



# SVC236

## Varactor Diode

### Monolithic dual Varactor Diode for FM Tuning 16V, 50nA, $C_R=5.0$ , $Q=70$ , CP

ON Semiconductor®

<http://onsemi.com>

#### Features

- Low voltage (6.5V)
- Twin type varactor diode with good large-signal characteristics for FM receiver electronic tuning use
- Very small package permits SVC236-applied sets to be compact and slim
- Can be also provided in tape reel package and automatic insertion is supported
- High capacitance ratio ( $V_R=1.0$  to 6.5V)

#### Specifications

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

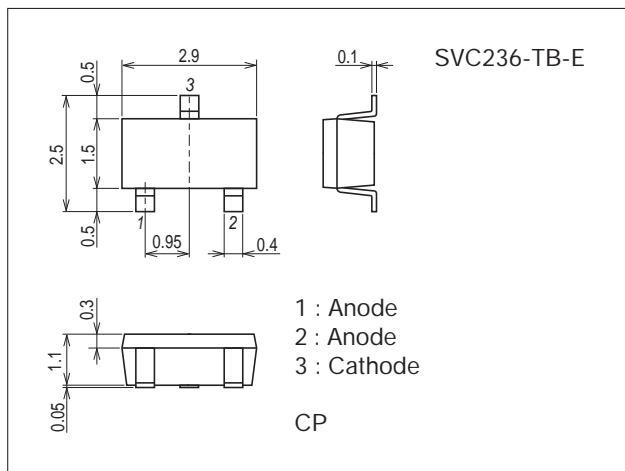
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_j$		125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

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)

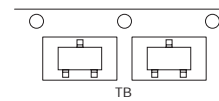
7013A-006



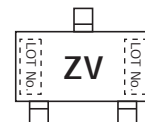
#### Product & Package Information

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

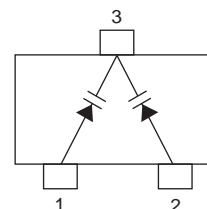
#### Packing Type: TB



#### Marking



#### Electrical Connection



# SVC236

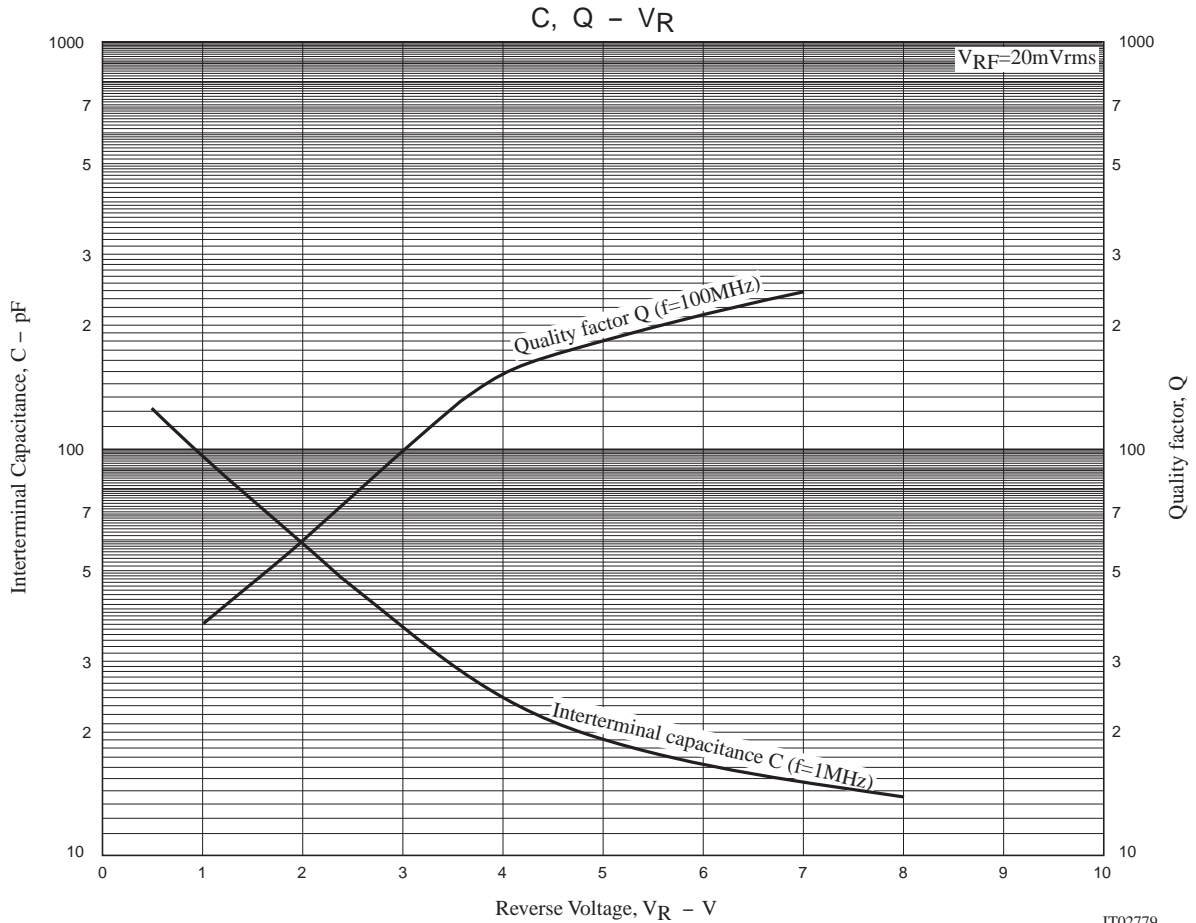
## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V(BR)R	I <sub>R</sub> =10μA	16			V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =10V			50	nA
Interterminal Capacitance *	C1V	V <sub>R</sub> =1.0V, f=1MHz *	92.07		102.12	pF
	C3.0V	V <sub>R</sub> =3.0V, f=1MHz	35.14		41.98	pF
	C6.5V	V <sub>R</sub> =6.5V, f=1MHz	14.44		16.84	pF
Quality Factor	Q	V <sub>R</sub> =3.0V, f=100MHz	70			
Capacitance Ratio	C <sub>R</sub>	C1.0V / C6.5V	5.0			
Matching Tolerance	ΔC <sub>m</sub>	V <sub>R</sub> =1.0V, 3.0, 6.5, f=1MHz, (C <sub>max</sub> ×C <sub>min</sub> ) / C <sub>min</sub> ×100			3.0	%

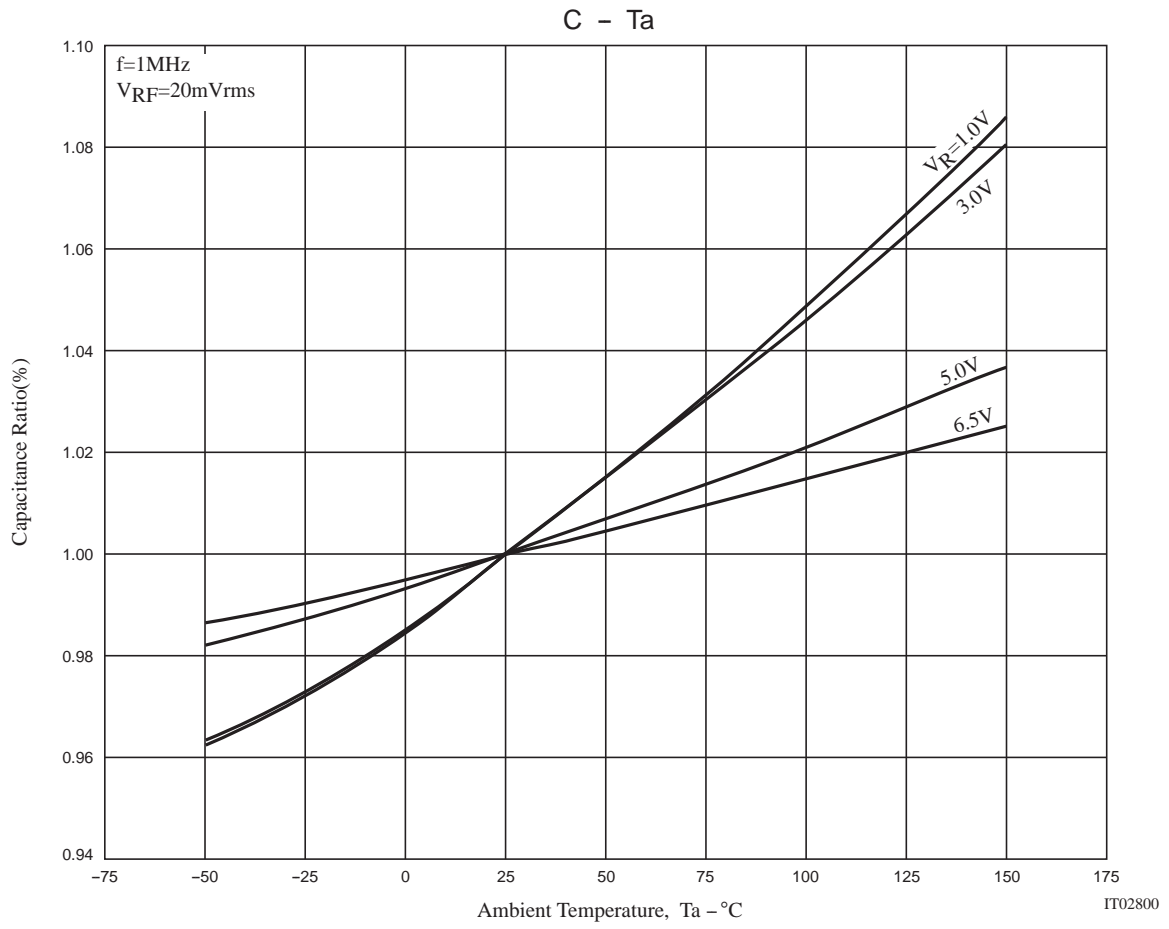
Note) \* : Capacitance value per each diode. \* : 1MHz signal : 20mVrms

## Ordering Information

Device	Package	Shipping	memo
SVC236-TB-E	CP	3,000pcs./reel	Pb Free



# SVC236



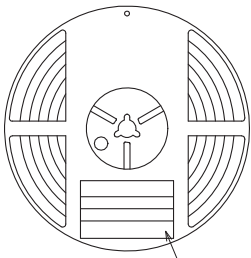
Taping Specification

SVC236-TB-E

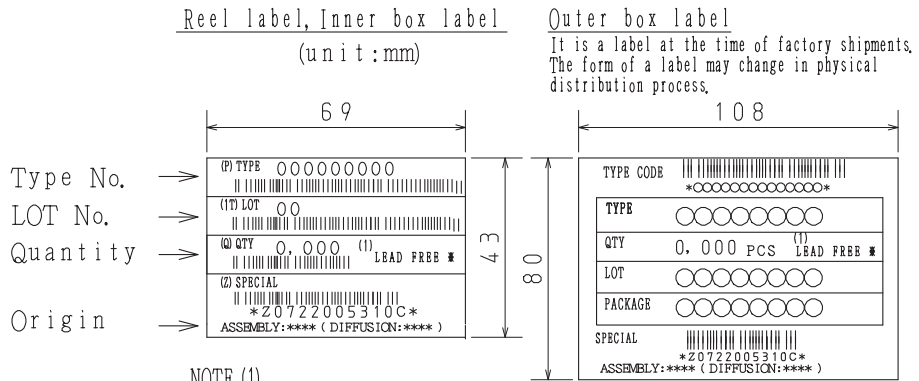
1. Packing Format

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



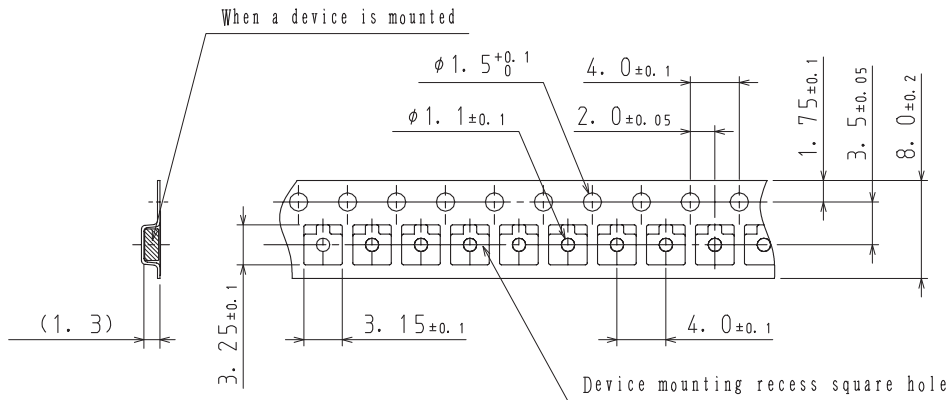
NOTE (1)

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

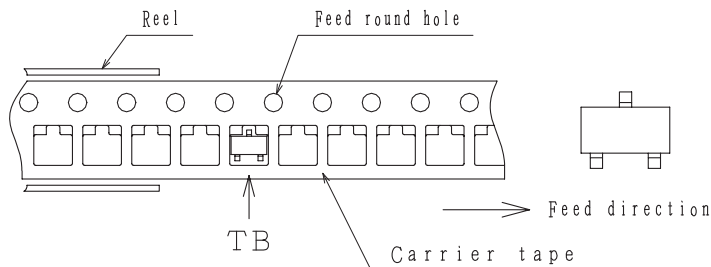
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



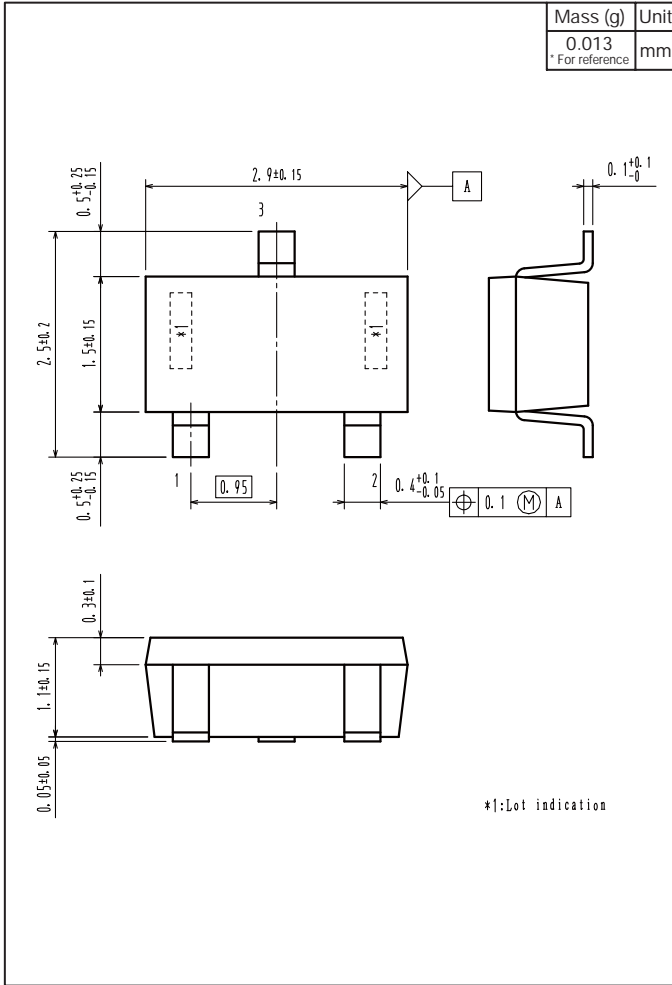
2-2. Device placement direction



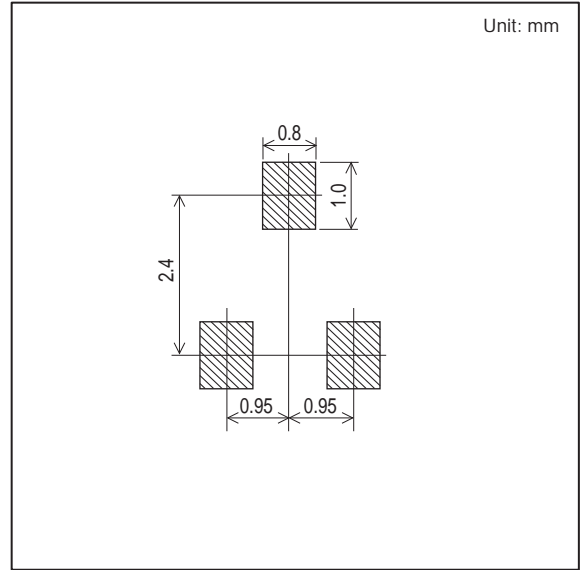
Those with one electrode terminal on the feed hole side.....TB

Outline Drawing

SVC236-TB-E



Land Pattern Example



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