Ordering number : EN3088C

1SV233

PIN Diode
Single PIN Diode for VHF, UHF and AGC
50V, 50mA, rs=typ 5Ω, 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=0.23pF typ)
- Small forward series resistance (rs=5Ω typ)

Specifications

Absolute Maximum Ratings at Ta=25°C

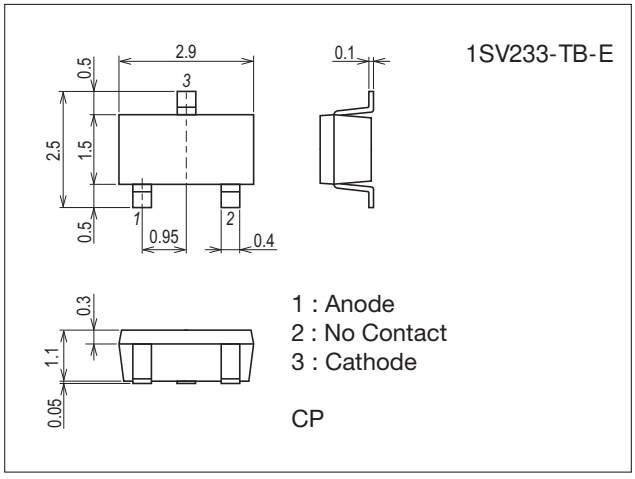
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		50	V
Forward Current	I_F		50	mA
Allowable Power Dissipation	P		150	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		−55 to +125	°C

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)

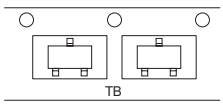
7013A-004



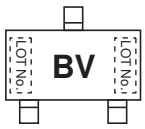
Product & Package Information

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

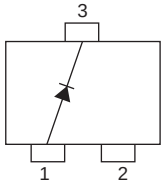
Packing Type: TB



Marking



Electrical Connection

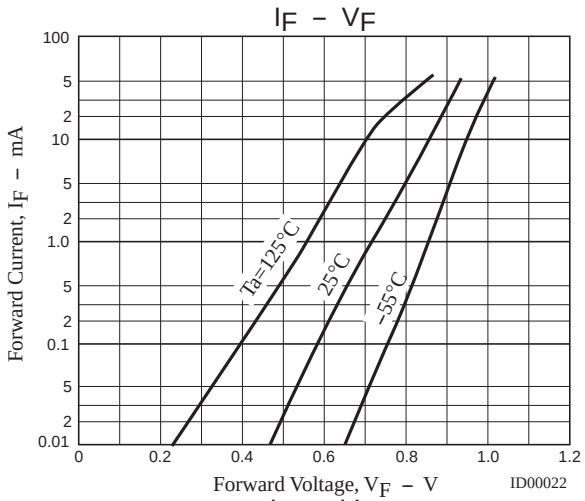


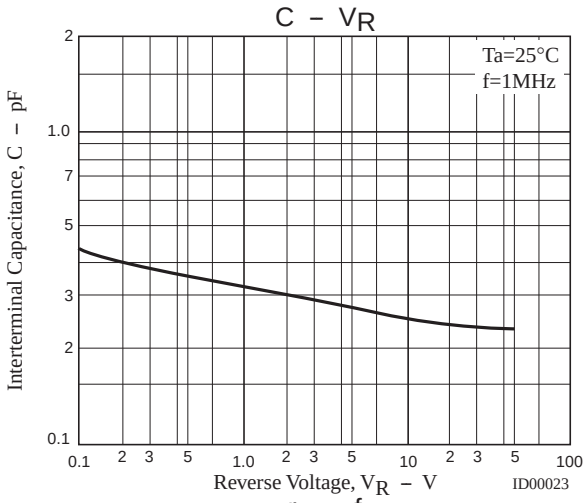
Electrical Characteristics at Ta=25°C

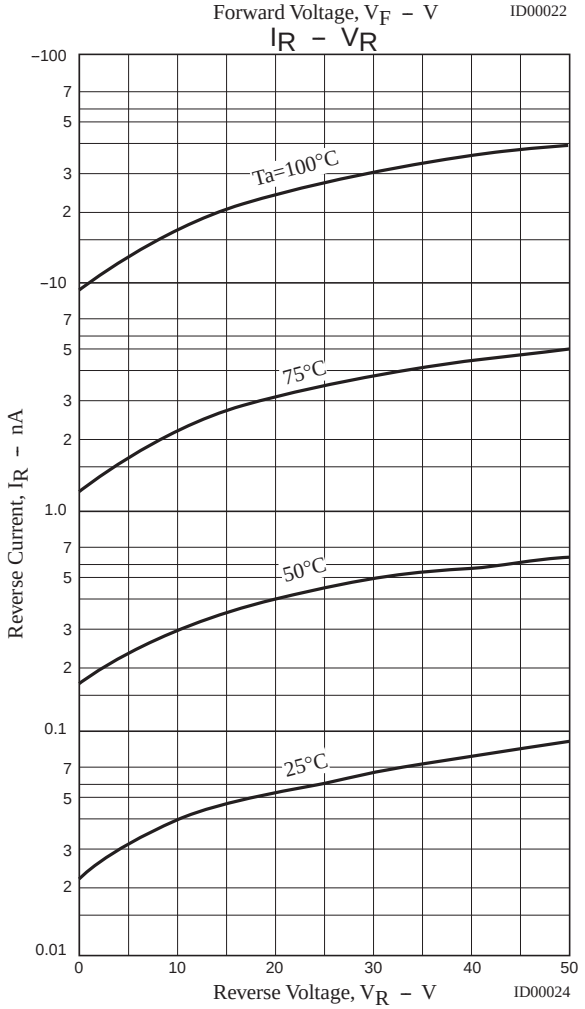
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=10μA	50			V
Reverse Current	I_R	V_R=50V			0.1	μA
Forward Voltage	V_F	I_F=50mA		0.95		V
Interterminal Capacitance	C	V_R=50V, f=1MHz		0.23		pF
Series Resistance	rs	I_F=10mA, f=100MHz		5		Ω

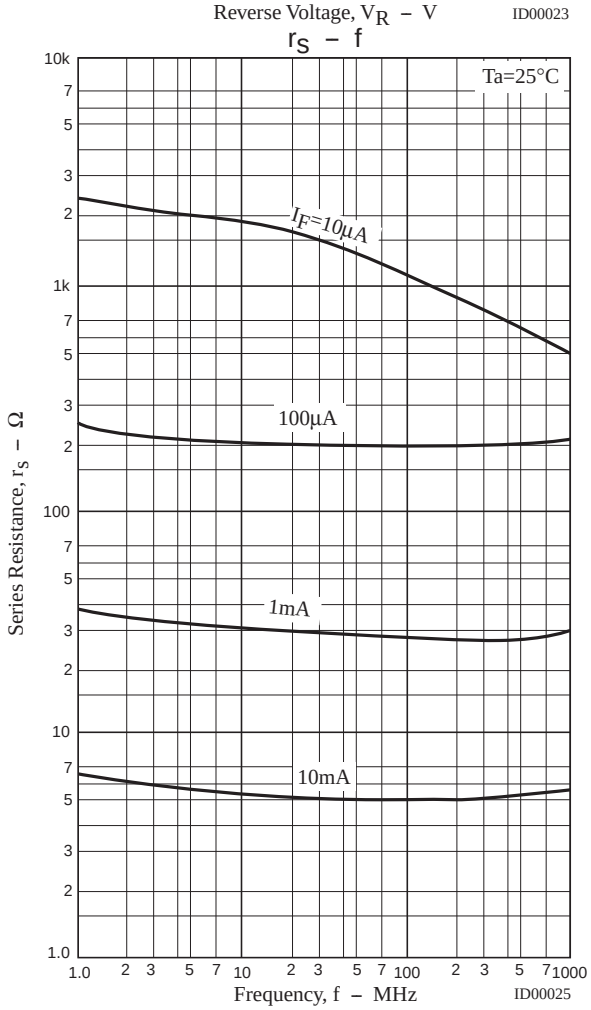
Ordering Information

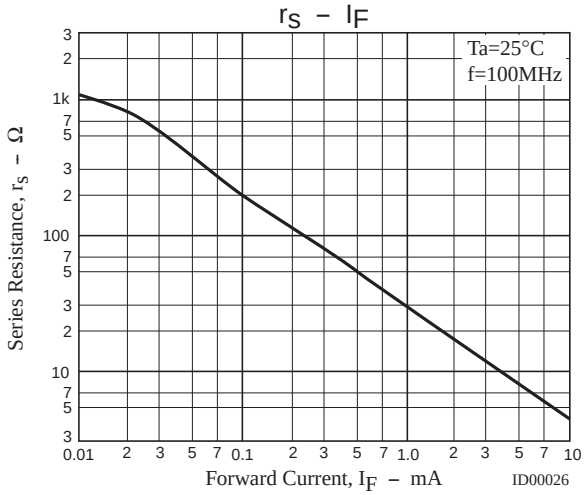
Device	Package	Shipping	memo
1SV233-TB-E	CP	3,000pcs./reel	Pb Free


IF – VF
Forward Current, IF – mA
Forward Voltage, VF – V
Ta=125°C
25°C
–55°C
ID00022


C – VR
Interterminal Capacitance, C – pF
Reverse Voltage, VR – V
Ta=25°C
f=1MHz
ID00023


IR – VR
Reverse Current, IR – nA
Reverse Voltage, VR – V
Ta=100°C
75°C
50°C
25°C
ID00024


rS – f
Series Resistance, rS – Ω
Frequency, f – MHz
Ta=25°C
IF=10μA
100μA
1mA
10mA
ID00025


rS – IF
Series Resistance, rS – Ω
Forward Current, IF – mA
Ta=25°C
f=100MHz
ID00026

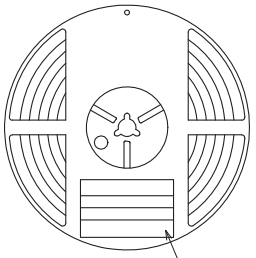
Embossed Taping Specification

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

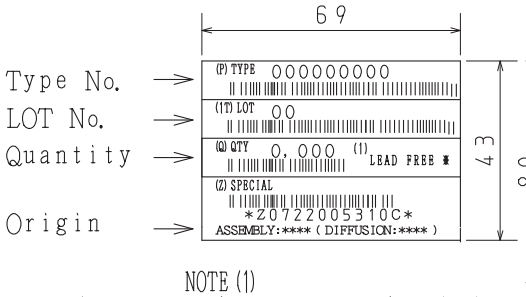
Packing method



Reel label

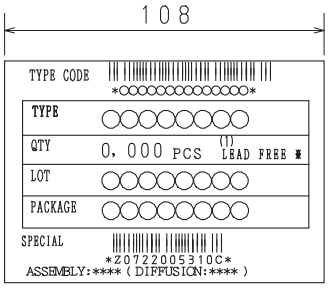
Reel label, Inner box label

(unit:mm)



Outer box label

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

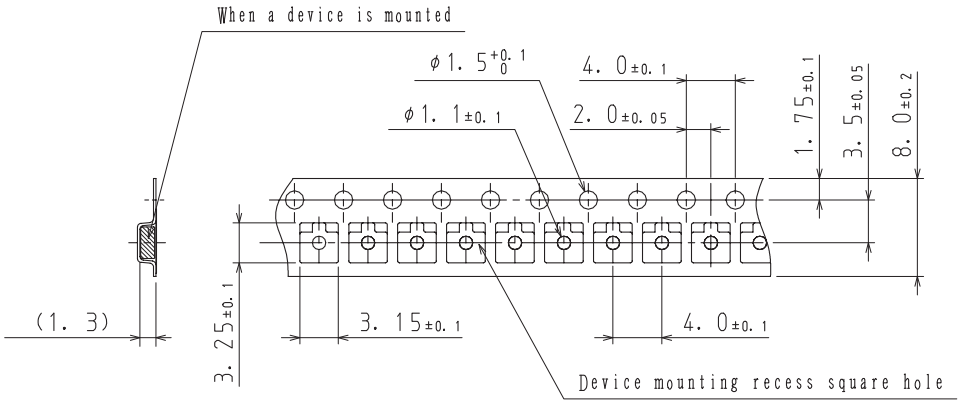


NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

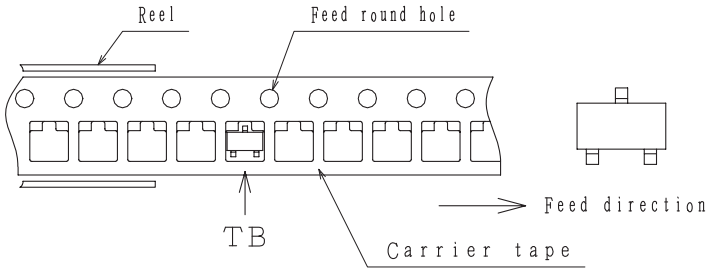
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



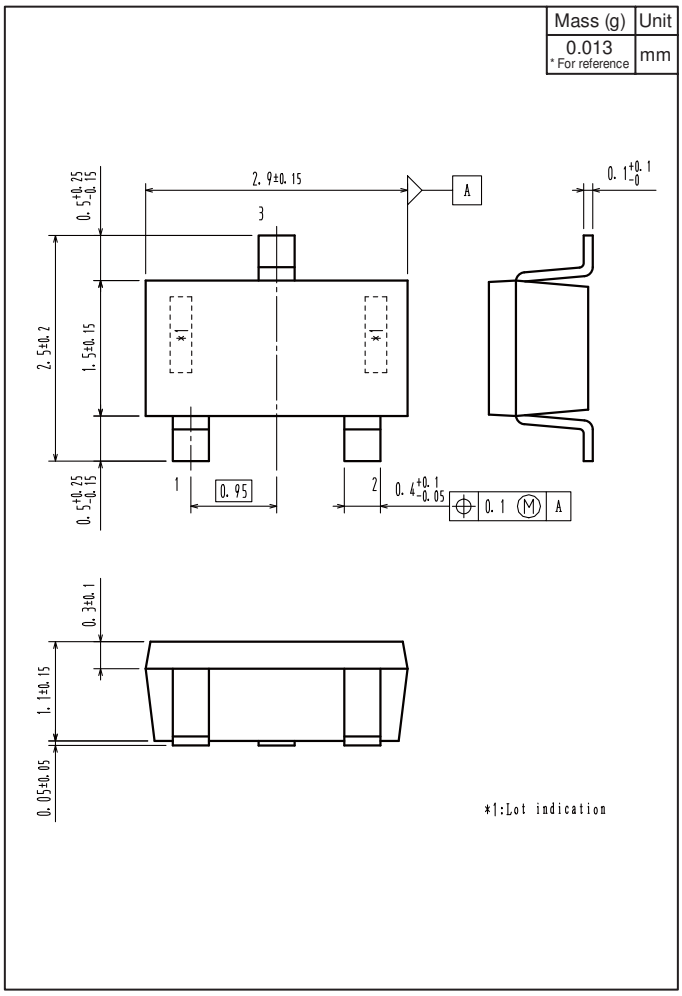
2-2. Device placement direction



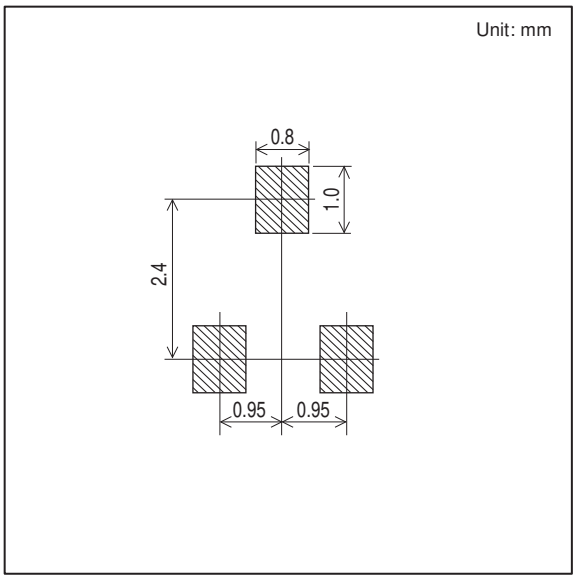
Those with one electrode terminal on the feed hole side……TB

Outline Drawing

1SV233-TB-E



Land Pattern Example



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