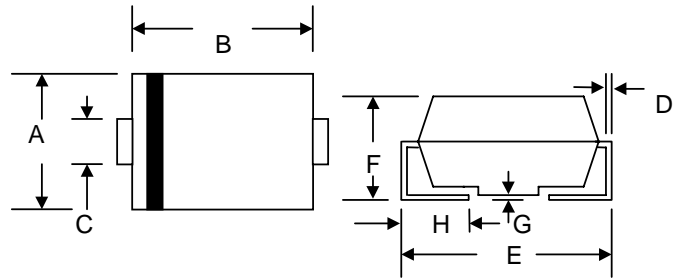


## 2.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 60A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



### Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

| SMB/DO-214AA         |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 3.30  | 3.94  |
| B                    | 4.06  | 4.70  |
| C                    | 1.91  | 2.11  |
| D                    | 0.152 | 0.305 |
| E                    | 5.08  | 5.59  |
| F                    | 2.13  | 2.44  |
| G                    | 0.051 | 0.203 |
| H                    | 0.76  | 1.27  |
| All Dimensions in mm |       |       |

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic  | Symbol                          | S2A         | S2B | S2D | S2G | S2J | S2K | S2M  | Unit             |
|---|---------------------------------|-------------|-----|-----|-----|-----|-----|------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V                |
| RMS Reverse Voltage   | $V_{R(RMS)}$                    | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V                |
| Average Rectified Output Current @ $T_L = 110^\circ\text{C}$  | $I_O$                           | 2.0         |     |     |     |     |     |      | A                |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | $I_{FSM}$                       | 60          |     |     |     |     |     |      | A                |
| Forward Voltage @ $I_F = 2.0\text{A}$   | $V_{FM}$                        | 1.10        |     |     |     |     |     |      | V                |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$           | $I_{RM}$                        | 5.0<br>200  |     |     |     |     |     |      | $\mu\text{A}$    |
| Reverse Recovery Time (Note 1)  | $t_{rr}$                        | 2.5         |     |     |     |     |     |      | $\mu\text{s}$    |
| Typical Junction Capacitance (Note 2)   | $C_j$                           | 30          |     |     |     |     |     |      | pF               |
| Typical Thermal Resistance (Note 3)   | $R_{\theta JL}$                 | 16          |     |     |     |     |     |      | K/W              |
| Operating and Storage Temperature Range   | $T_j, T_{STG}$                  | -55 to +150 |     |     |     |     |     |      | $^\circ\text{C}$ |

Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$ ,  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.

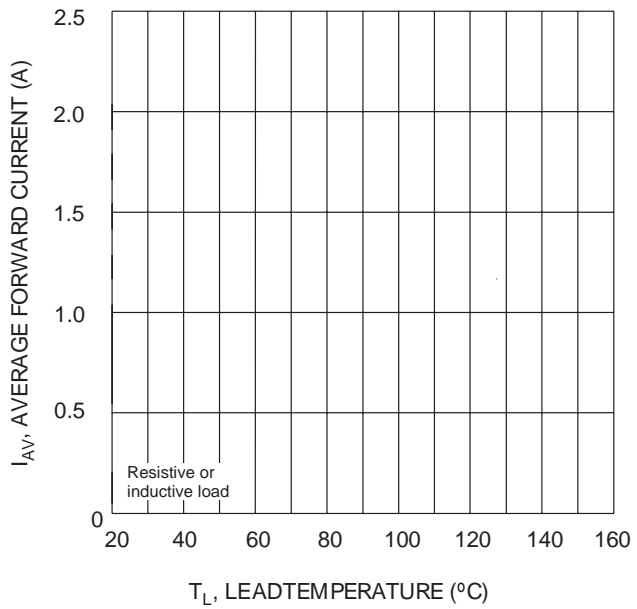


Fig. 1 Forward Current Derating Curve

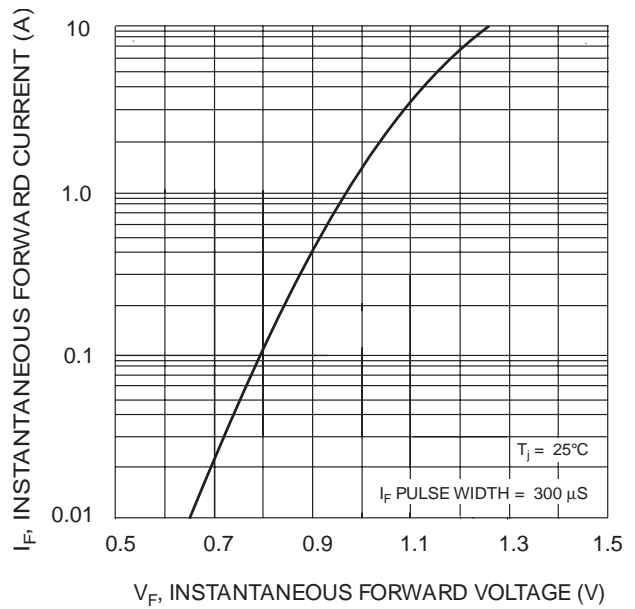


Fig. 2 Typical Forward Characteristics

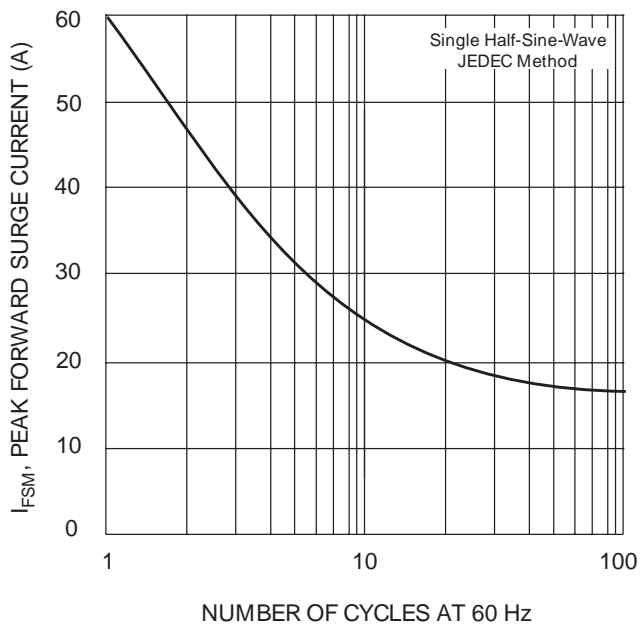


Fig. 3 Forward Surge Current Derating Curve

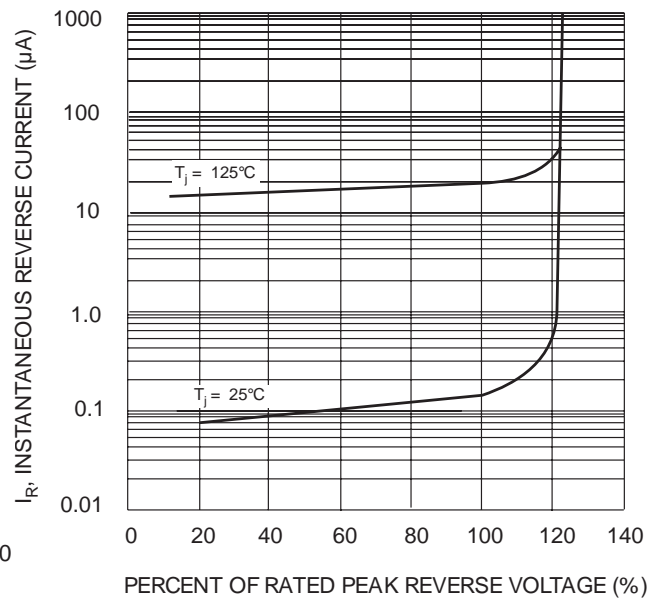


Fig. 4 Typical Reverse Characteristics

## ORDERING INFORMATION

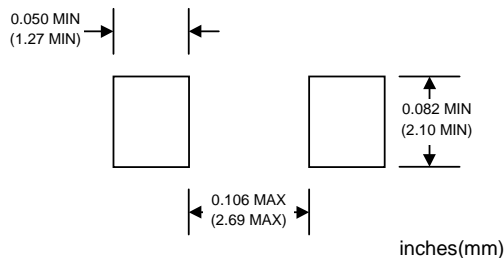
| Product No.◆  | Package Type | Shipping Quantity |
|---------------|--------------|-------------------|
| S2A-T1        | SMB          | 500/Tape & Reel   |
| <b>S2A-T3</b> | SMB          | 3000/Tape & Reel  |
| S2B-T1        | SMB          | 500/Tape & Reel   |
| <b>S2B-T3</b> | SMB          | 3000/Tape & Reel  |
| S2D-T1        | SMB          | 500/Tape & Reel   |
| <b>S2D-T3</b> | SMB          | 3000/Tape & Reel  |
| S2G-T1        | SMB          | 500/Tape & Reel   |
| <b>S2G-T3</b> | SMB          | 3000/Tape & Reel  |
| S2J-T1        | SMB          | 500/Tape & Reel   |
| <b>S2J-T3</b> | SMB          | 3000/Tape & Reel  |
| S2K-T1        | SMB          | 500/Tape & Reel   |
| <b>S2K-T3</b> | SMB          | 3000/Tape & Reel  |
| S2M-T1        | SMB          | 500/Tape & Reel   |
| <b>S2M-T3</b> | SMB          | 3000/Tape & Reel  |

Products listed in **bold** are WTE Preferred devices.

◆T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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