



1SV233

PIN Diode

Single PIN Diode for VHF, UHF and AGC
50V, 50mA, $r_s = \text{typ } 5\Omega$, CP

ON Semiconductor®

<http://onsemi.com>

Features

- Very small-sized package facilitates high-density mounting and permits 1SV233-applied equipment to be made smaller
- Small interterminal capacitance ($C=0.23\text{pF typ}$)
- Small forward series resistance ($r_s=5\Omega \text{ typ}$)

Specifications

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

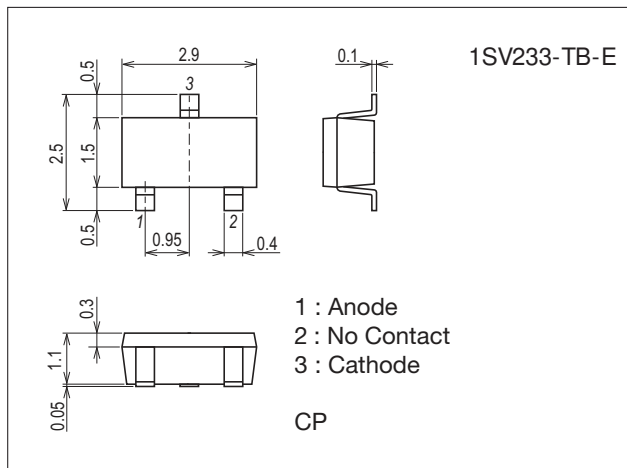
| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|------------|-------------|------------------|
| Reverse Voltage | V_R | | 50 | V |
| Forward Current | I_F | | 50 | mA |
| Allowable Power Dissipation | P | | 150 | mW |
| Junction Temperature | T_j | | 125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

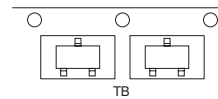
7013A-004



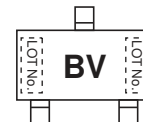
Product & Package Information

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

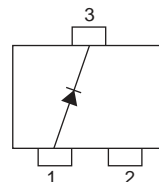
Packing Type: TB



Marking



Electrical Connection



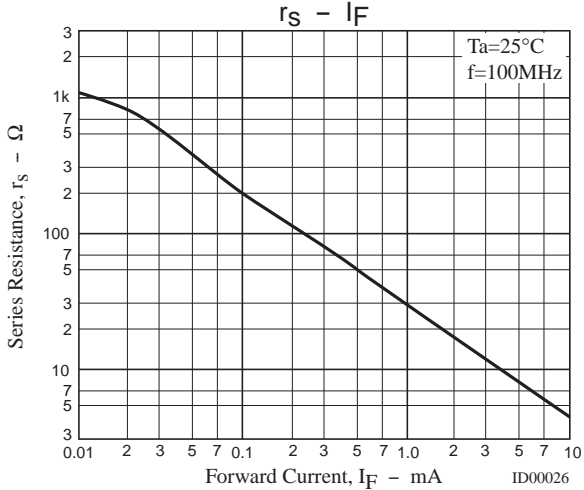
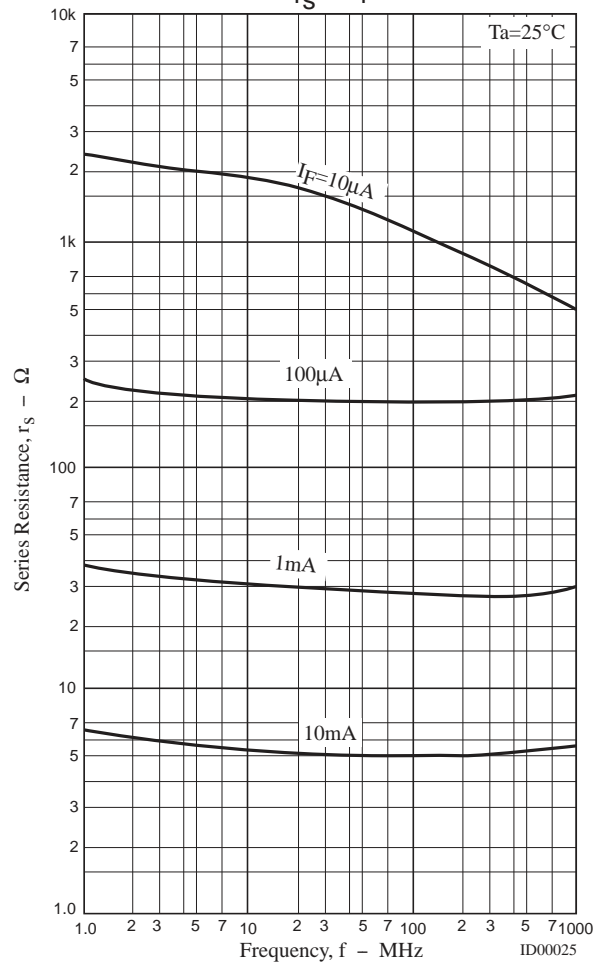
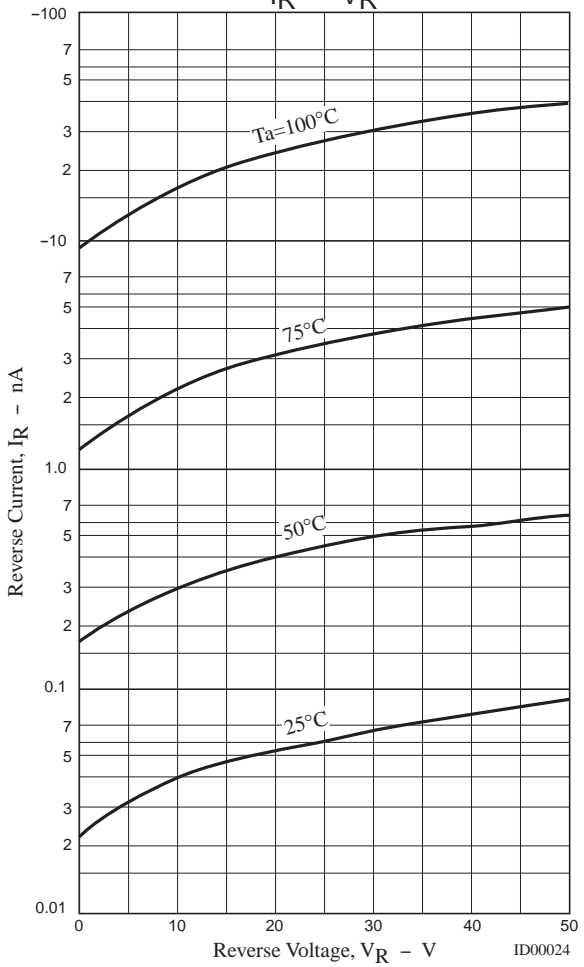
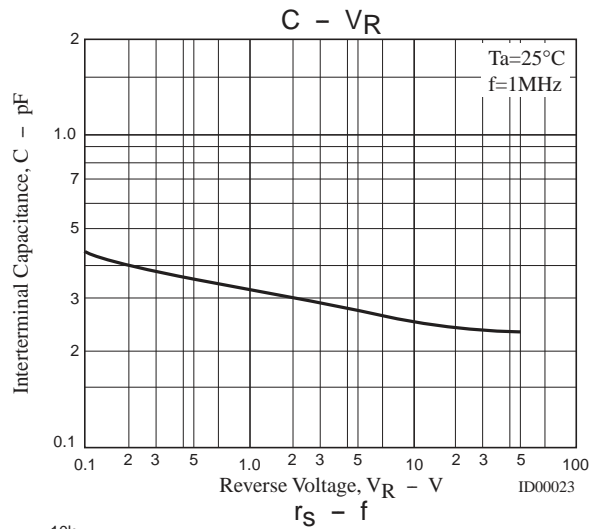
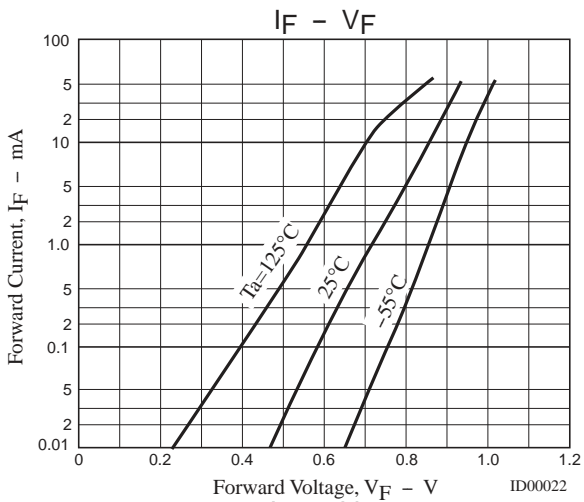
1SV233

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|----------------|--------------------------------|---------|------|-----|------|
| | | | min | typ | max | |
| Reverse Voltage | V _R | I _R =10μA | 50 | | | V |
| Reverse Current | I _R | V _R =50V | | | 0.1 | μA |
| Forward Voltage | V _F | I _F =50mA | | 0.95 | | V |
| Interterminal Capacitance | C | V _R =50V, f=1MHz | | 0.23 | | pF |
| Series Resistance | r _s | I _F =10mA, f=100MHz | | 5 | | Ω |

Ordering Information

| Device | Package | Shipping | memo |
|-------------|---------|----------------|---------|
| 1SV233-TB-E | CP | 3,000pcs./reel | Pb Free |



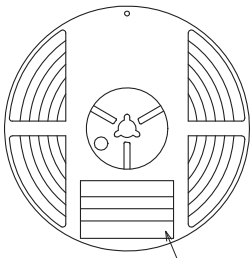
Embossed Taping Specification

1SV233-TB-E

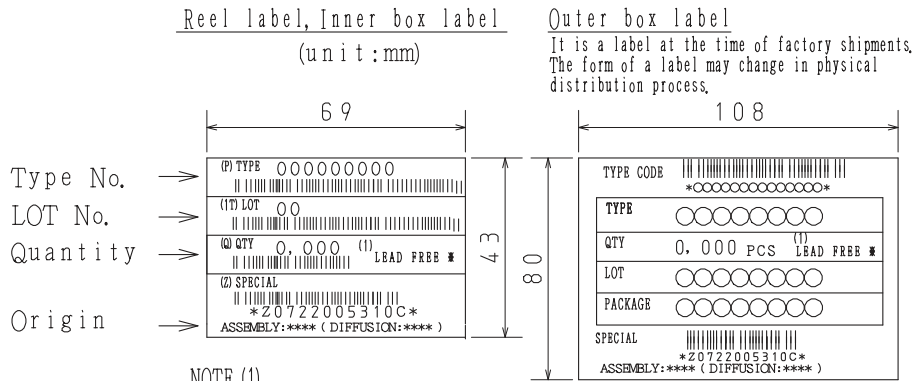
1. Packing Format

| 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 Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

Packing method



Reel label



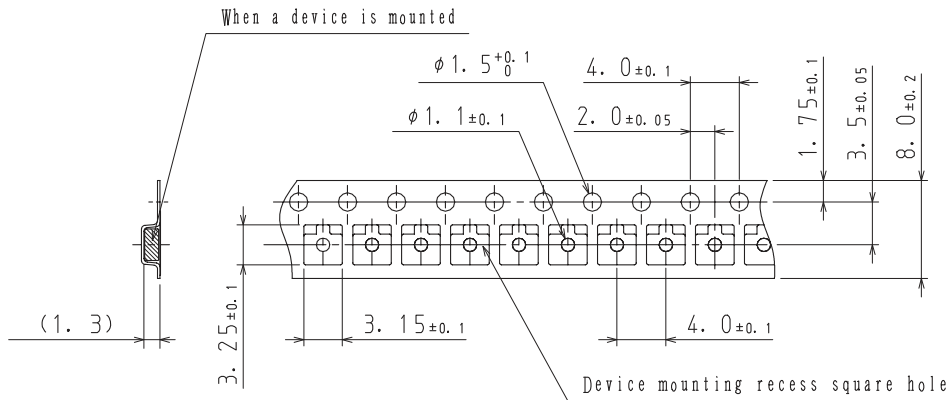
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

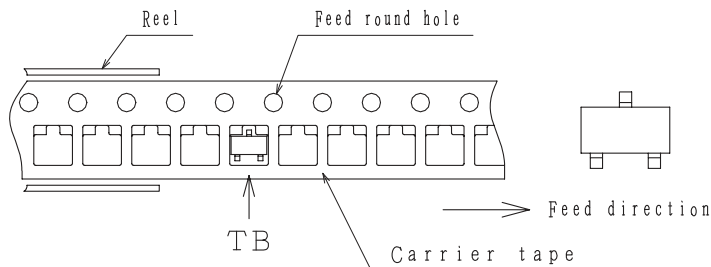
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



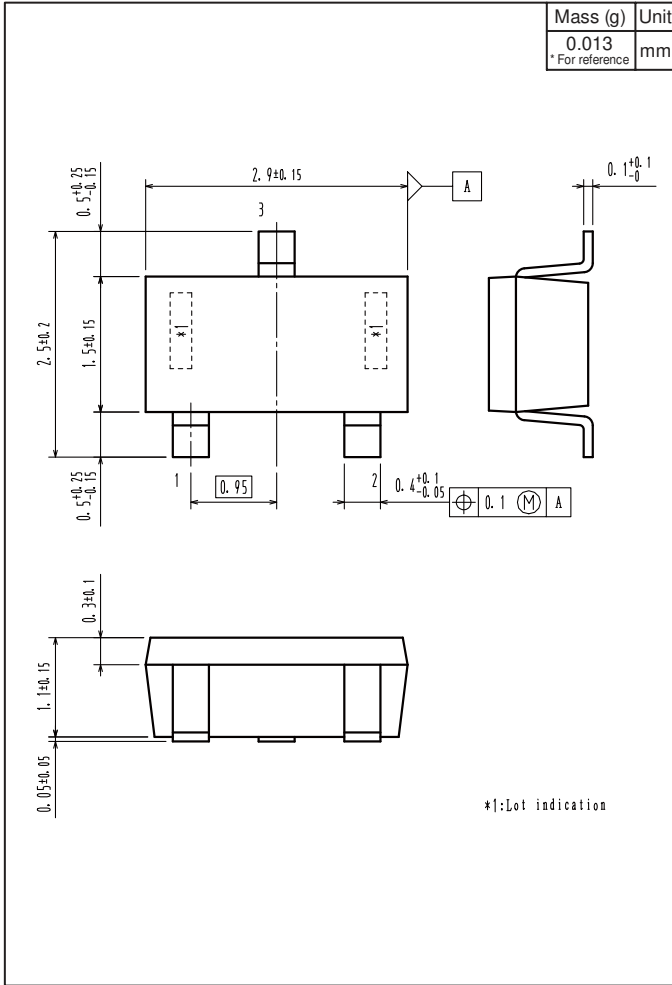
2-2. Device placement direction



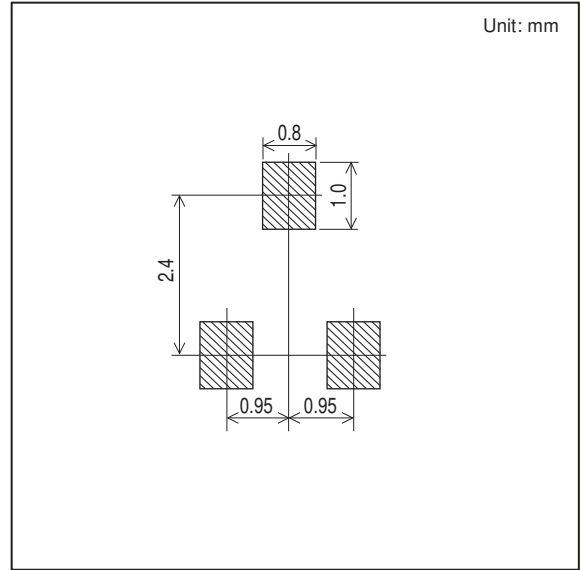
Those with one electrode terminal on the feed hole side.....TB

Outline Drawing

1SV233-TB-E



Land Pattern Example



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