



# 1SV251

## PIN Diode

Dual series PIN Diode for VHF, UHF and AGC  
50V, 50mA,  $r_s = \max 4.5\Omega$ , CP

ON Semiconductor®

<http://onsemi.com>

### Features

- Small-sized package facilitates high-density mounting and permits 1SV251-applied equipment to be made smaller
- Small interterminal capacitance ( $C=0.23\text{pF typ}$ )
- Small forward series resistance ( $r_s=4.5\Omega \text{ max}$ )

### Specifications

Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$

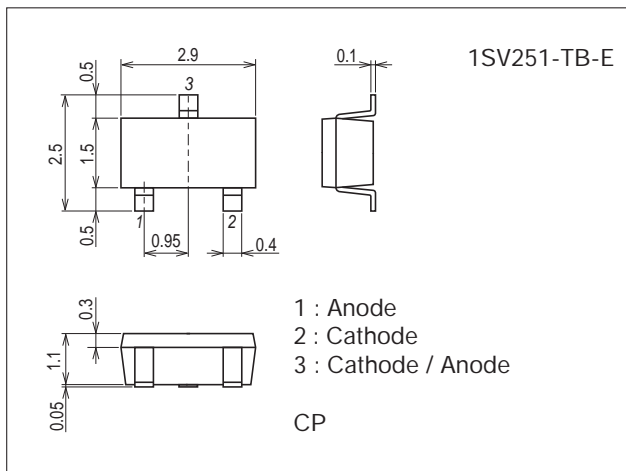
| Parameter                   | Symbol    | Conditions | Ratings     | Unit             |
|-----------------------------|-----------|------------|-------------|------------------|
| Reverse Voltage             | $V_R$     |            | 50          | V                |
| Forward Current             | $I_F$     |            | 50          | mA               |
| Allowable Power Dissipation | P         |            | 150         | mW               |
| Junction Temperature        | $T_j$     |            | 125         | $^\circ\text{C}$ |
| Storage Temperature         | $T_{stg}$ |            | -55 to +125 | $^\circ\text{C}$ |

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

### Package Dimensions

unit : mm (typ)

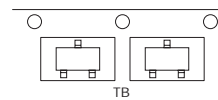
7013A-008



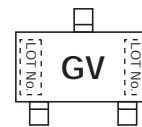
### Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

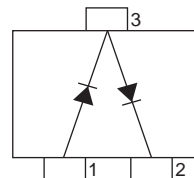
### Packing Type: TB



### Marking



### Electrical Connection



# 1SV251

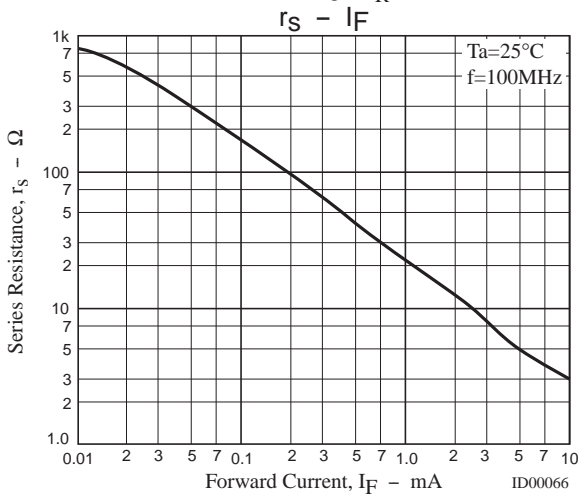
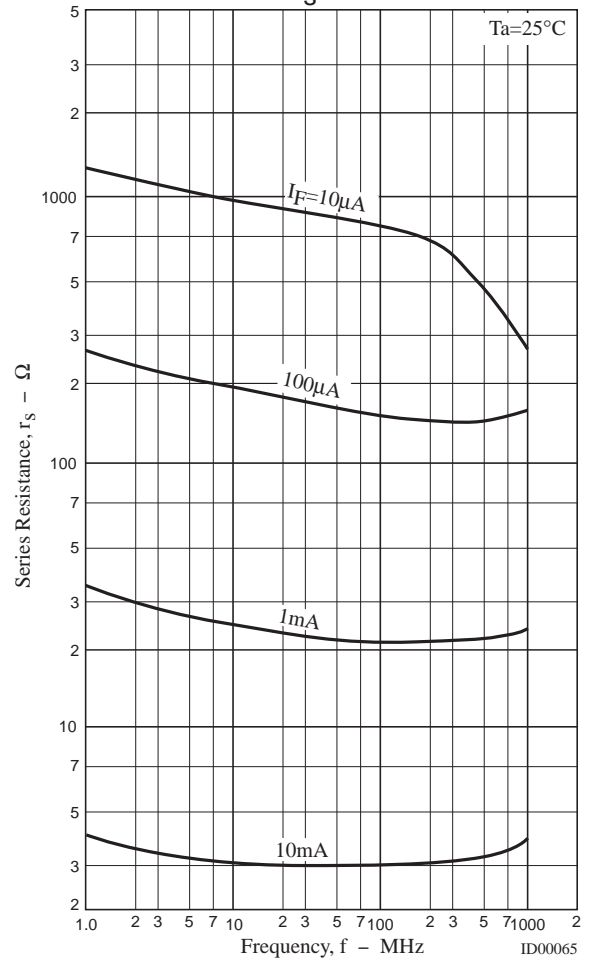
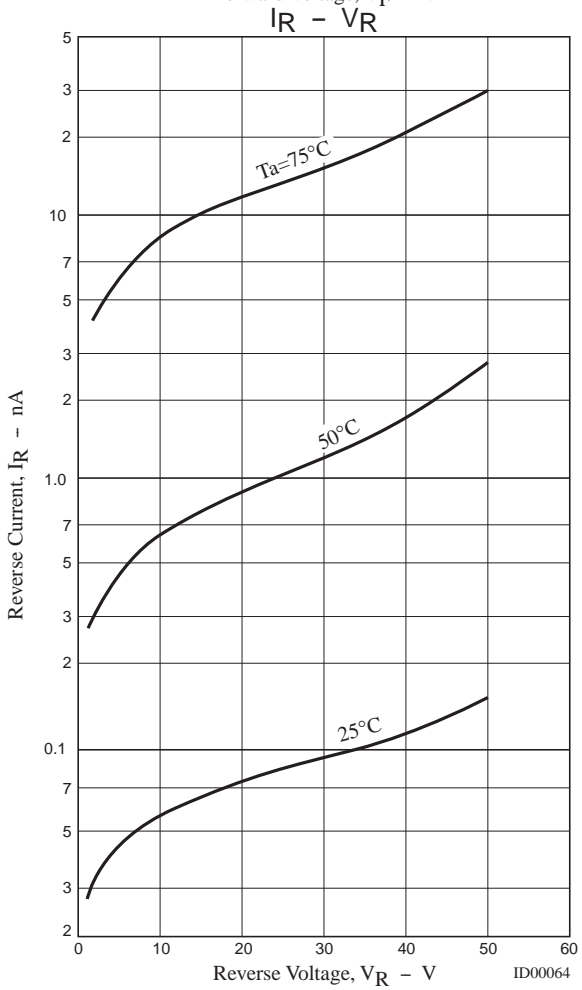
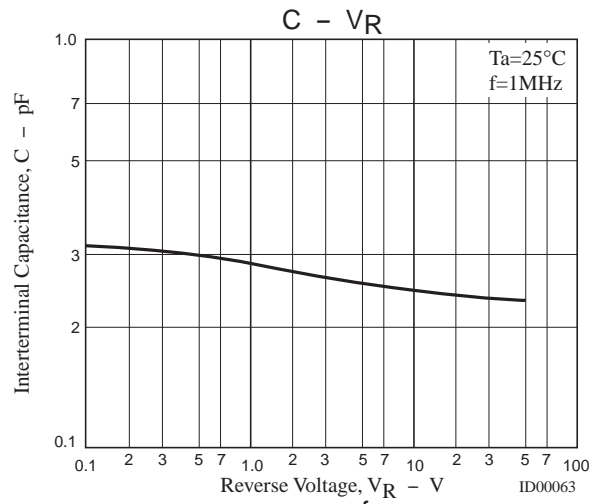
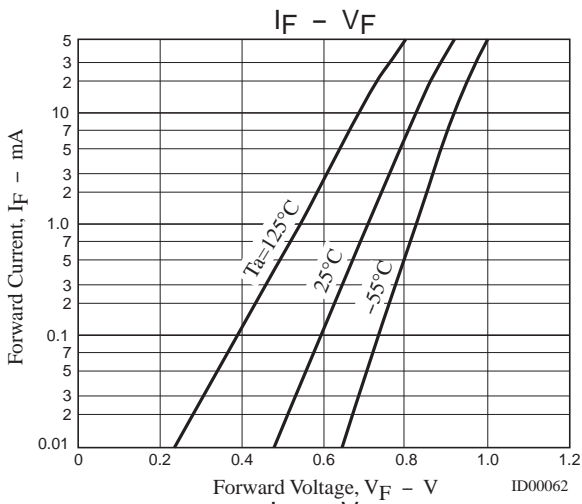
## Electrical Characteristics at Ta=25°C

| Parameter                 | Symbol         | Conditions                     | Ratings |      |     | Unit |
|---------------------------|----------------|--------------------------------|---------|------|-----|------|
|                           |                |                                | min     | typ  | max |      |
| Reverse Voltage           | V <sub>R</sub> | I <sub>R</sub> =10μA           | 50      |      |     | V    |
| Reverse Current           | I <sub>R</sub> | V <sub>R</sub> =50V            |         |      | 0.1 | μA   |
| Forward Voltage           | V <sub>F</sub> | I <sub>F</sub> =50mA           |         | 0.92 |     | V    |
| Interterminal Capacitance | C              | V <sub>R</sub> =50V, f=1MHz    |         | 0.23 |     | pF   |
| Series Resistance         | r <sub>s</sub> | I <sub>F</sub> =10mA, f=100MHz |         |      | 4.5 | Ω    |

Note : The specifications shown above are for each individual diode.

## Ordering Information

| Device      | Package | Shipping       | memo    |
|-------------|---------|----------------|---------|
| 1SV251-TB-E | CP      | 3,000pcs./reel | Pb Free |



Embossed Taping Specification

1SV251-TB-E

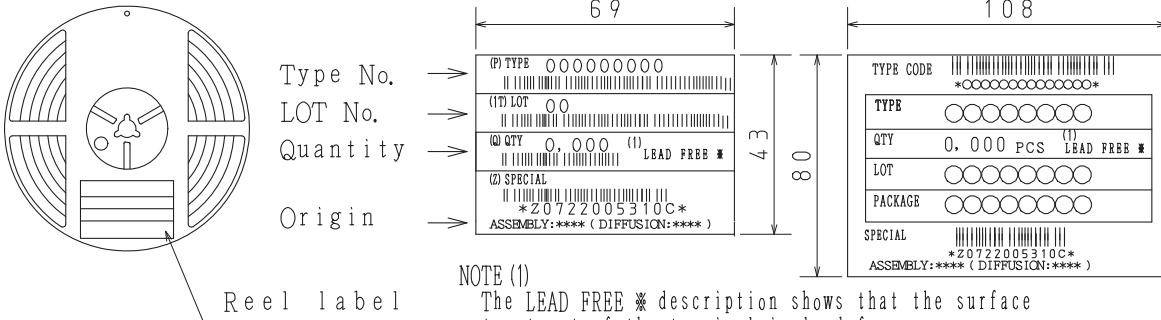
1. Packing Format

| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) |           |           | Packing format  |  |
|--------------|-------------------|---|-----------|-----------|---|--|
|              |                   | Reel                                      | Inner box | Outer box | Inner BOX (C-1)   | Outer BOX (A-7)  |
| CP           | CP                | 3,000                                     | 15,000    | 90,000    | 5 reels contained<br>Dimensions:mm (external)<br>183×72×185 | 6 inner boxes contained<br>Dimensions:mm (external)<br>440×195×210 |

Packing method

Reel label, Inner box label (unit:mm)      Outer box label

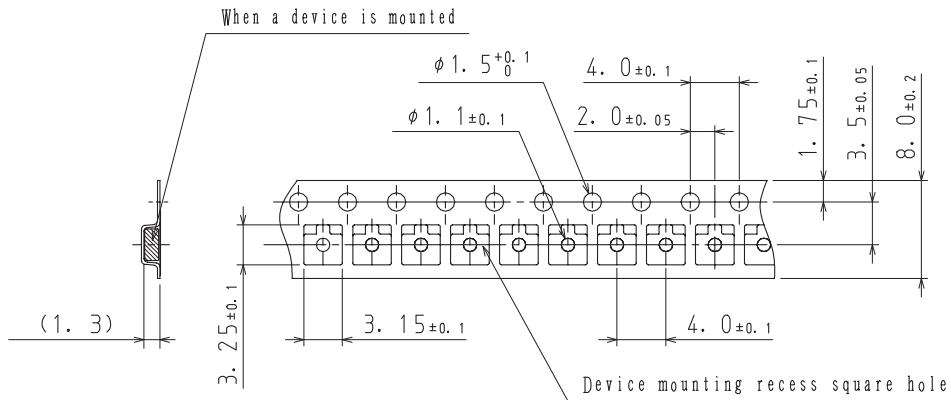
It is a label at the time of factory shipments. The form of a label may change in physical distribution process.



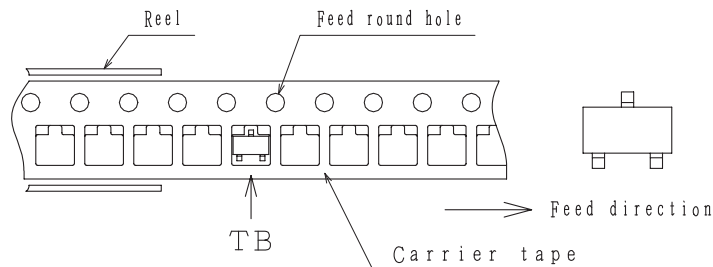
| Label       | JEITA Phase    |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3  |

2. Taping configuration

2-1. Carrier tape size (unit:mm)



2-2. Device placement direction



Those with one electrode terminal on the feed hole side.....TB

Outline Drawing

1SV251-TB-E



Land Pattern Example



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