



# 1SV233

## PIN Diode

### Single PIN Diode for VHF, UHF and AGC 50V, 50mA, $r_s$ =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 ( $r_s=5\Omega$  typ)

#### Specifications

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

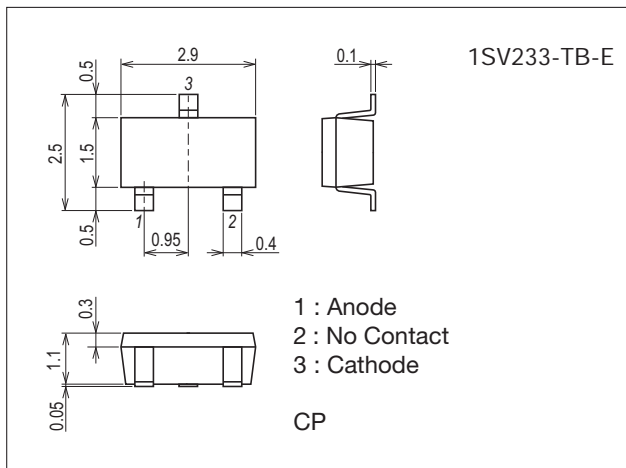
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		50	V
Forward Current	$I_F$		50	mA
Allowable Power Dissipation	P		150	mW
Junction Temperature	$T_j$		125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

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)

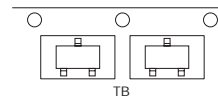
7013A-004



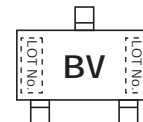
#### Product & Package Information

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

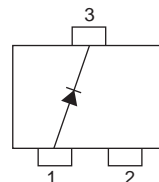
#### Packing Type: TB



#### Marking



#### Electrical Connection



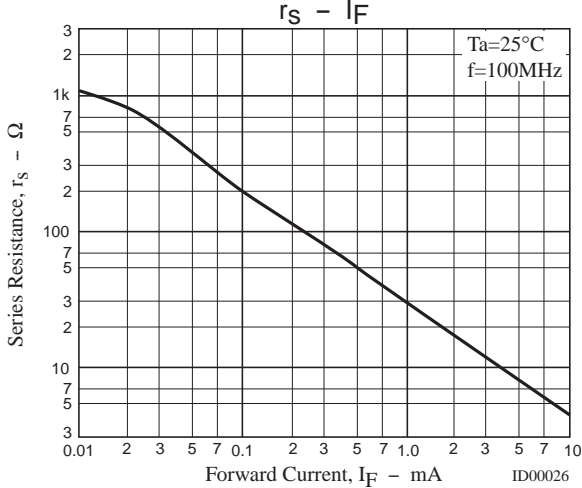
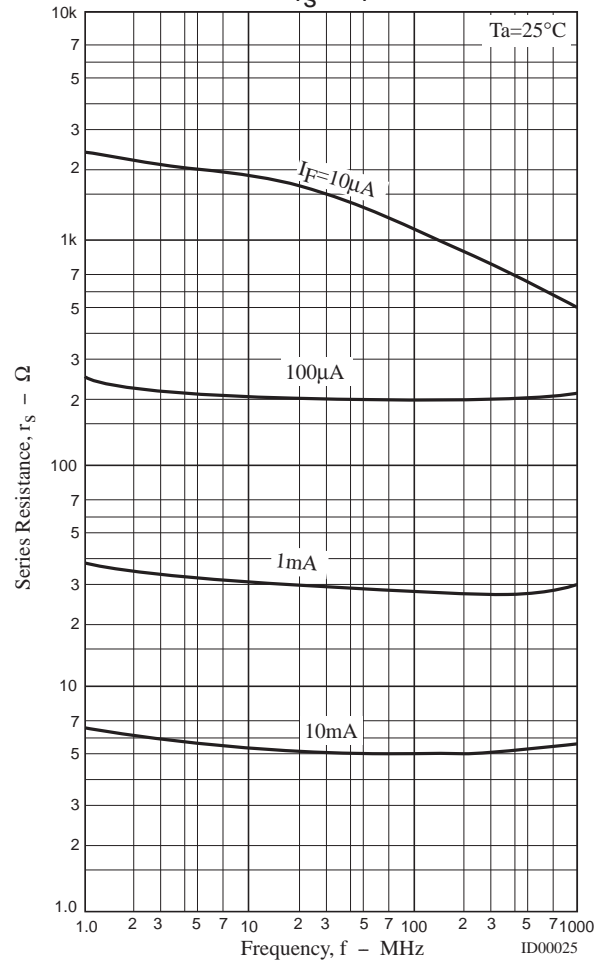
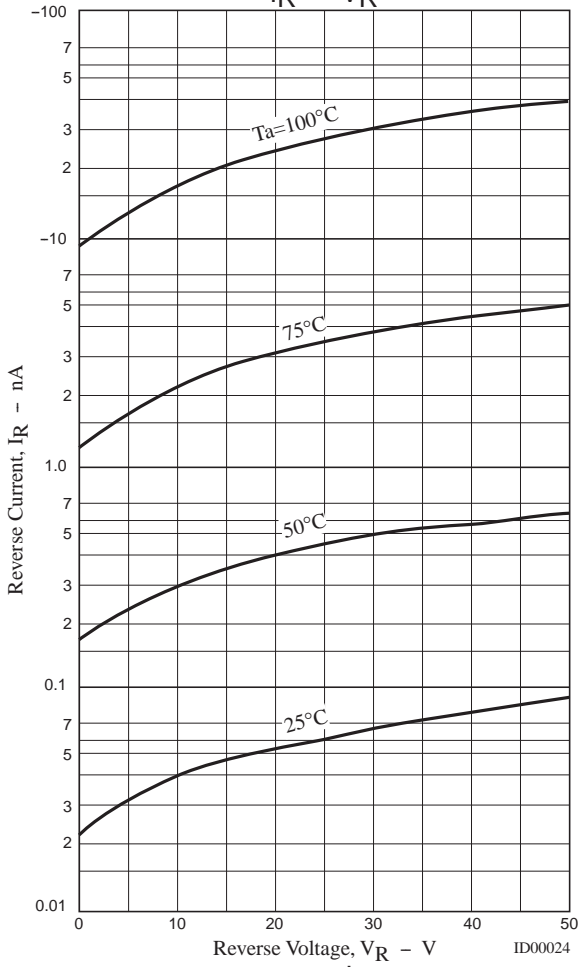
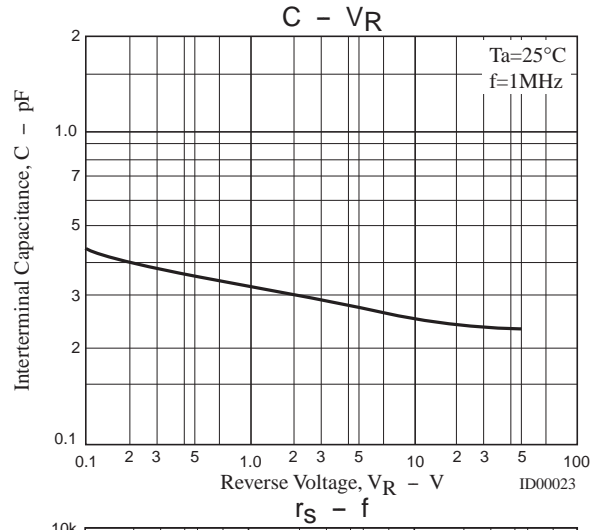
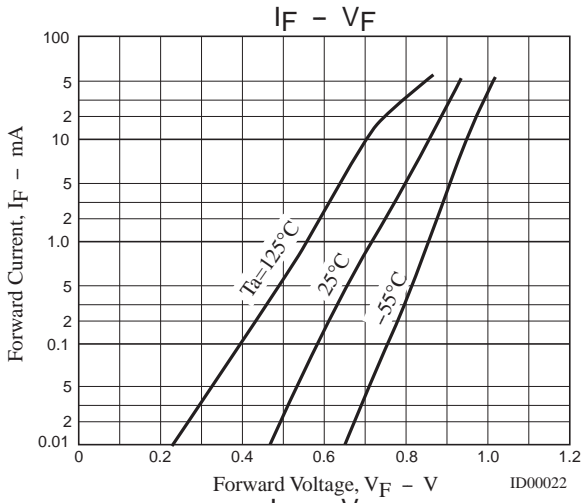
# 1SV233

## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <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		0.95		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		5		Ω

## Ordering Information

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



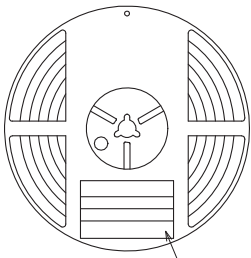
Embossed Taping Specification

1SV233-TB-E

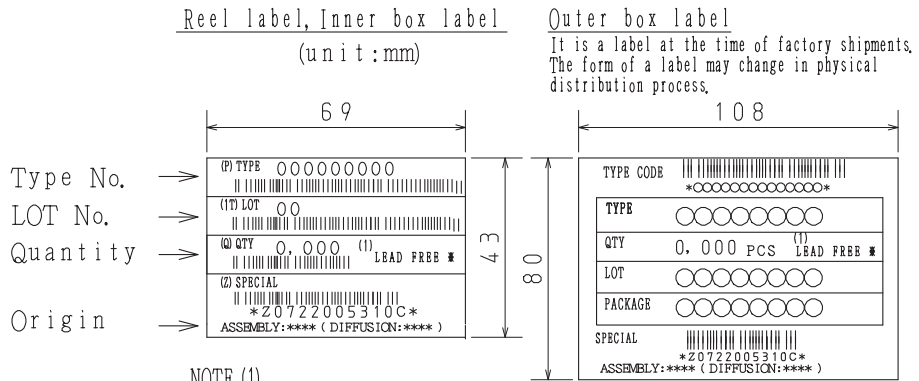
1. Packing Format

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



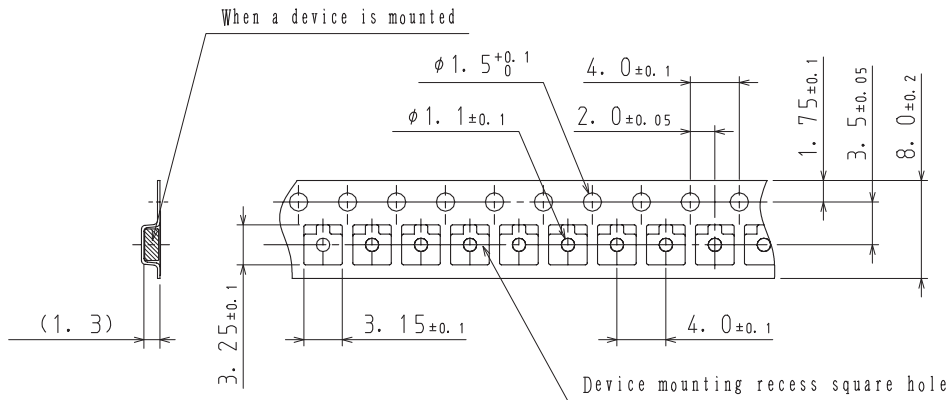
NOTE (1)

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

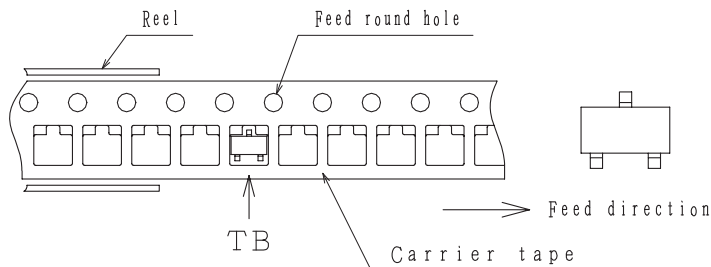
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



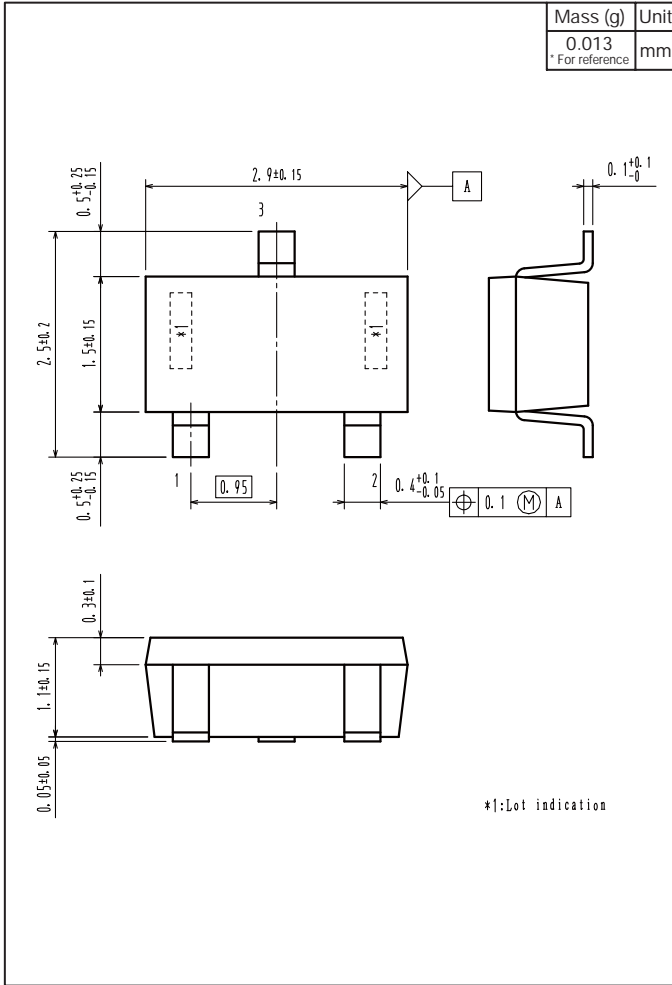
2-2. Device placement direction



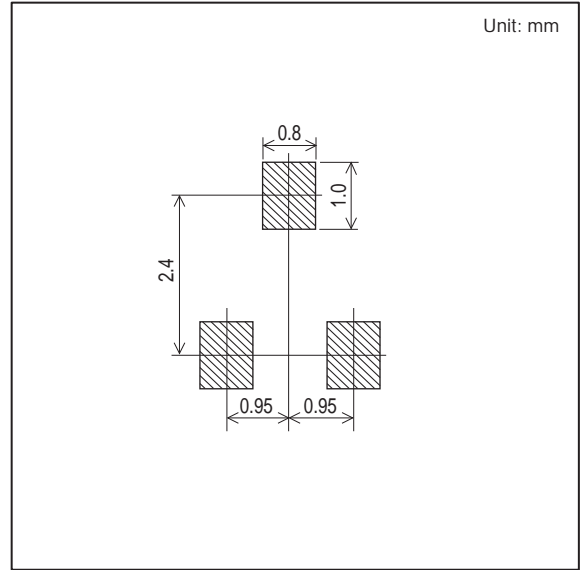
Those with one electrode terminal on the feed hole side.....TB

Outline Drawing

1SV233-TB-E



Land Pattern Example



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