

## SVC236 — Diffused Junction Type Silicon Diode Varactor Diode for FM Receiver Electronic Tuning Use

### 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

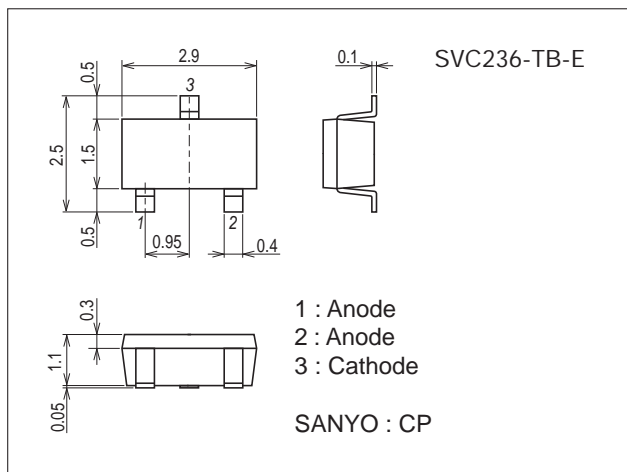
#### Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

| 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 | $^\circ\text{C}$ |

### Package Dimensions

unit : mm (typ)

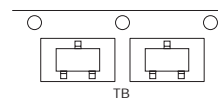
7013A-006



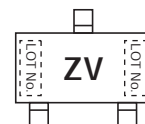
### Product & Package Information

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

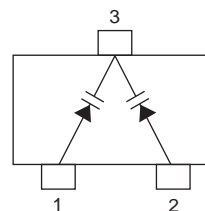
### Packing Type: TB



### Marking



### Electrical Connection



# SVC236

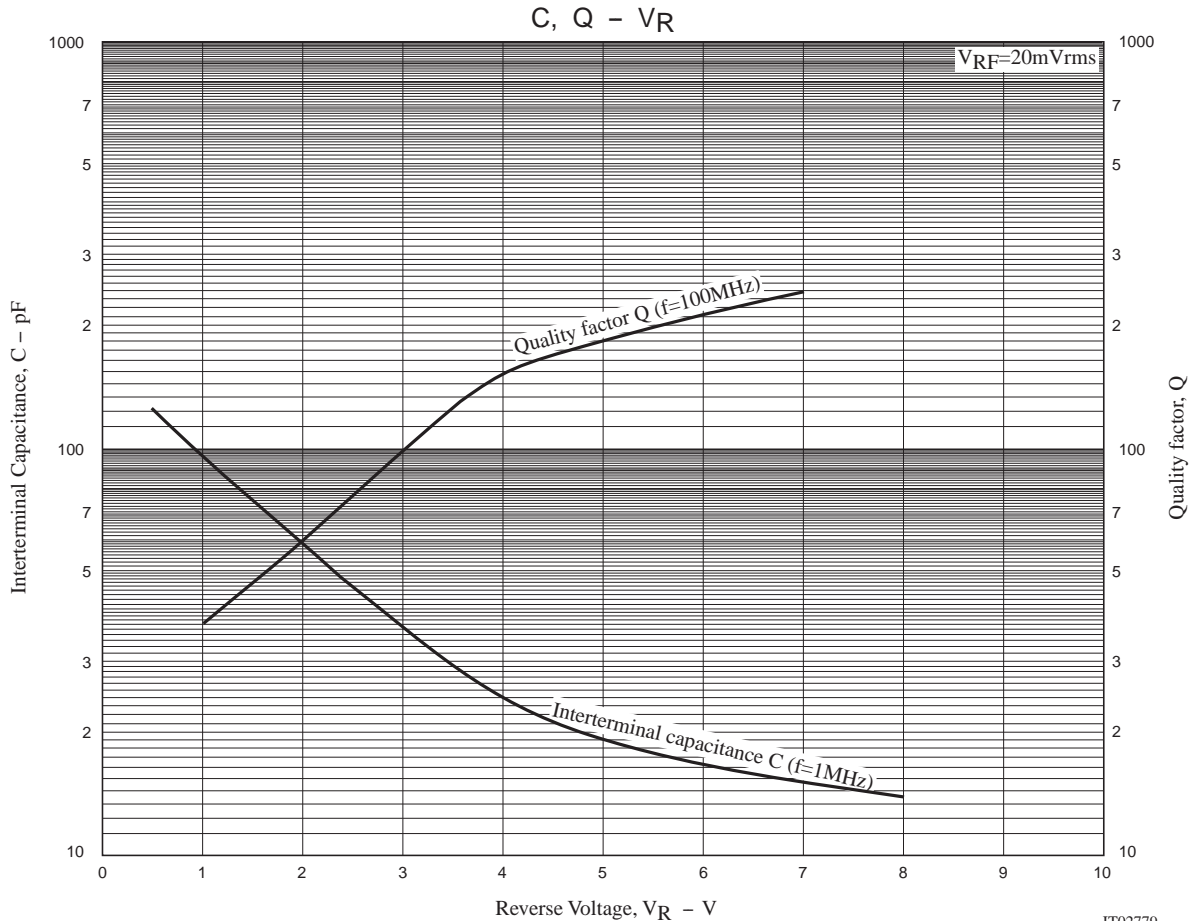
## Electrical Characteristics at Ta=25°C

| 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

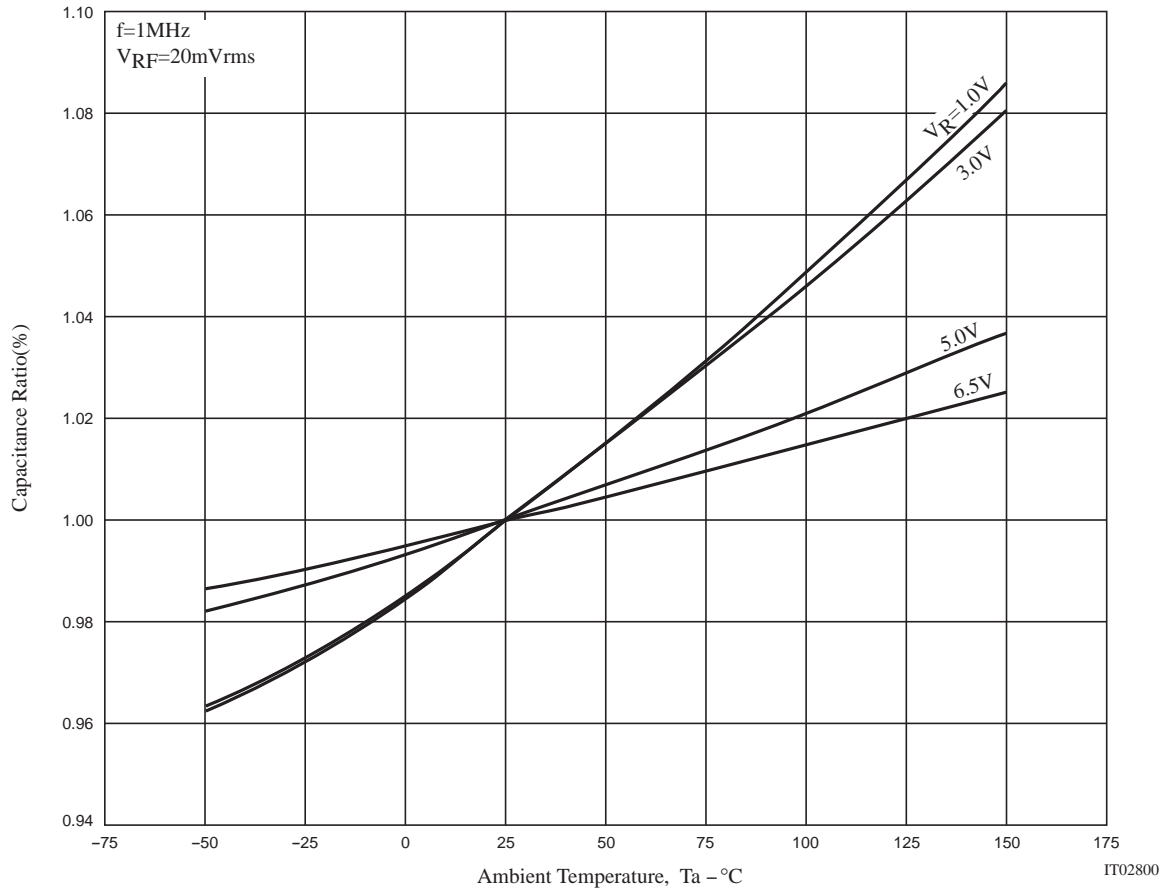
| Device      | Package | Shipping       | memo    |
|-------------|---------|----------------|---------|
| SVC236-TB-E | CP      | 3,000pcs./reel | Pb Free |



IT02779

# SVC236

C - Ta



IT02800

Taping Specification

SVC236-TB-E

1. Packing Format

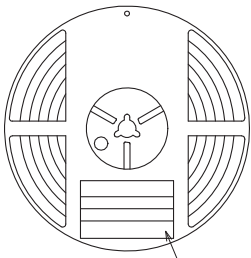
| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) |           |           | Packing format  |  |
|--------------|-------------------|---|-----------|-----------|---|--|
|              |                   | Reel                                      | Inner box | Outer box | Inner BOX (C-1)   | Outer BOX (A-7)  |
| CP           | CP                | 3,000                                     | 15,000    | 90,000    | 5 reels contained<br>Dimensions:mm (external)<br>183×72×185 | 6 inner boxes contained<br>Dimensions:mm (external)<br>440×195×210 |

Reel label, Inner box label  
(unit:mm)

Outer box label

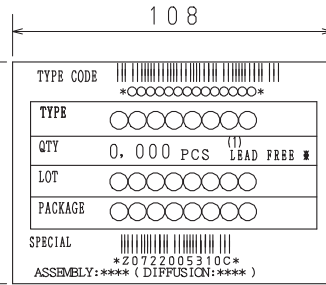
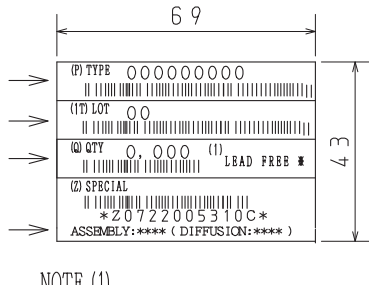
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No.  
LOT No.  
Quantity  
Origin



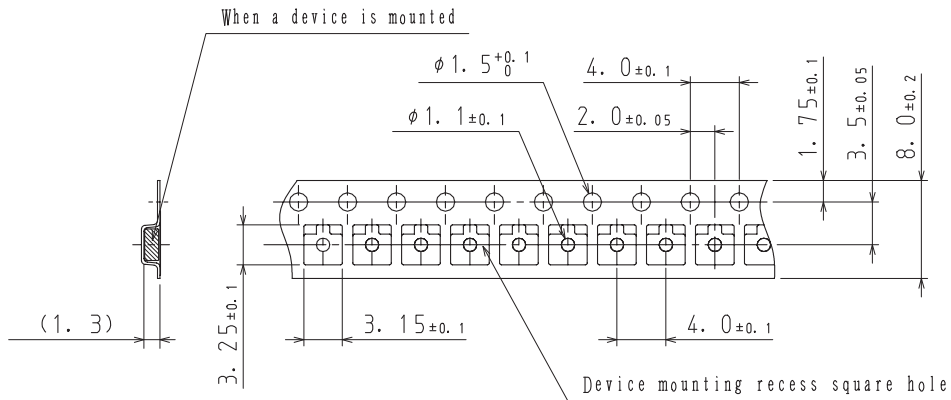
NOTE (1)

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

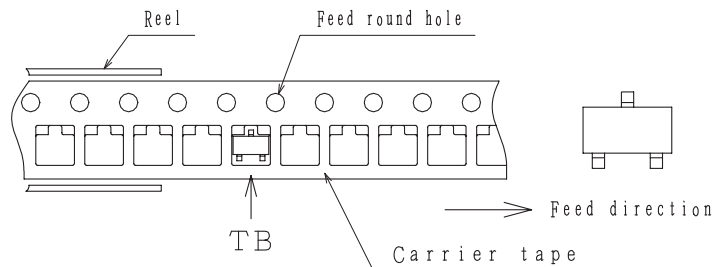
| Label       | JEITA Phase    |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3  |

2. Taping configuration

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



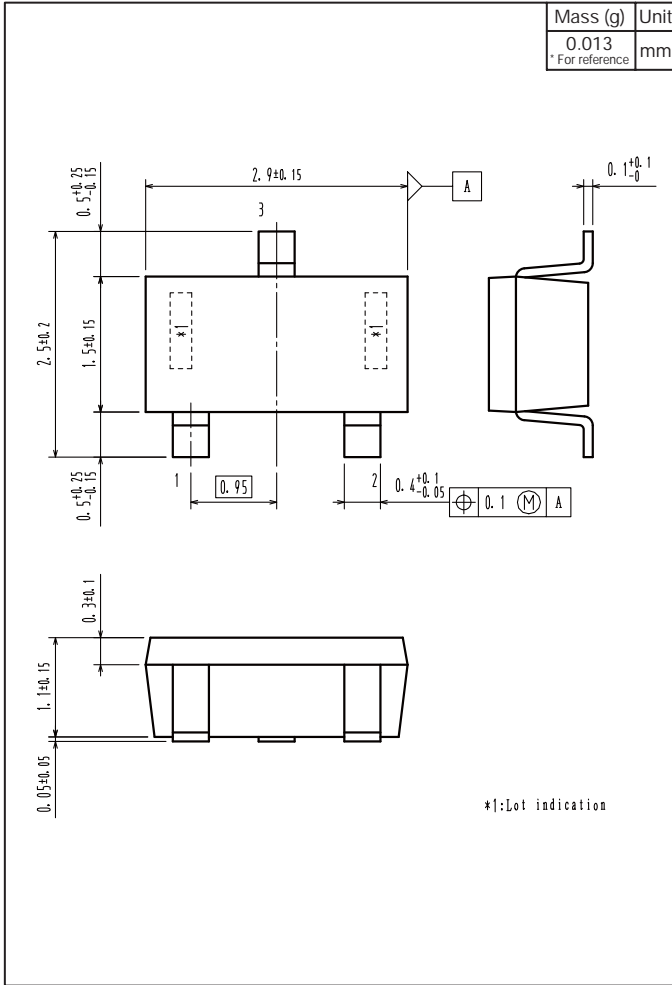
2-2. Device placement direction



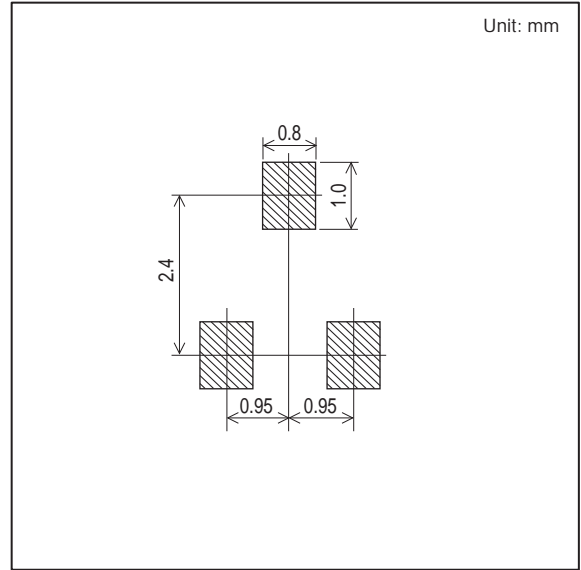
Those with one electrode terminal on the feed hole side.....TB

Outline Drawing

SVC236-TB-E



Land Pattern Example



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