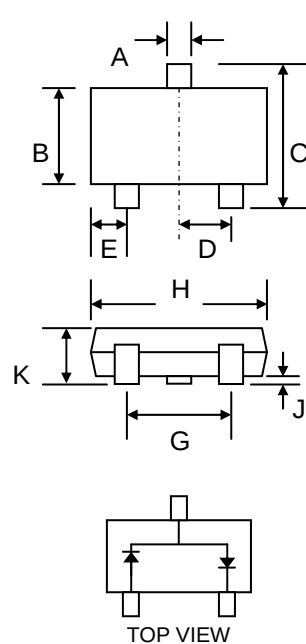


### Features

- Low Turn-On Voltage
- Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0

### Mechanical Data

- Case: SOT-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.006 grams (approx.)
- Mounting Position: Any
- Marking: N9
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



| SOT-323              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 0.25         | 0.40 |
| B                    | 1.15         | 1.35 |
| C                    | 2.00         | 2.40 |
| D                    | 0.65 Nominal |      |
| E                    | 0.30         | 0.40 |
| G                    | 1.20         | 1.40 |
| H                    | 1.80         | 2.20 |
| J                    | —            | 0.10 |
| K                    | 0.90         | 1.10 |
| L                    | 0.25         | —    |
| M                    | 0.05         | 0.15 |
| All Dimensions in mm |              |      |

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

| Characteristic                                                                         | Symbol                                                 | Value       | Unit |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage                                                    | V <sub>RM</sub>                                        | 15          | V    |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 10          | V    |
| Maximum Forward Continuous Current                                                     | I <sub>FM</sub>                                        | 200         | mA   |
| Average Rectified Output Current                                                       | I <sub>O</sub>                                         | 100         | mA   |
| Non-Repetitive Peak Forward Surge Current @ t = 10ms                                   | I <sub>FSM</sub>                                       | 1.0         | A    |
| Operating and Storage Temperature Range                                                | T <sub>J</sub> , T <sub>STG</sub>                      | -55 to +125 | °C   |

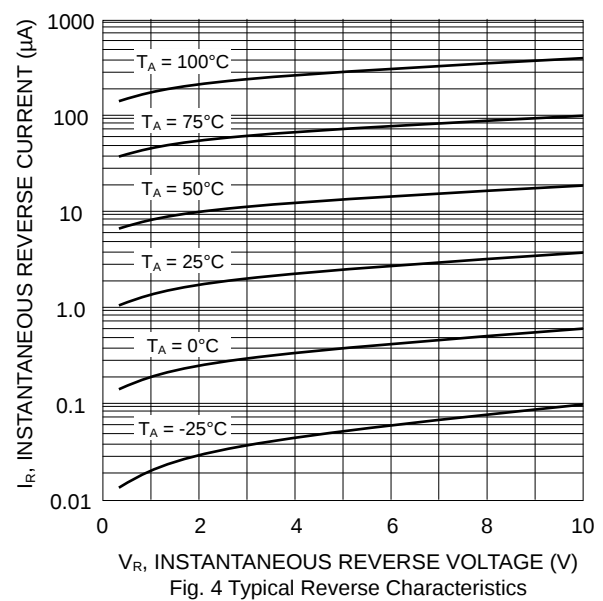
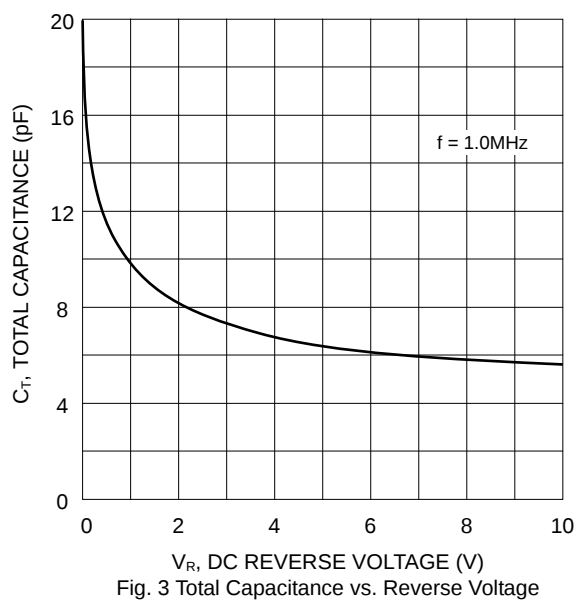
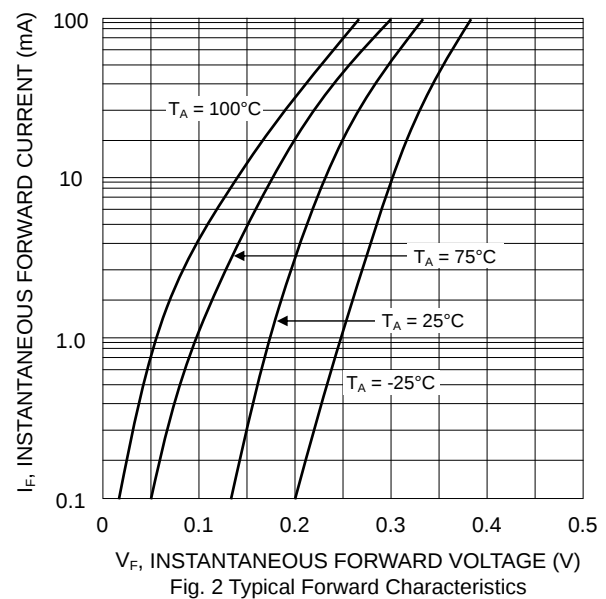
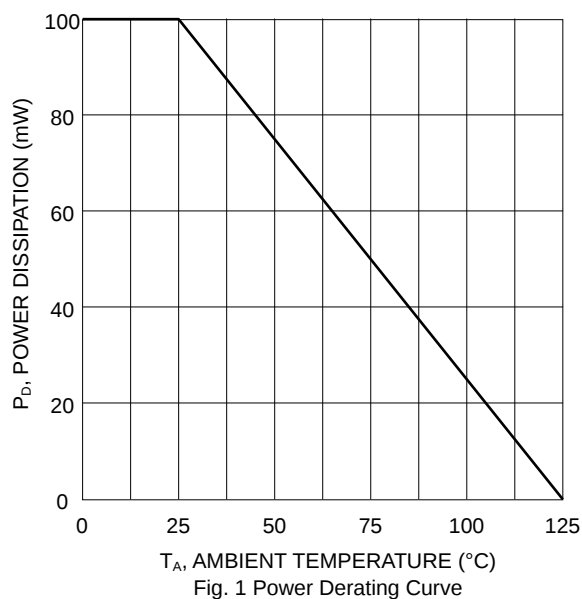
### Thermal Characteristics

| Characteristic             | Symbol         | Value | Unit |
|----------------------------|----------------|-------|------|
| Power Dissipation (Note 1) | P <sub>D</sub> | 100   | mW   |

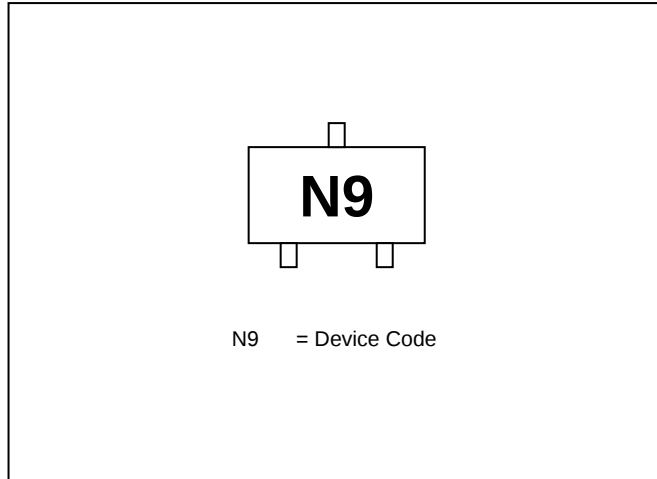
Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

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

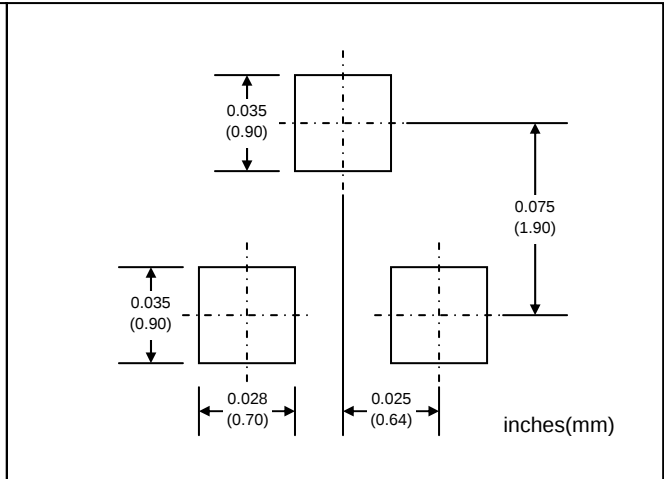
| Characteristic                                                                                     | Symbol | Min. | Typ.                 | Max.              | Unit          |
|----------------------------------------------------------------------------------------------------|--------|------|----------------------|-------------------|---------------|
| Forward Voltage Drop<br>@ $I_F = 1.0\text{mA}$<br>@ $I_F = 5.0\text{mA}$<br>@ $I_F = 100\text{mA}$ | $V_F$  |      | 0.18<br>0.23<br>0.35 | —<br>0.30<br>0.50 | V             |
| Reverse Leakage Current<br>@ $V_R = 10\text{V}$                                                    | $I_R$  |      |                      | 20                | $\mu\text{A}$ |
| Diode Capacitance ( $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$ )                                      | $C_D$  |      | 20                   | 40                | pF            |



## MARKING INFORMATION

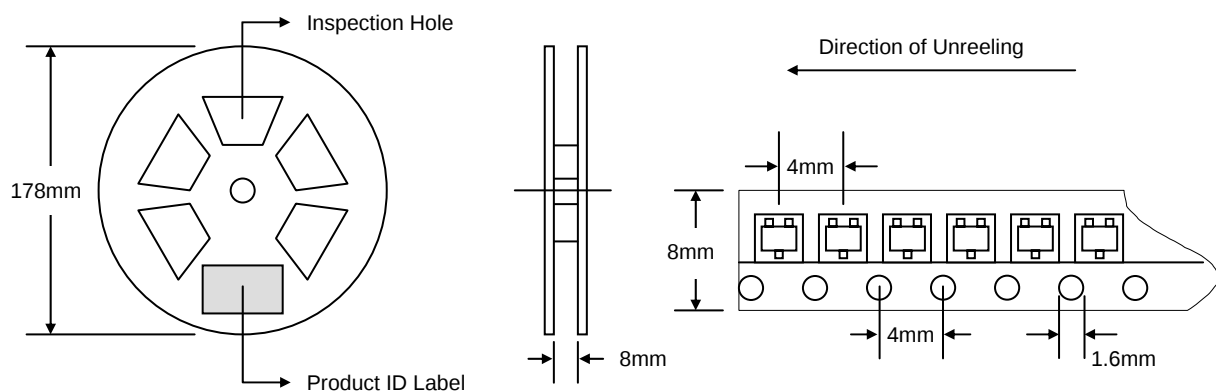


## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



| Reel Diameter (mm) | Quantity (PCS) | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 178                | 3,000          | 187 x 187 x 65                | 15,000         | 390 x 240 x 420            | 150,000        | 10.0                      |

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| 1SS372-T1   | SOT-323      | 3000/Tape & Reel  |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1SS372-T1-LF.**

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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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