

## S1A THRU S1M

**SURFACE MOUNT RECTIFIER**  
**VOLTAGE - 50 - 1000 Volts    CURRENT - 1.0 Ampere**

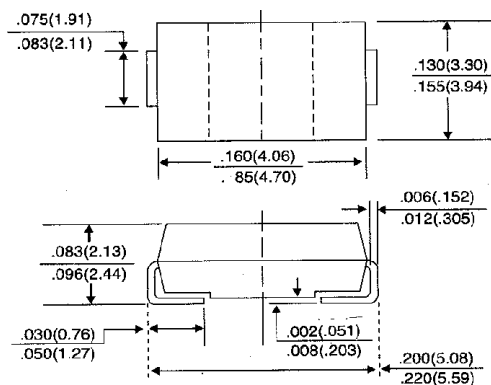
### FEATURES

- For surface mounted applications
  - High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
  - Glass passivated junction
  - Built-in strain relief
  - Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
  - Complete device submersible temperature of 260°C for 10 seconds in solder bath

### 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: 12mm tape (EIA-481)  
 Weight: 0.003 ounces, 0.093 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

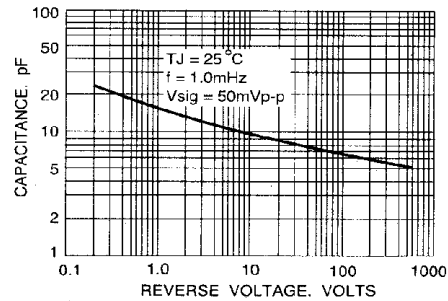
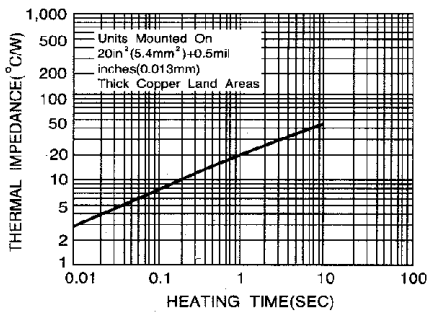
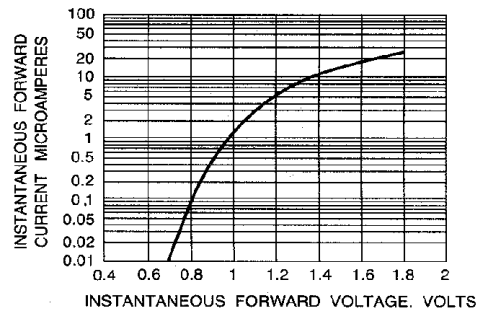
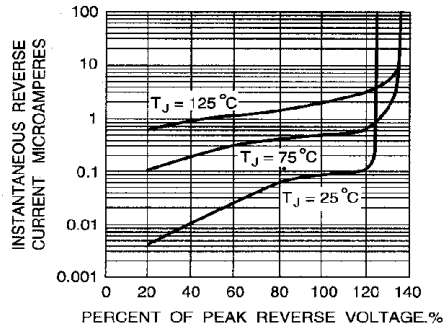
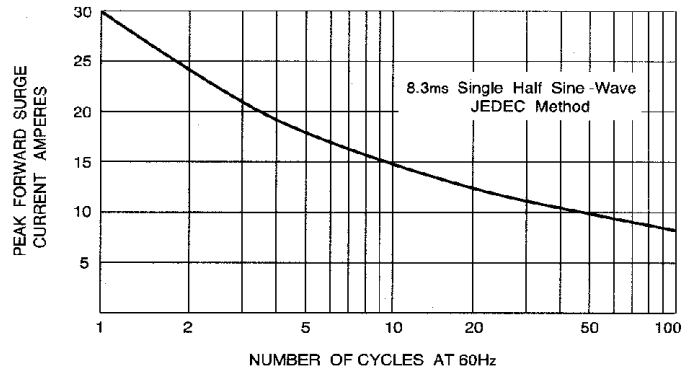
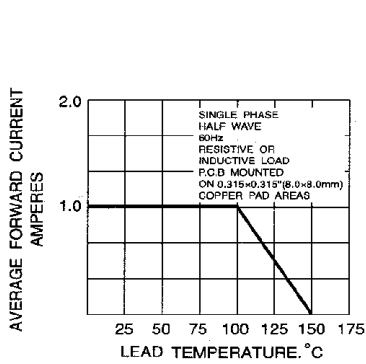
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

	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 at T <sub>L</sub> = 100°C	I <sub>(AV)</sub>	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V <sub>F</sub>	1.10							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	I <sub>R</sub>	5.0 50							μA
Maximum Reverse Recovery Time (NOTE 1)	T <sub>RR</sub>	2.5							μS
Typical Junction Capacitance (NOTE 2)	C <sub>J</sub>	12							pf
Maximum Thermal Resistance (NOTE 3)	R <sub>ΘJL</sub>	30.0							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

#### NOTES:

1. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.
2. Measured at 1.0 MHz and Applied V<sub>r</sub> = 4.0 volts.
3. 8.0mm<sup>2</sup> (.013mm thick) land areas.

**RATING AND CHARACTERISTIC CURVES  
S1A THRU S1M**



This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.