



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

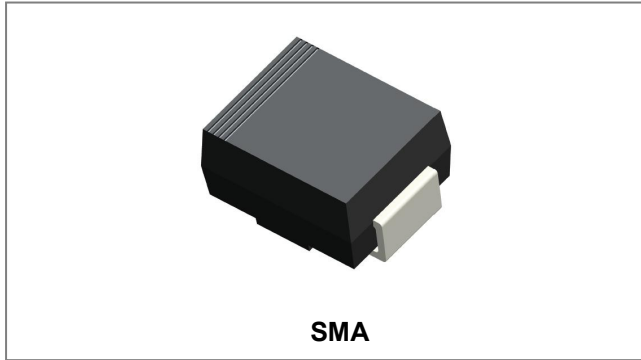
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ST1300A SCHOTTKY RECTIFIER



Features

- 175 °C T_J operation
- Center tap configuration
- Ultralow forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- These Devices are Pb-Free and are RoHS Compliant
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|--|--|---|------|-------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | - | 300 | V |
| Average Rectified Forward Current | I _{F(AV)} | 50% duty cycle @T _A =75°C, rectangular wave form | 1 | A |
| Peak One Cycle Non-Repetitive Surge Current | I _{FSM} | 8.3ms, Half Sine pulse, T _c = 25 °C | 40 | A |

Electrical Characteristics:

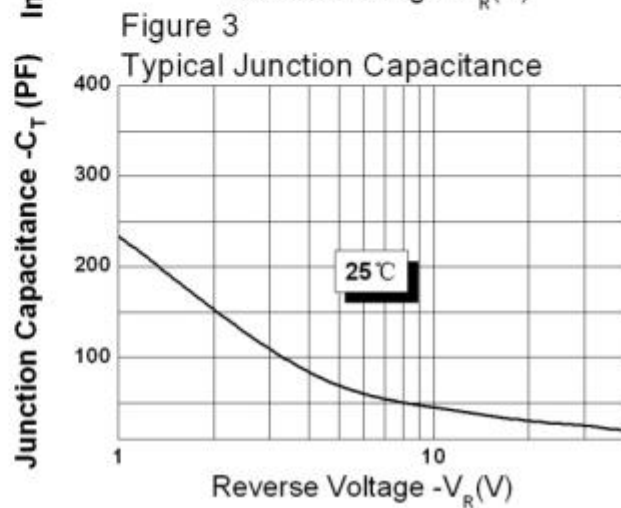
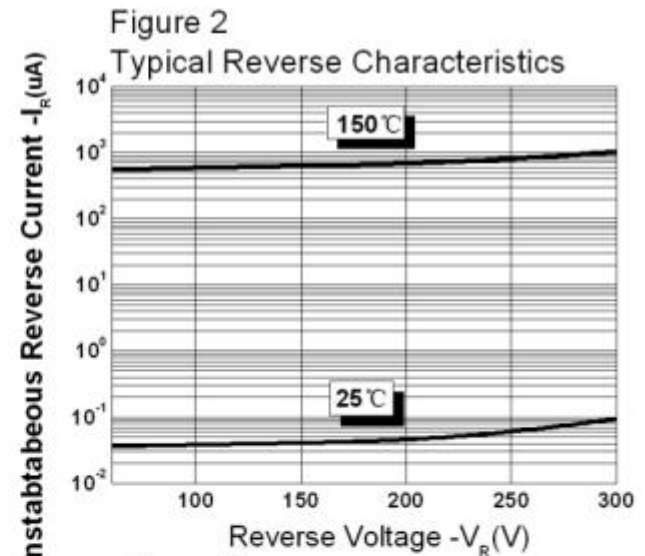
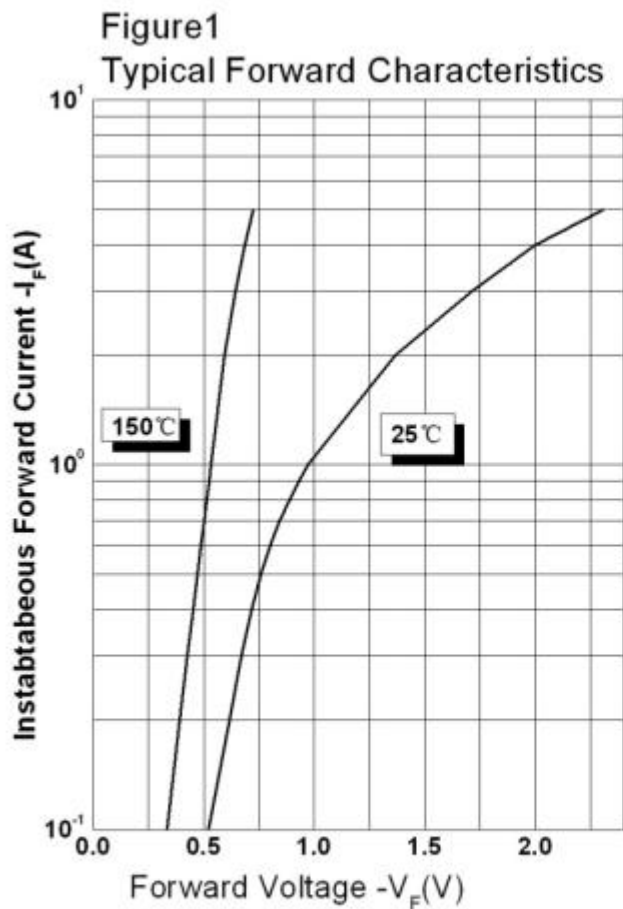
| Characteristics | Symbol | Condition | Typ. | Max. | Units |
|-----------------------|------------------|--|------|------|-------|
| Forward Voltage Drop* | V _{F1} | @ 1A, Pulse, T _J = 25 °C | 1.0 | 1.1 | V |
| | V _{F1} | @ 1A, Pulse, T _J = 150 °C | 0.51 | 0.8 | V |
| Reverse Current* | I _{R1} | @V _R = rated V _R , T _J = 25 °C | 0.1 | 5 | uA |
| | I _{R2} | @V _R = rated V _R , T _J = 150 °C | 1 | 5 | mA |
| Reverse Recovery Time | t _{rr1} | I _F =500mA, I _R =1A, and I _m =250mA | - | 35 | nS |

* Pulse width < 300 μs, duty cycle < 2%

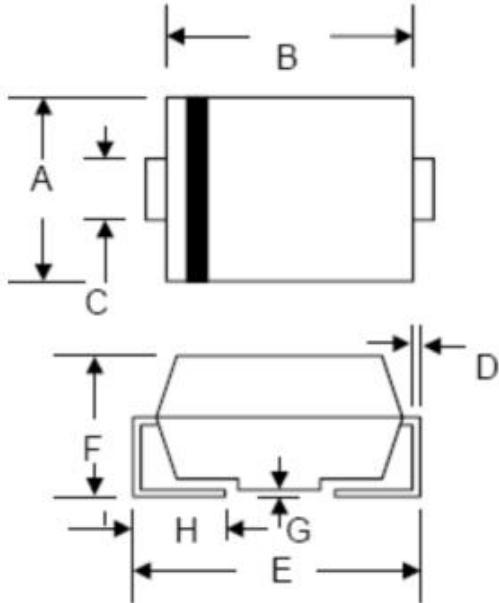
Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|--|-----------------|--------------|---------------|-------|
| Junction Temperature | T_J | - | -55 to +175 | °C |
| Storage Temperature | T_{stg} | - | -55 to +175 | °C |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | DC operation | 216 | °C/W |
| Approximate Weight | wt | - | 0.06 | g |

Ratings and Characteristics Curves



Mechanical Dimensions SMA



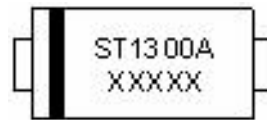
| SYMBOL | Millimeters | | Inches | |
|--------|-------------|-------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 2.40 | 2.84 | 0.094 | 0.112 |
| B | 3.99 | 4.75 | 0.157 | 0.187 |
| C | 1.05 | 1.70 | 0.041 | 0.067 |
| D | 0.15 | 0.51 | 0.006 | 0.020 |
| E | 4.80 | 5.66 | 0.189 | 0.223 |
| F | 1.90 | 2.95 | 0.075 | 0.116 |
| G | 0.05 | 0.203 | 0.002 | 0.008 |
| H | 0.76 | 1.52 | 0.030 | 0.600 |

Ordering Information

| Device | Package | Shipping |
|---------|---------|----------------|
| ST1300A | SMA | 5000pcs / 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

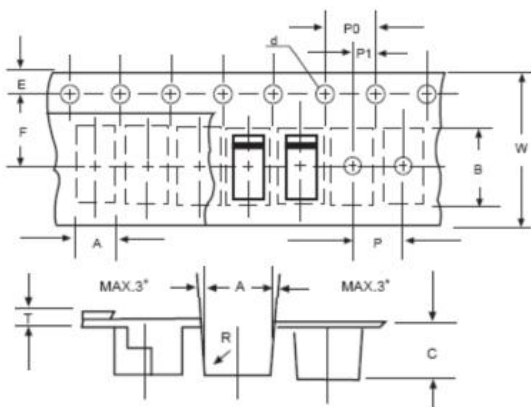


Where XXXXX is YYWWL

- ST = Device Type
- 1 = Forward Current (1A)
- 300 = Reverse Voltage (300V)
- A = Package type
- YY = Year
- WW = Week
- L = Lot Number

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

Carrier Tape Specification SMA



| SYMBOL | Millimeters | |
|--------|-------------|-------|
| | Min. | Max. |
| A | 2.97 | 3.17 |
| B | 5.70 | 5.90 |
| C | 2.32 | 2.52 |
| d | 1.40 | 1.60 |
| E | 1.40 | 1.60 |
| F | 5.60 | 5.70 |
| P | 3.90 | 4.10 |
| P0 | 3.90 | 4.10 |
| P1 | 1.90 | 2.10 |
| T | 0.25 | 0.35 |
| W | 11.80 | 12.20 |

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