



ON Semiconductor®

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1SV233

PIN Diode

Single PIN Diode for VHF, UHF and AGC
50V, 50mA, r_s =typ 5 Ω , CP

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 $T_a=25^\circ\text{C}$

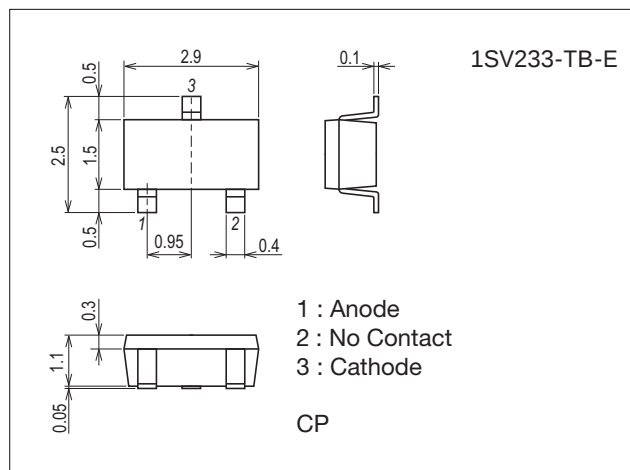
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		50	V
Forward Current	I_F		50	mA
Allowable Power Dissipation	P		150	mW
Junction Temperature	T_j		125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

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)

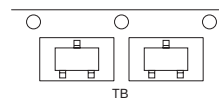
7013A-004



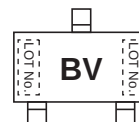
Product & Package Information

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

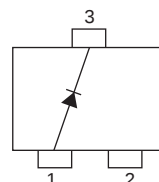
Packing Type: TB



Marking



Electrical Connection



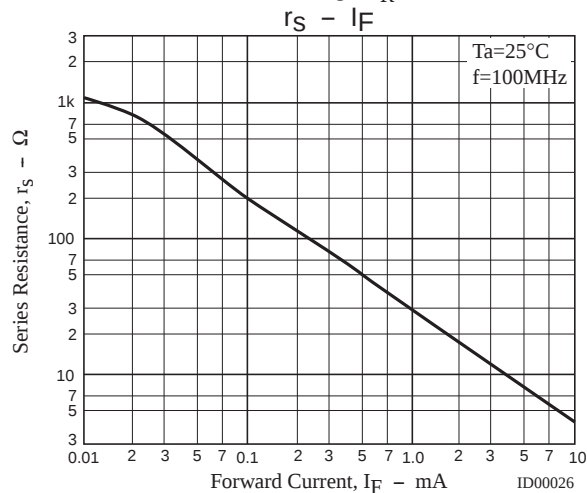
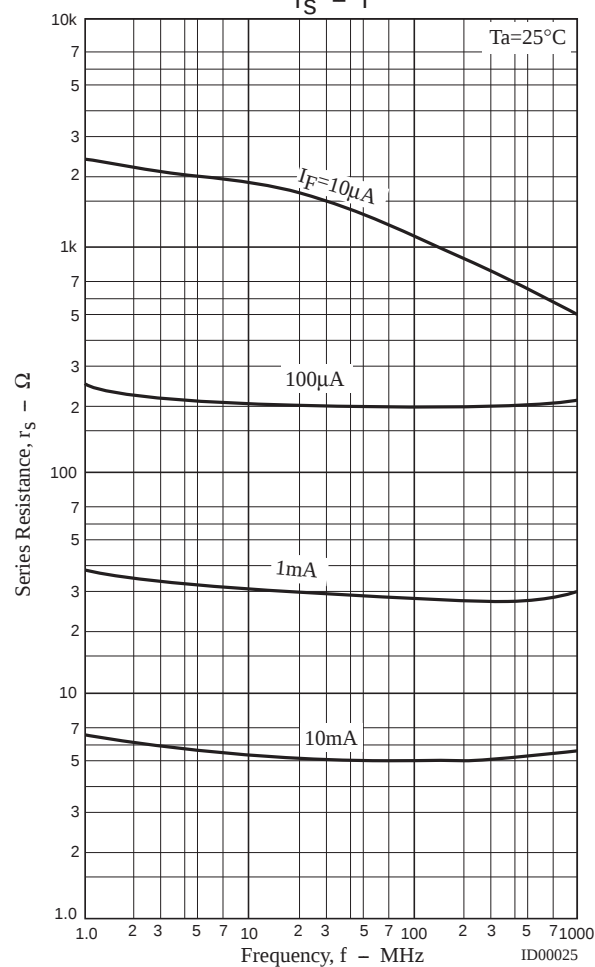
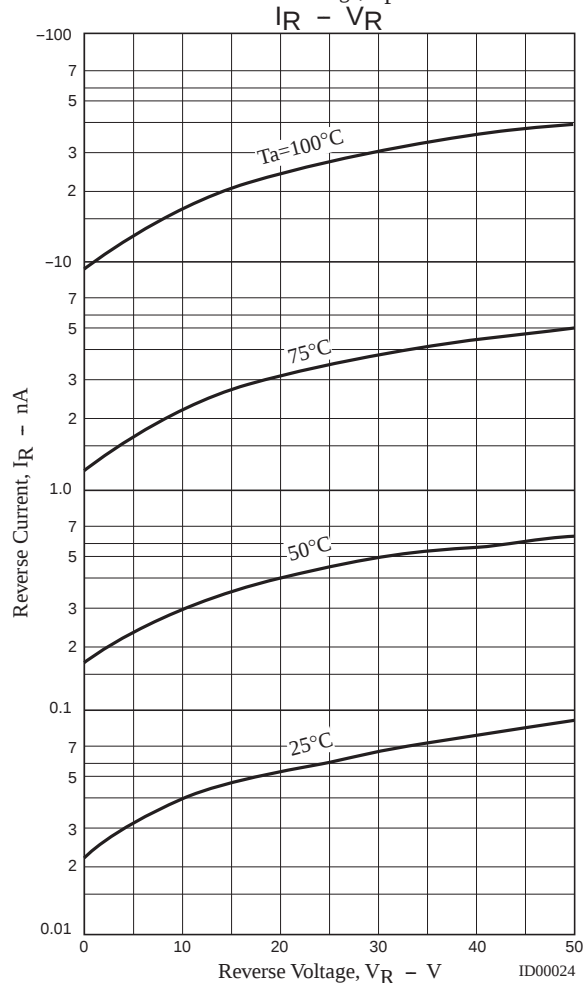
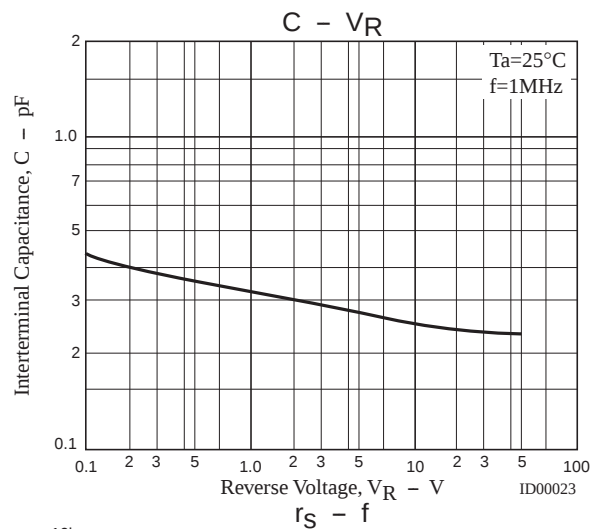
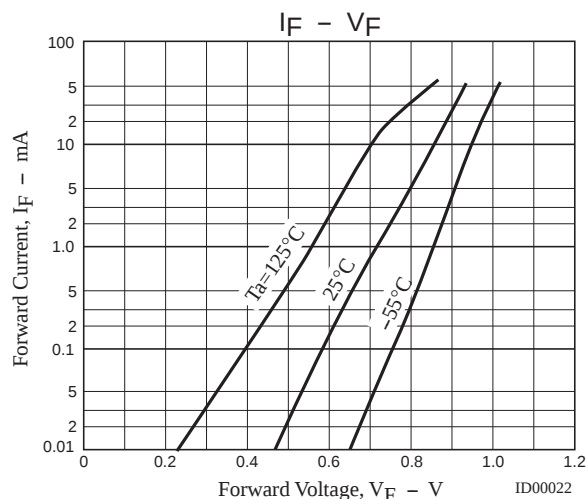
1SV233

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=10\mu A$	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



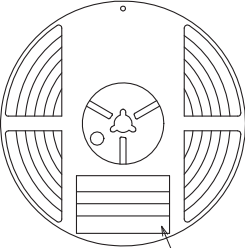
Embossed Taping Specification

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

Reel label, Inner box label (unit:mm)

Type No.	(P) TYPE 000000000
LOT No.	(17) LOT 00
Quantity	(Q) QTY 0,000 (1) LEAD FREE *
Origin	(S) SPECIAL *Z0722005310C* ASSEMBLY:**** (DIFFUSION:****)

Outer box label

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

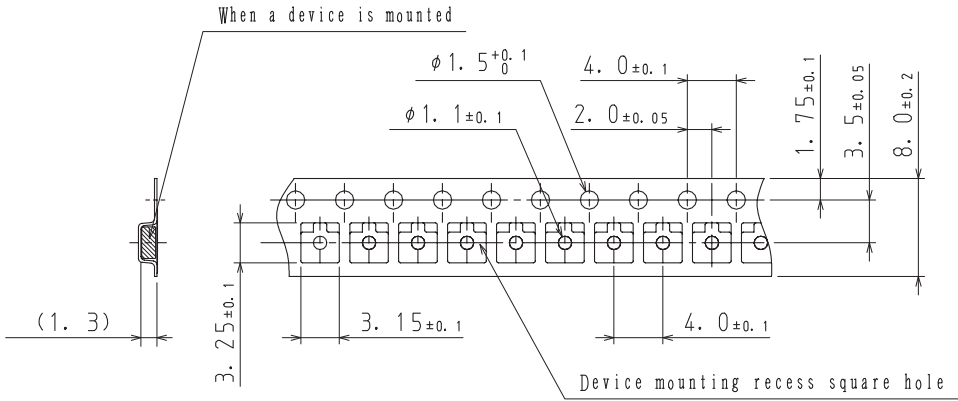
TYPE CODE	*000000000000*
TYPE	00000000
QTY	0,000 PCS (1) LEAD FREE *
LOT	00000000
PACKAGE	00000000
SPECIAL	*Z0722005310C* ASSEMBLY:**** (DIFFUSION:****)

NOTE (1)
The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

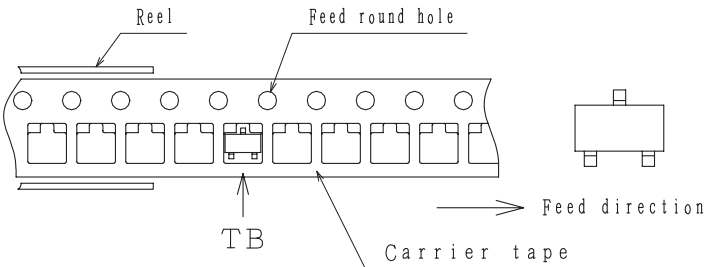
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

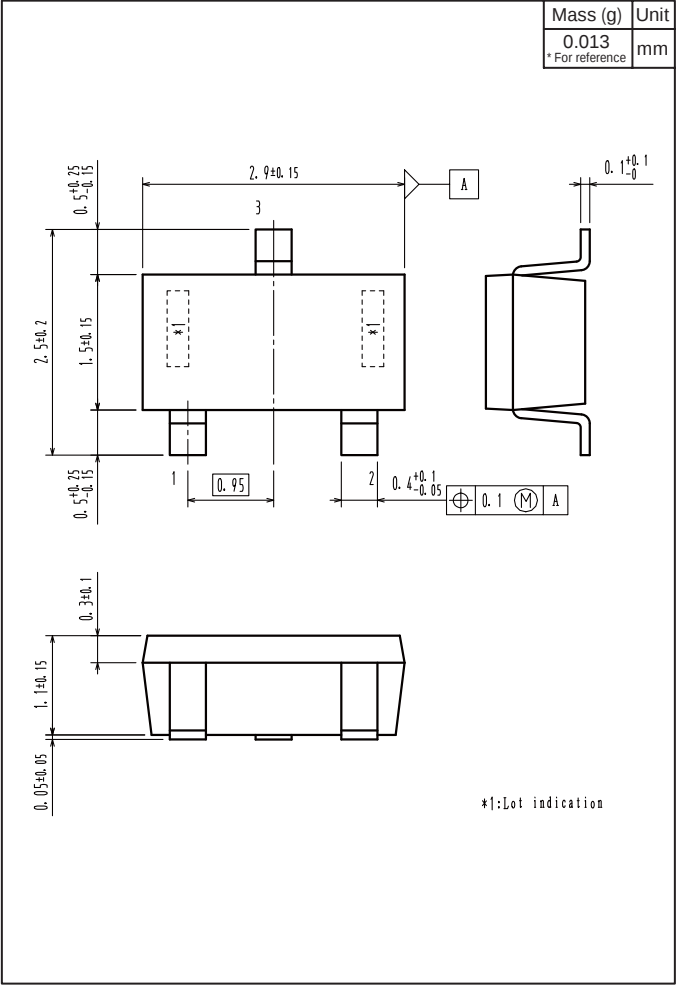


2-2. Device placement direction

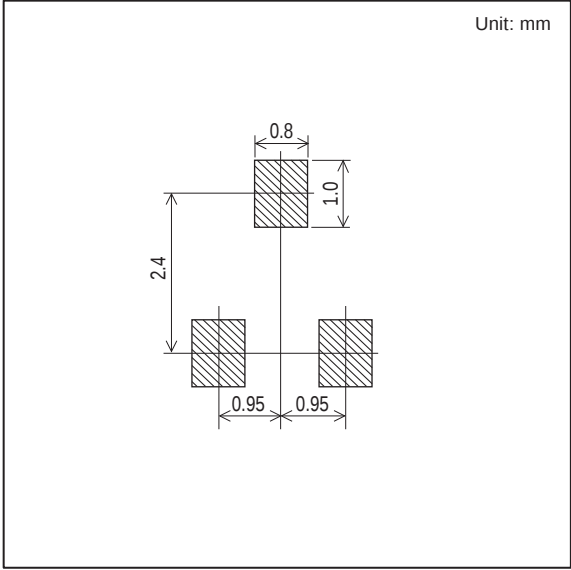


Those with one electrode terminal on the feed hole side.....TB

Outline Drawing
1SV233-TB-E



Land Pattern Example



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