S2A THRU S2M

# SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

### **FEATURES:**

- For surface mounted applications
- Low profile package
- Built-in stain relief
- Easy pick and place
- Flammability Classification
- High temperature soldering: 250°C /10 second at terminals

## MECHANICAL DATA

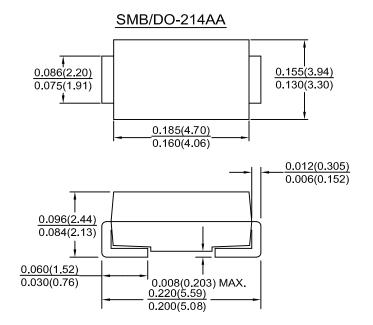
Case: JEDEC DO-214AA molded plastic Terminals: Solder plated solderable per

MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard Packaging: Any

Welght: 0.003 ounces, 0.093 grams



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

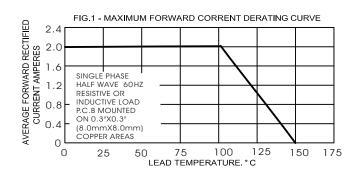
Characteristic	Symbol	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Units
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T $_L\!=\!100^{\circ}\!\mathrm{C}$	lo	2.0							Amps
Peak forward surge current, 8.3ms single half sine-wave auperimposed on rated load (JEDEC Methed)	I FSM	50							Amps
Maximum instantaneous forward voltage drop per leg at 2.0A	v <sub>F</sub>	1.1						Volts	
Maximum DC reverse current $Ta=25^{\circ}C$ at rated DC blocking voltage $Ta=125^{\circ}C$	I <sub>R</sub>	5.0 125							μ Α
Typical junction Capacitance (NOTE 2)	င၂	30						PF	
Maximum reverse recovery time(NOTE 1)	TRR	2.5						μs	
Typical thermal resistance (NOTE 3)	Rth JL	16							°C/W
Operating Junction and storage temperature range	T <sub>J</sub> , Tstg		-55 to+150						

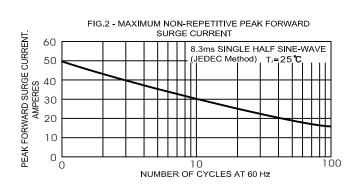
### NOTE :

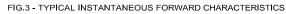
- 1. Reverse recovery test connditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$
- 2. Measured at 1 MHZ and applied reverse voltage of 4.0 volTS
- 3..Thermal resistance from junction to lead mounted on 0.2 x 0.2"(5.0mm x 5.0mm)

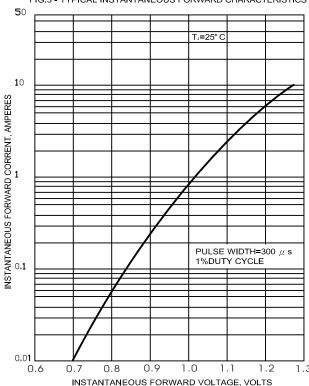
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# RATINGS AND CHARACTERISTIC CURVES

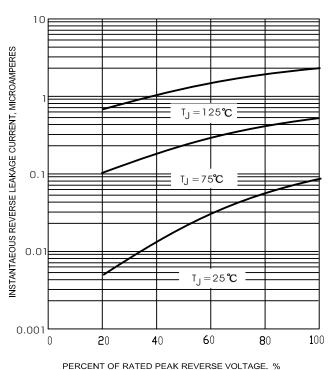




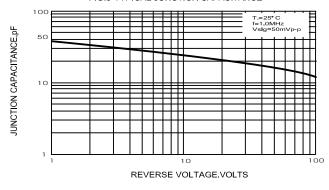




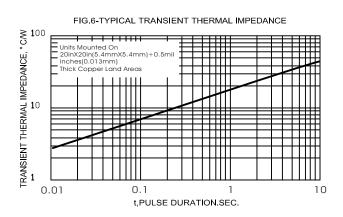
#### FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



#### FIG.5-TYPICAL JUNCTION CAPACITANCE



#### PERCENT OF RATED PEAK REVERSE VOLTAGE. %



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