# **CE** CHENYI ELECTRONICS

# S1A THRU S1M

## SURFACE MOUNT GALSS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

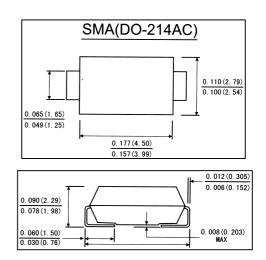
Forward Current - 1.0Ampere

# 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	Vrrm	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	Vrms	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current (See fig.1)	l(AV)				1.0				Amp
Peak forward surge current (8.3ms half sing wave superimposed on rated load (JEDEC method)TL=110°C	Ifsm	40.0			30.0				Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.1					Volts		
Maximum reverse recovery time(Note 1) $T_A=25^{\circ}C$ current at rated DC Blocking Voltage $T_A=125^{\circ}C$	I <sub>R</sub>	1.0 5.0 50					μΑ		
Typical Thermal Resistance( Note 1)	Rθ <sub>JL</sub> Rθ <sub>JA</sub>	27.0 25.0			30.0 85.0			°C/W	
Typical reverse recovery time(Note 2)	Trr	1.8					μs		
Operating and storage temperature range	Тј Тѕтс	-65 to +150						ĉ	

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:IF=0.5A,IR=1.0A,Irr=0.25A.



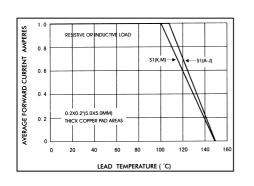
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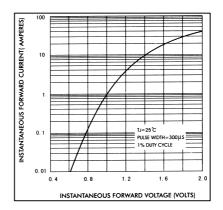
Forward Current - 1.0Ampere

# **RATINGS AND CHARACTERISTIC CURVES S1A THRU S1M**

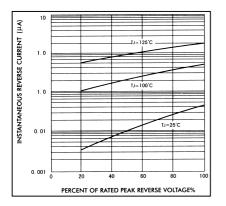
### FLG.1-FORWARD CURRENT DERATING CURVE



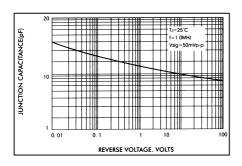
### FIG.2-TYPICAL REVERSE CHARACTERISTICS



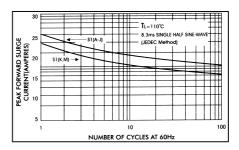
### FIG.4-TYPICAL REVERSE CHARACTERISTICS



### FIG.5-TYPICAL JUNCTION CAPACITANCE



### FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



### FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

