





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