



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

S2A  
THRU  
S2M

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts**

**CURRENT 2.0 Ampere**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction

**MECHANICAL DATA**

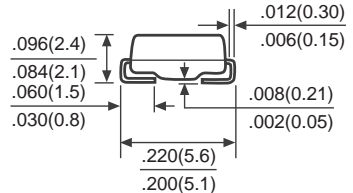
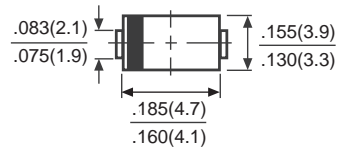
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.093 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



SMB(DO-214AA)



Dimensions in inches and (millimeters)

	SYMBOL	S2A	S2B	S2D	S2G	S2J	S2K	S2M	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 at T <sub>A</sub> = 55°C	I <sub>O</sub>	2.0							Amps
Peak Forward Surge Current I <sub>FM</sub> (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60							Amps
Maximum Forward Voltage at 1.0A DC	V <sub>F</sub>					1.1			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@ T <sub>A</sub> = 25°C				5.0			uAmps
		@ T <sub>A</sub> = 125°C				100			
Maximum Reverse Recovery Time (Note 3)	t <sub>rr</sub>					2.5			uSec
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>					20			°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>					30			pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>					-65 to + 175		°C	

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 2. Thermal Resistance (Junction to Ambient), .0.2x0.2in<sup>2</sup> (5x5mm<sup>2</sup>) copper pads to each terminal.  
 3. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

# RATING AND CHARACTERISTIC CURVES (S2A THRU S2M)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

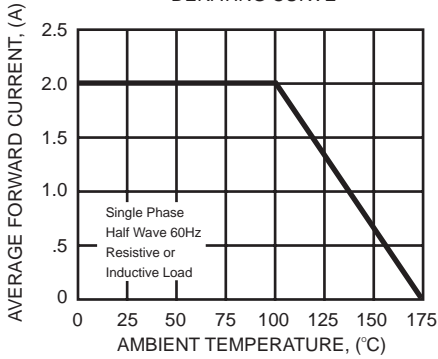


FIG. 2 - MAXIMUM NON-REPETITIVE FOREARD SURGE CURRENT

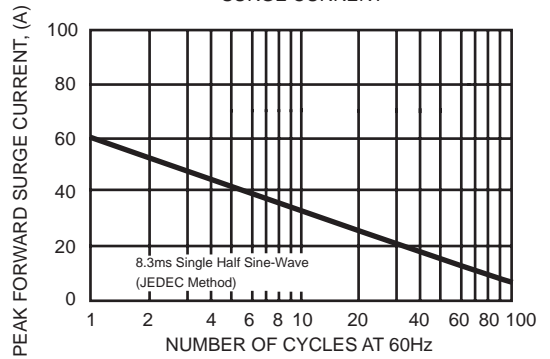


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

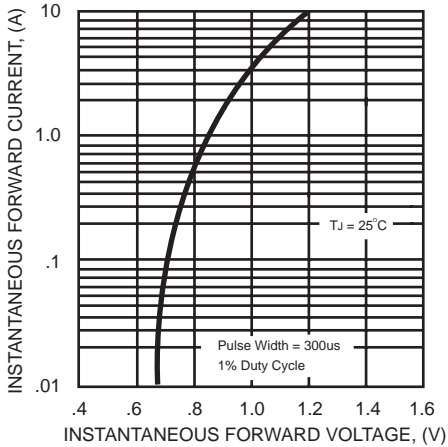


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

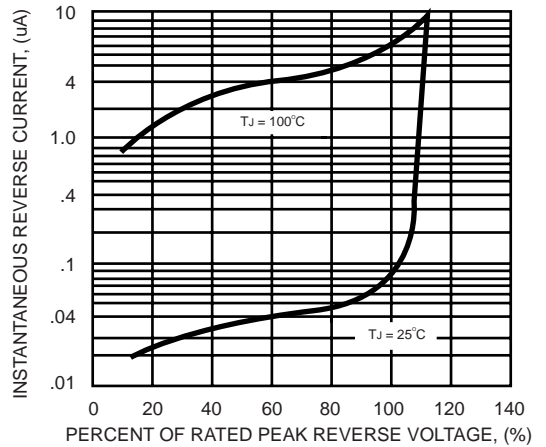
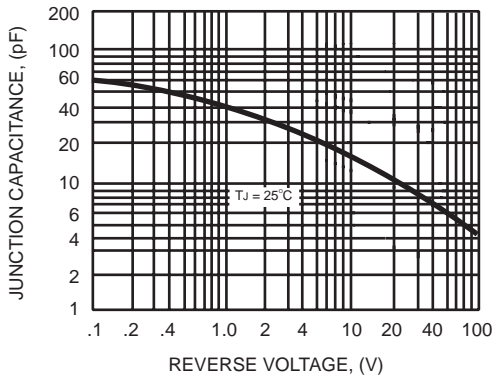


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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