# S2A THRU S2M

## 2.0 AMP SURFACE MOUNT SILICON RECTIFIERS



VOLTAGE RANGE
50 to 1000 Volts
CURRENT
2.0 Ampere

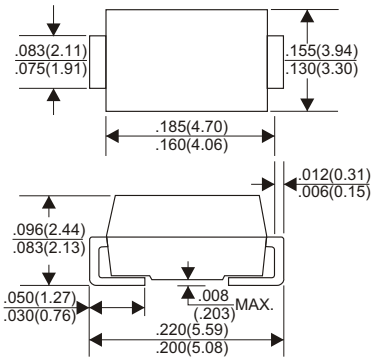
## FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Low forward voltage drop

## MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.093 grams

**DO-214AA(SMB)**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25˚C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | S2A | S2B | S2D | S2G | S2J | S2K | S2M | UNITS |
|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current At $T_L$=110˚C | 2.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 60 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 2.0A | 1.10 | | | | | | | V |
| Maximum DC Reverse Current Ta=25˚C | 5.0 | | | | | | | μA |
| at Rated DC Blocking Voltage Ta=125˚C | 200 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | 30 | | | | | | | pF |
| Typical Thermal Resistance R JL (Note 2) | 16 | | | | | | | ˚C/W |
| Operating and Storage Temperature Range $T_J$, $T_{STG}$ | -65 — +150 | | | | | | | ˚C |

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Lead.

| SYMBOLS | S2A | S2B | S2D | S2G | S2J | S2K | S2M |
|---|---|---|---|---|---|---|---|
| MARKING | S2A | S2B | S2D | S2G | S2J | S2K | S2M |

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## RATING AND CHARACTERISTIC CURVES (S2A THRU S2M)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

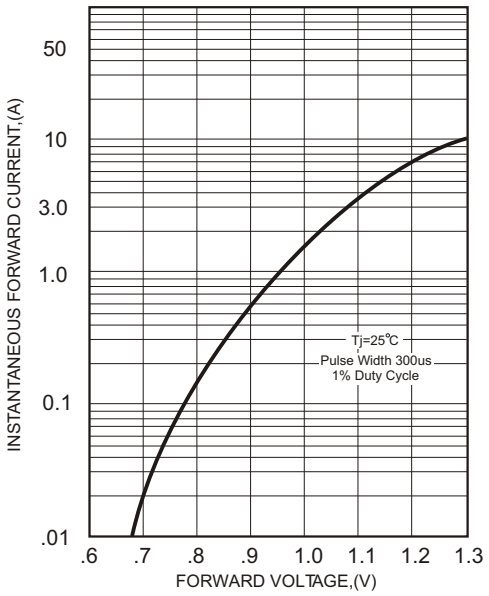



FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

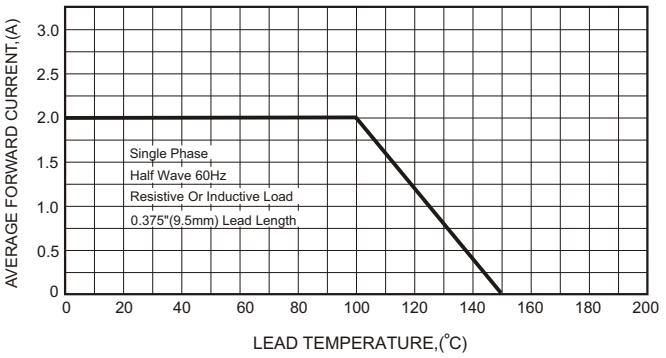



FIG.3 - TYPICAL REVERSE CHARACTERISTICS

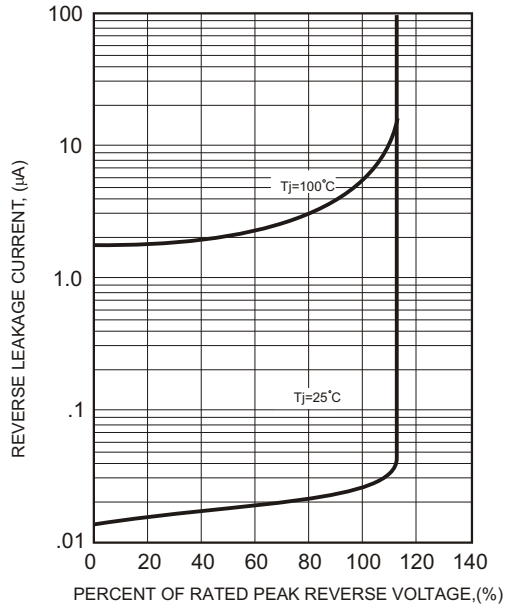



FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

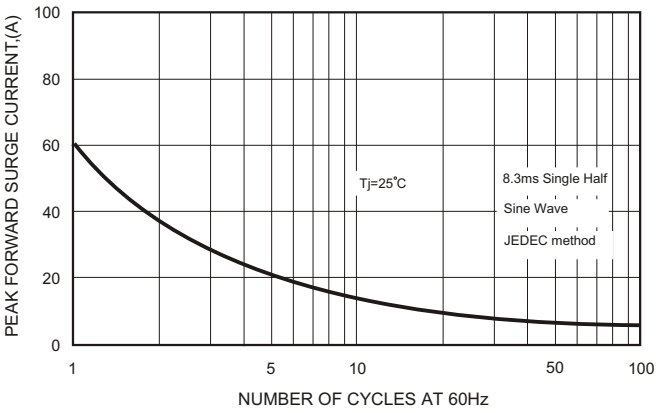
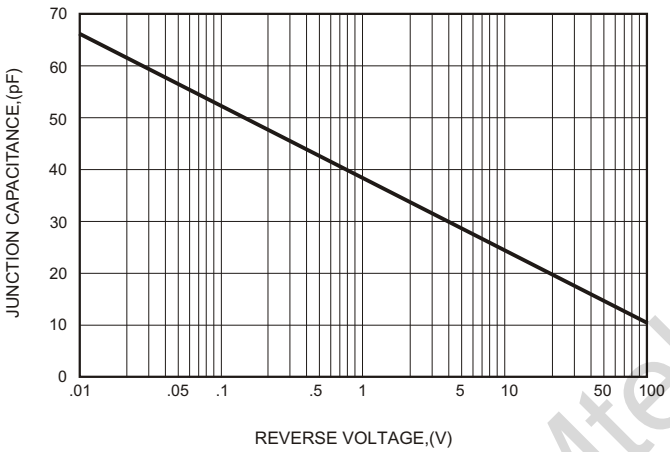



FIG.5-TYPICAL JUNCTION CAPACITANCE




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