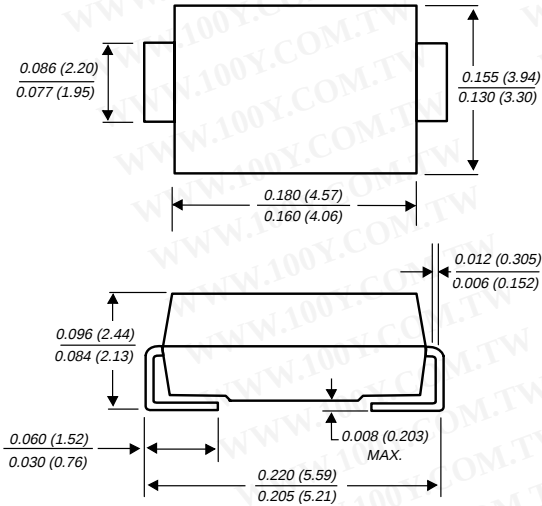


# S2A THRU S2M

## SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5 Amperes

### DO-214AA MODIFIED J-BEND



Dimensions in inches and (millimeters)

### FEATURES

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



### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body over passivated chip

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Weight:** 0.003 ounce, 0.093 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

|                                                                                                                              | SYMBOLS                              | S2A          | S2B | S2D | S2G | S2J | S2K | S2M  | UNITS |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------|-----|-----|-----|-----|-----|------|-------|
| Device marking code                                                                                                          |                                      | SA           | SB  | SD  | SG  | SJ  | SK  | SM   |       |
| Maximum repetitive peak reverse voltage                                                                                      | VRRM                                 | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage                                                                                                          | VRRMS                                | 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 at T <sub>L</sub> =100°C                                                           | I <sub>AV</sub>                      | 1.5          |     |     |     |     |     |      | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) T <sub>L</sub> =100°C | I <sub>FSM</sub>                     | 50.0         |     |     |     |     |     |      | Amps  |
| Maximum instantaneous forward voltage at 1.5 A                                                                               | V <sub>F</sub>                       | 1.15         |     |     |     |     |     |      | Volts |
| Maximum DC reverse current<br>T <sub>A</sub> =25°C<br>at Rated DC blocking voltage<br>T <sub>A</sub> =125°C                  | I <sub>R</sub>                       | 1.0<br>125.0 |     |     |     |     |     |      | μA    |
| Typical reverse recovery time (NOTE 1)                                                                                       | t <sub>rr</sub>                      | 2.0          |     |     |     |     |     |      | μs    |
| Typical junction capacitance (NOTE 2)                                                                                        | C <sub>J</sub>                       | 30.0         |     |     |     |     |     |      | pF    |
| Typical thermal resistance (NOTE 3)                                                                                          | R <sub>θJA</sub><br>R <sub>θJL</sub> | 53.0<br>16.0 |     |     |     |     |     |      | °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 reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and junction to lead  
P.C.B. mounted on 0.27 x 0.27" (7.0 x 7.0mm) copper pad areas

## RATINGS AND CHARACTERISTIC CURVES S2A THRU S2M

FIG. 1 - FORWARD CURRENT DERATING CURVE

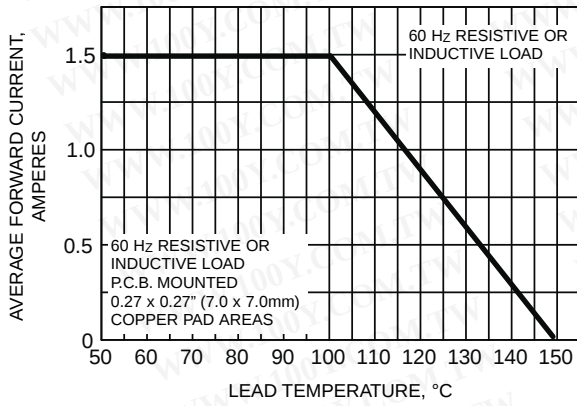


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

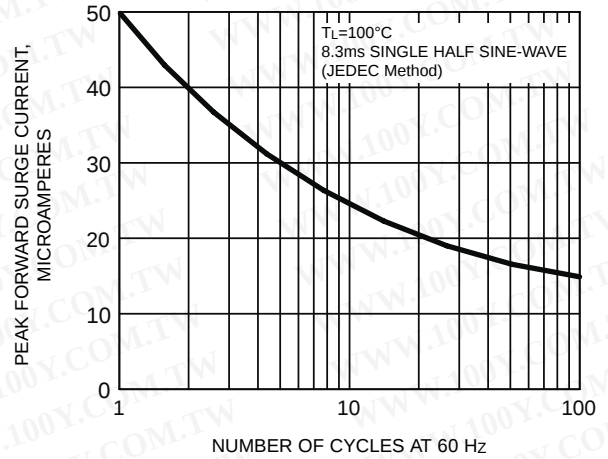


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

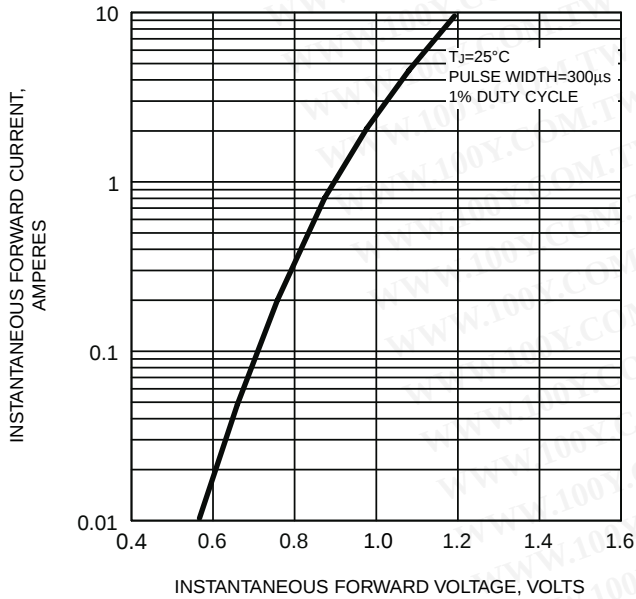


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

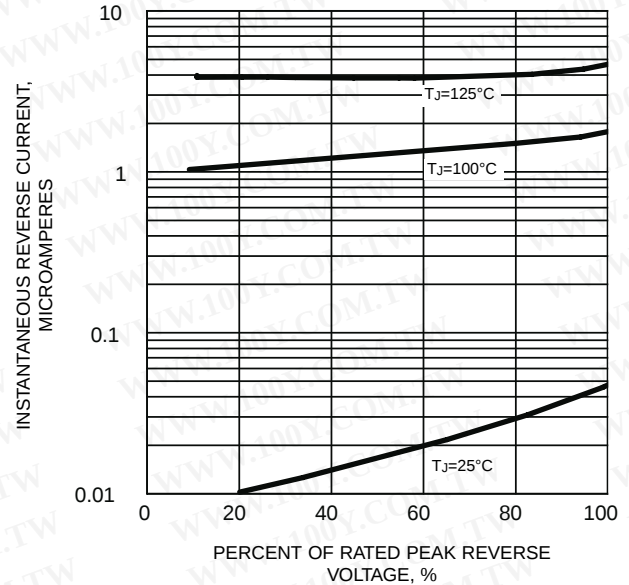
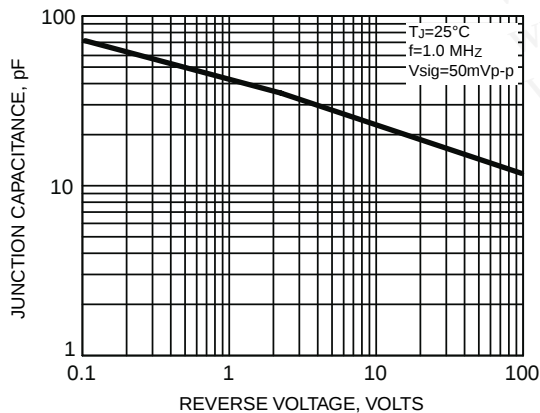


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)