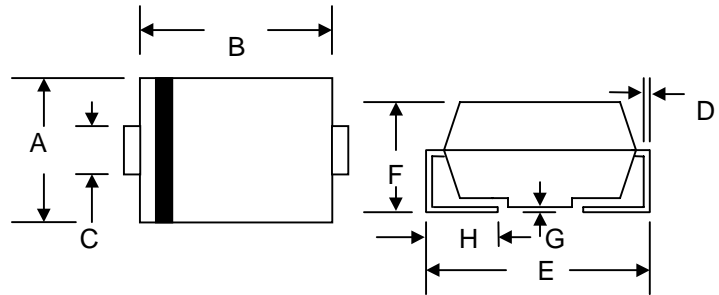


1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

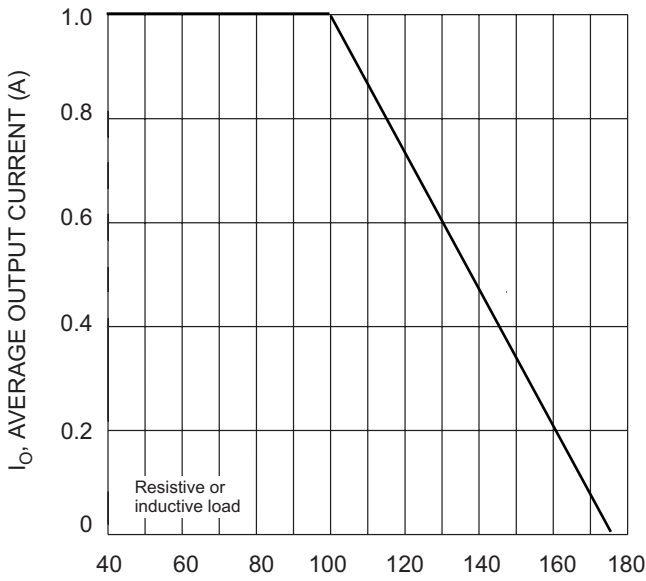
- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

| 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 | | |

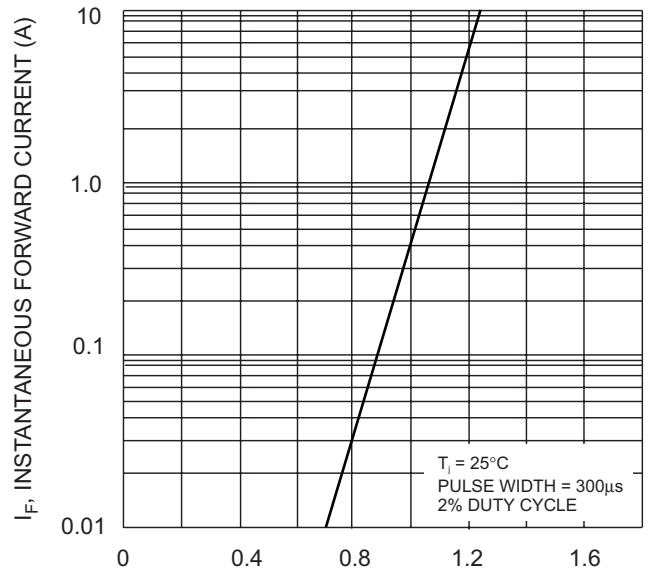
Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | S1A | S1B | S1D | S1G | S1J | S1K | S1M | Unit |
|---|-----------------|-------------|-----|-----|-----|-----|-----|------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V_R | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ | I_O | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30 | | | | | | | A |
| Forward Voltage @ $I_F = 1.0\text{A}$ | V_{FM} | 1.10 | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_{RM} | 5.0 200 | | | | | | | μA |
| Reverse Recovery Time (Note 1) | t_{rr} | 2.5 | | | | | | | μS |
| Typical Junction Capacitance (Note 2) | C_j | 15 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JL}$ | 30 | | | | | | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +175 | | | | | | | $^\circ\text{C}$ |

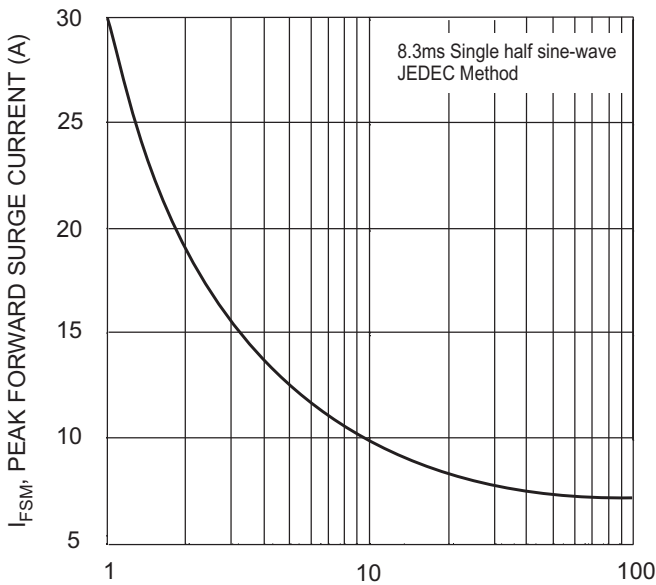
- Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$,
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.



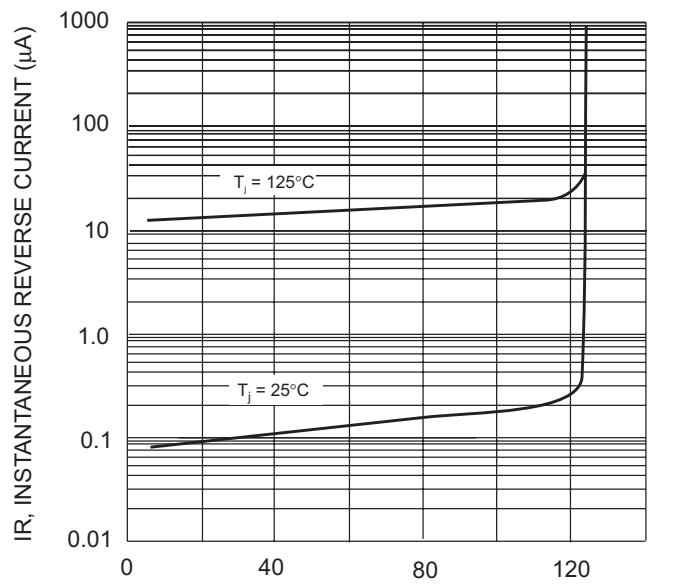
T_L , LEAD TEMPERATURE ($^{\circ}\text{C}$)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES @ 60Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 4 Typical Reverse Characteristics

ORDERING INFORMATION

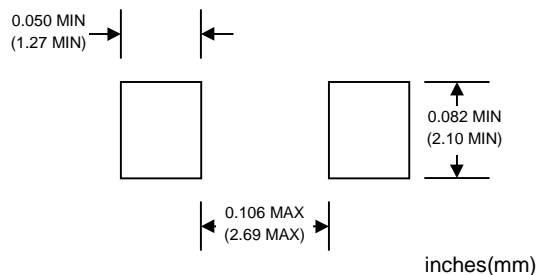
| Product No.♦ | Package Type | Shipping Quantity |
|---------------|--------------|-------------------|
| S1A-T1 | SMB | 500/Tape & Reel |
| S1A-T3 | SMB | 3000/Tape & Reel |
| S1B-T1 | SMB | 500/Tape & Reel |
| S1B-T3 | SMB | 3000/Tape & Reel |
| S1D-T1 | SMB | 500/Tape & Reel |
| S1D-T3 | SMB | 3000/Tape & Reel |
| S1G-T1 | SMB | 500/Tape & Reel |
| S1G-T3 | SMB | 3000/Tape & Reel |
| S1J-T1 | SMB | 500/Tape & Reel |
| S1J-T3 | SMB | 3000/Tape & Reel |
| S1K-T1 | SMB | 500/Tape & Reel |
| S1K-T3 | SMB | 3000/Tape & Reel |
| S1M-T1 | SMB | 500/Tape & Reel |
| S1M-T3 | 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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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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We power your everyday.