

# S1A THRU S1M

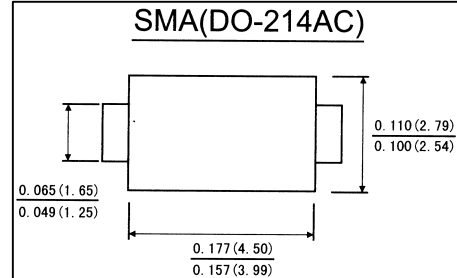
## SURFACE MOUNT GALSS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0Ampere

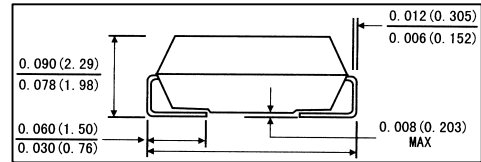
### FEATURES

- . For surface mounted applications
- . Glass passivated junction
- . Low profile package
- . Built-in strain relief , ideal for automated placement
- . Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- . High temperature soldering guaranteed: 250°C/10 seconds, at terminals



### MECHANICAL DATA

- . **Case:** JEDEC SMA(DO-214AC) molded plastic
- . **Terminals:** Plated axial leads,solderable per MIL-STD-750,method 2026
- . **Polarity:** Color band denotes cathode end
- . **Mounting Position:** Any
- . **Weight:** 0.002 ounce, 0.064 gram



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%)

	Symbols	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Units
Maximum Recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current (See fig.1)	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current (8.3ms half sing wave superimposed on rated load (JEDEC method)T <sub>L</sub> =110°C	I <sub>FSM</sub>	40.0			30.0			Amps	
Maximum instantaneous forward voltage at 1.0 A	V <sub>F</sub>	1.1							Volts
Maximum reverse recovery time(Note 1) current at rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	1.0			5.0			μ A
		T <sub>A</sub> =125°C	50						
Typical Thermal Resistance( Note 1)	R <sub>θ</sub> <sub>JL</sub>	27.0			30.0			°C/W	
	R <sub>θ</sub> <sub>JA</sub>	25.0			85.0				
Typical reverse recovery time(Note 2)	T <sub>rr</sub>	1.8							μ S
Operating and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150							°C

**Notes:** 1. Thermal resistance from junction to ambient and from junction to lead mounted on 0.2 X 0.2"(5.0 X 5.0mm) copper pad areas.

2. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A.

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## RATINGS AND CHARACTERISTIC CURVES S1A THRU S1M

FLG.1-FORWARD CURRENT

DERATING CURVE

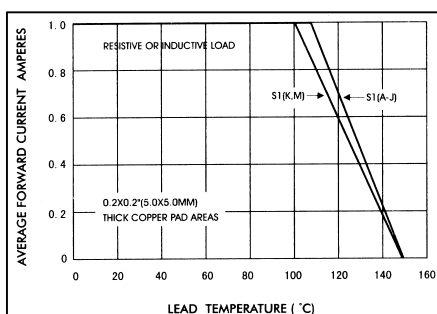


FIG.2-TYPICAL REVERSE CHARACTERISTICS

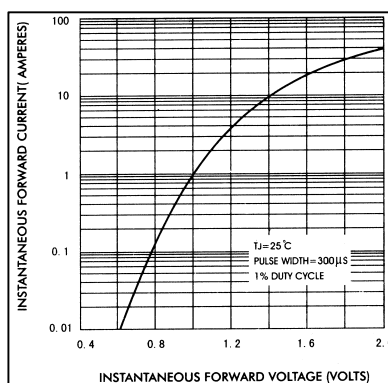


FIG.4-TYPICAL REVERSE CHARACTERISTICS

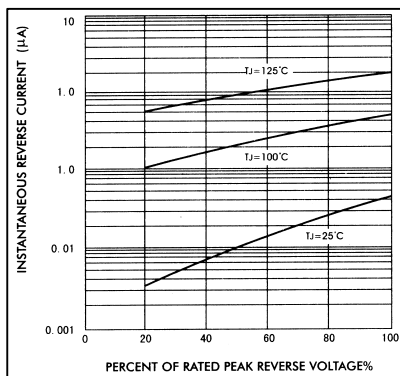


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

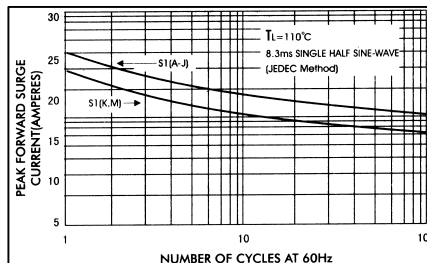


FIG.5-TYPICAL JUNCTION CAPACITANCE

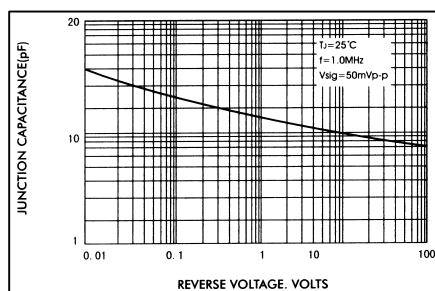


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

