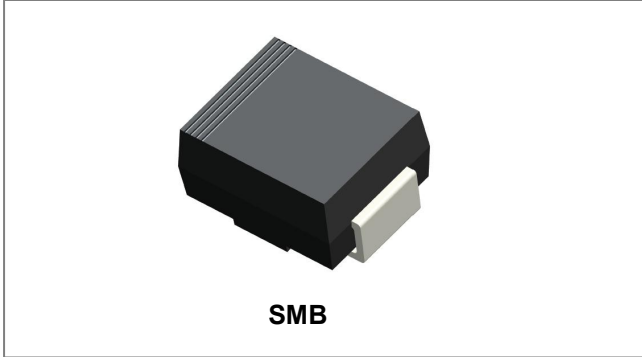


S2A THRU S2M 2.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER



Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: SMB molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.09 grams

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

| Type Number | Symbol | S2A | S2B | S2D | S2G | S2J | S2K | S2M | Units | |
|---|-----------------------------------|-------------|-----|-----|-----|-----|-----|------|-------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | | |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| Average Rectified Output Current @T _L = 110°C | I _O | 2.0 | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 60 | | | | | | | | A |
| Forward Voltage @ I _F = 2.0 A | V _F | 1.10 | | | | | | | | V |
| Peak Reverse Current @T _A = 25°C | I _{RM} | 5.0 | | | | | | | | μA |
| At Rated DC Blocking Voltage @T _A = 125°C | | 200 | | | | | | | | |
| Reverse Recovery Time(Note1) | t _{rr} | 2.5 | | | | | | | | μS |
| Typical Junction Capacitance(Note2) | C _J | 30 | | | | | | | | pF |
| Typical Thermal Resistance Junction to Lead (Note 3) | R _{θJL} | 16 | | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | | °C |

Note: 1. Reverse recovery condition I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Mounted on P.C.B.with 8.0mm² land areas.

Ratings and Characteristics Curves

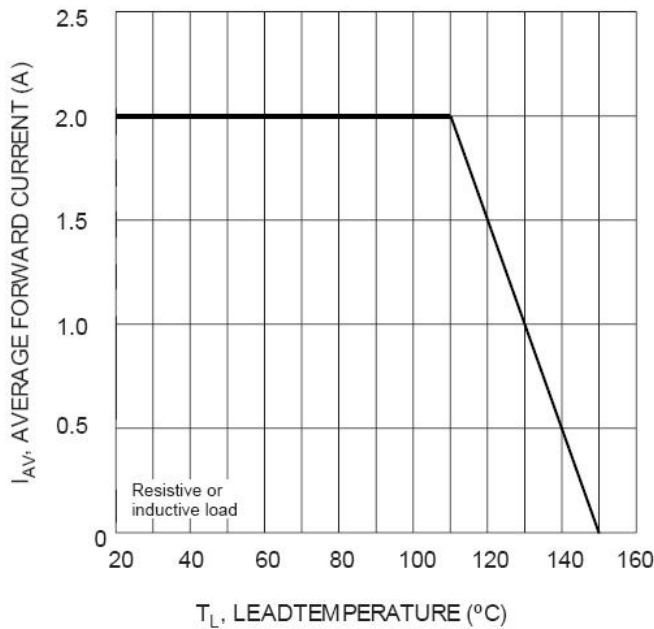


Fig. 1 Forward Current Derating Curve

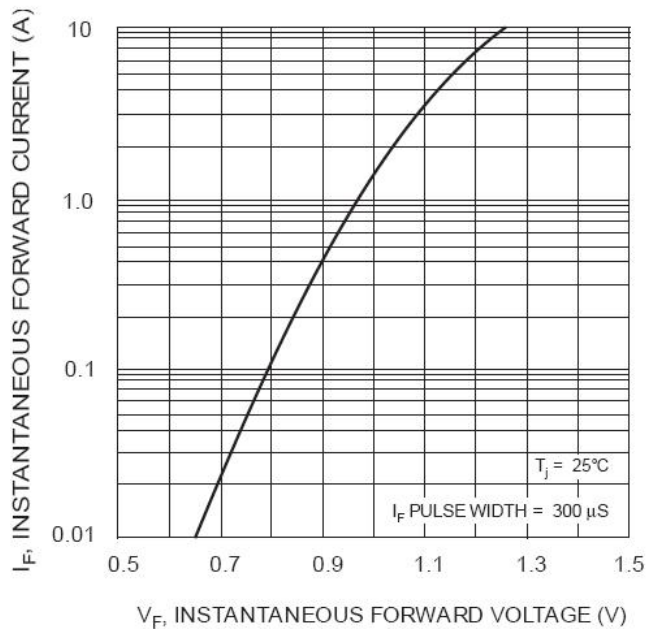


Fig. 2 Typical Forward Characteristics

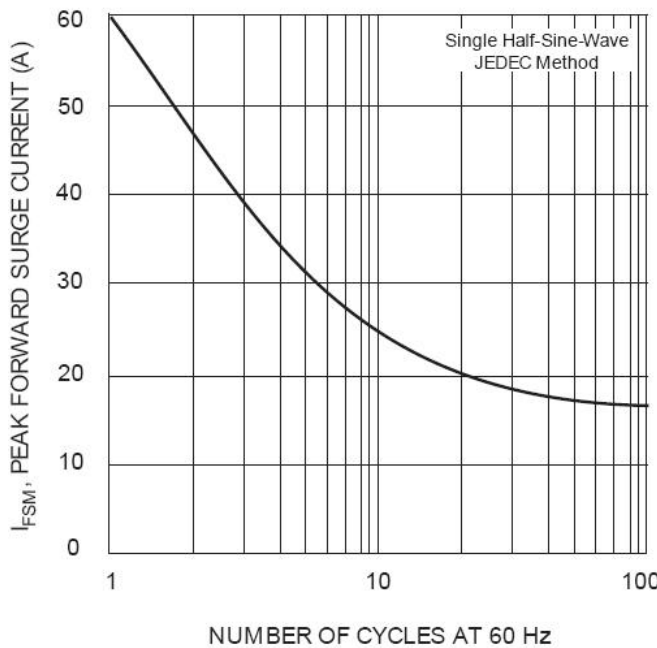


Fig. 3 Forward Surge Current Derating Curve

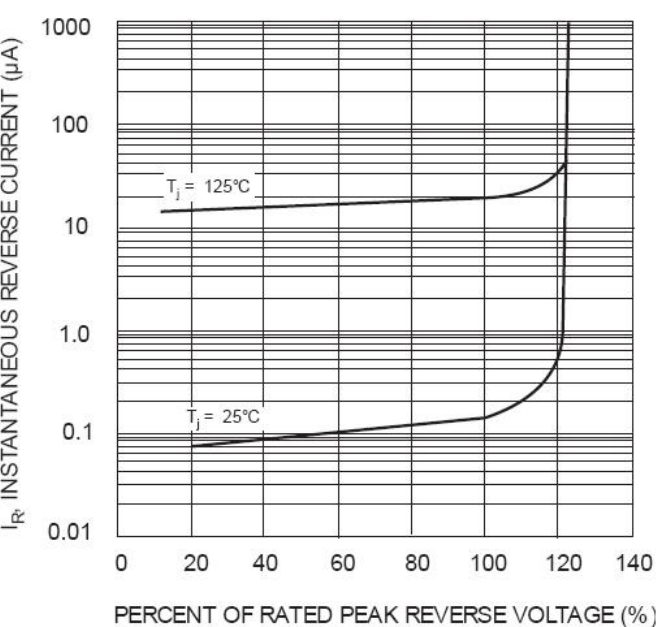
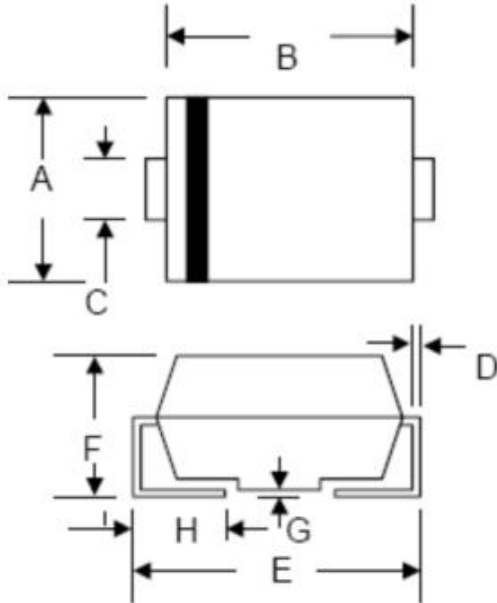


Fig. 4 Typical Reverse Characteristics

Mechanical Dimensions SMB



| SYMBOL | Millimeters | | Inches | |
|--------|-------------|-------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 3.30 | 3.94 | 0.130 | 0.155 |
| B | 4.06 | 4.70 | 0.160 | 0.185 |
| C | 1.80 | 2.20 | 0.071 | 0.087 |
| D | 0.152 | 0.305 | 0.006 | 0.012 |
| E | 4.80 | 5.59 | 0.189 | 0.220 |
| F | 2.10 | 2.60 | 0.083 | 0.102 |
| G | 0.051 | 0.203 | 0.002 | 0.008 |
| H | 0.76 | 1.52 | 0.030 | 0.060 |

Ordering Information

| Device | Package | Shipping |
|---------|--------------|----------------|
| S2A-S2M | SMB(Pb-Free) | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

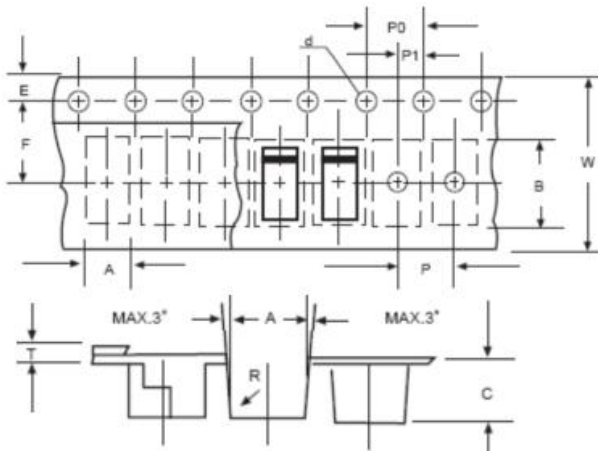


Where XXXXX is YYWWL

S2A = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification SMB



| SYMBOL | Millimeters | |
|--------|-------------|-------|
| | Min. | Max. |
| A | 3.99 | 4.19 |
| B | 5.72 | 5.92 |
| C | 3.23 | 3.43 |
| d | 1.40 | 1.60 |
| E | 1.40 | 1.60 |
| F | 5.60 | 5.70 |
| P | 7.90 | 8.10 |
| P0 | 3.90 | 4.10 |
| P1 | 1.90 | 2.10 |
| T | - | 0.60 |
| W | 11.80 | 12.20 |

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