

S1A-S1M
1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

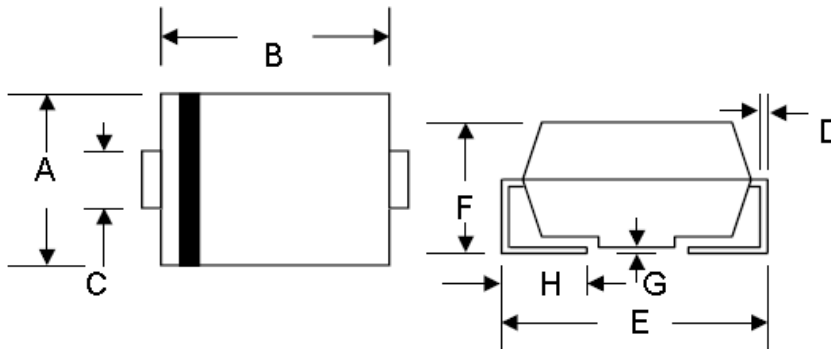
Features:

- 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

Mechanical Data:

- Case: molded plastic
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode band or Cathode Notch
- Weight:0.064 grams(approx)

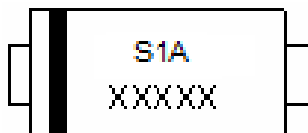
Mechanical Dimensions:



| Dim. | SMA/DO-214AC | | | |
|------|--------------|-------|---------|-------|
| | Min. | Max. | Min. | Max. |
| A | 2.50 | 2.90 | 0.098 | 0.114 |
| B | 4.00 | 4.60 | 0.157 | 0.181 |
| C | 1.40 | 1.60 | 0.055 | 0.063 |
| D | 0.152 | 0.305 | 0.006 | 0.012 |
| E | 4.80 | 5.28 | 0.189 | 0.208 |
| F | 2.00 | 2.44 | 0.079 | 0.096 |
| G | 0.051 | 0.203 | 0.002 | 0.008 |
| H | 0.76 | 1.52 | 0.030 | 0.060 |
| | In mm | | In inch | |

SMA

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Marking Diagram:


Where XXXXX is YYWWL

| | |
|-----|--------------|
| S1A | = Part Name |
| YY | = Year |
| WW | = Week |
| L | = Lot Number |

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

Ordering Information

| Device | Package | Shipping |
|---------|------------------|----------------|
| S1A-S1M | SMA (Pb-Free) | 5000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

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 Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average forward 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_{THJL} | 30 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to +175 | | | | | | | $^\circ\text{C}$ |

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

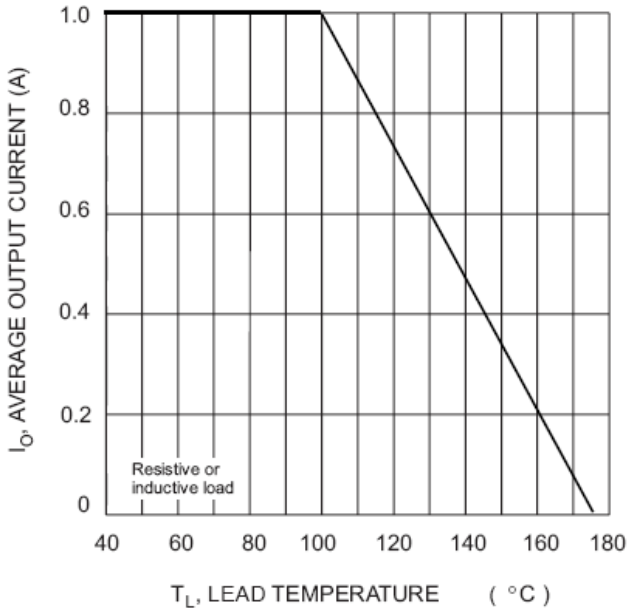


Fig. 1 Forward Current Derating Curve

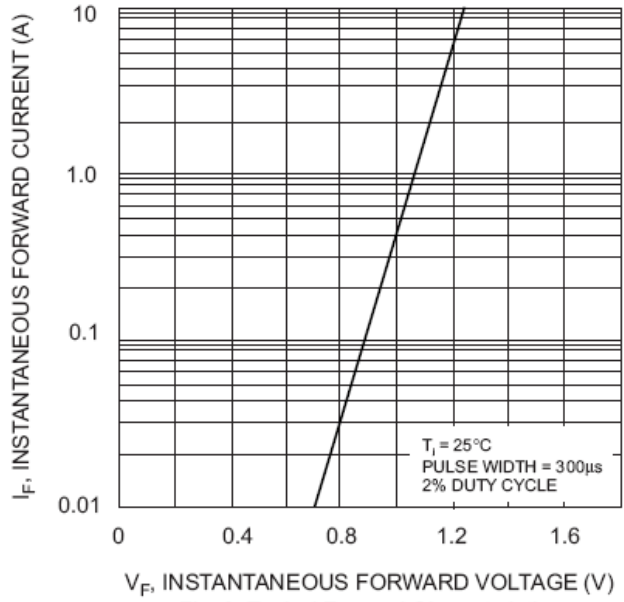


Fig. 2 Typical Forward Characteristics

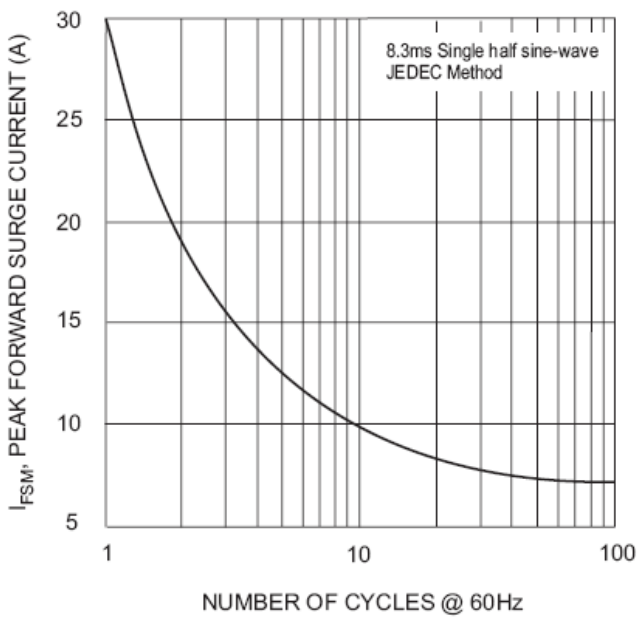


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

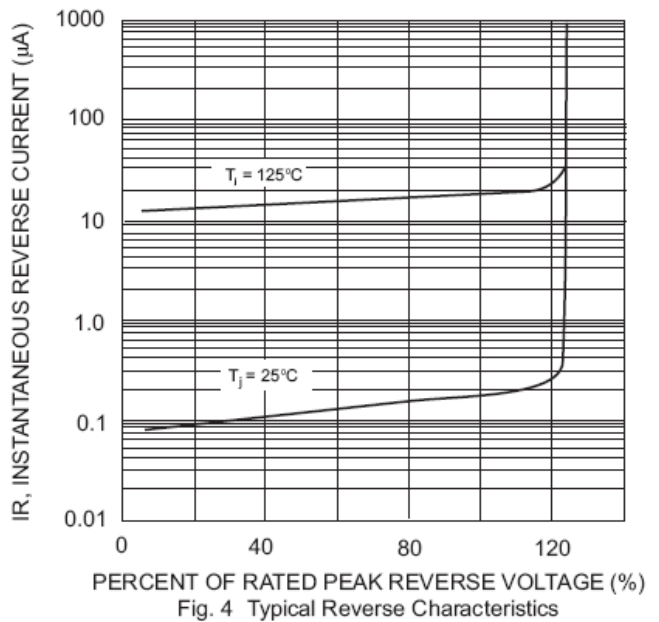


Fig. 4 Typical Reverse Characteristics



S1A-M

Technical Data
Data Sheet N0560, Rev. A

Green Products

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