



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 Amperes

FEATURES

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

MECHANICAL DATA

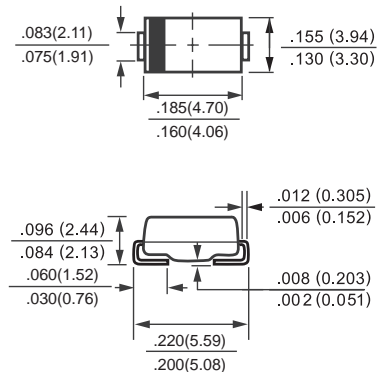
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.093 gram

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 | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | Vbc | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at TA = 75 °C | IO | 2.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 60 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 2.0A DC | VF | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ TA = 25 °C | 5.0 | | | | | | | uAmps |
| | @ TA = 100 °C | 100 | | | | | | | |
| Maximum Reverse Recovery Time (Note 3) | trr | 2.5 | | | | | | | uSec |
| Typical Thermal Resistance (Note 2) | RθJL | 20 | | | | | | | °C/W |
| Typical Junction Capacitance (Note 1) | Cj | 30 | | | | | | | pF |
| Operating and Storage Temperature Range | TJ, TSTG | -65 to + 175 | | | | | | | °C |

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 2. Thermal Resistance (Junction to Ambient), 0.2x0.2in² (5X5mm²) 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

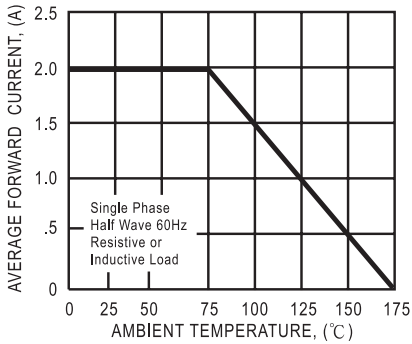


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

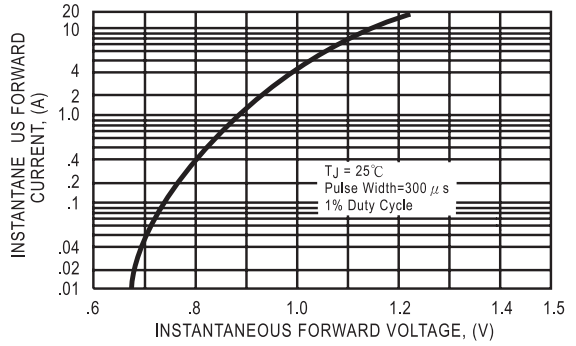


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

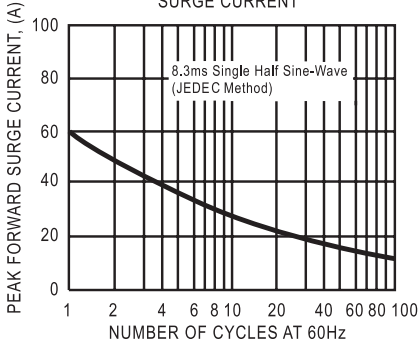


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

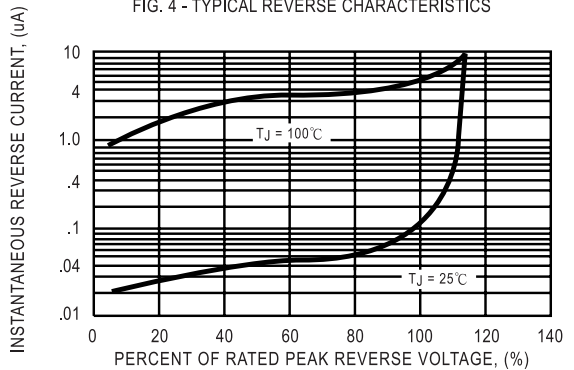


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

