



# SVC270 — Diffused Junction Type Silicon Diode Varactor Diode for FM Receiver Electronic Tuning Applications

## Features

- Twin type varactor diode having an excellent large input characteristic, for use in FM electronic tuning applications
- Small MCPH package permits SVC270-applied sets to be compact and slim
- Possible to be shipped in tape reel packaging, which facilitates automatic insertion
- High Q

## Specifications

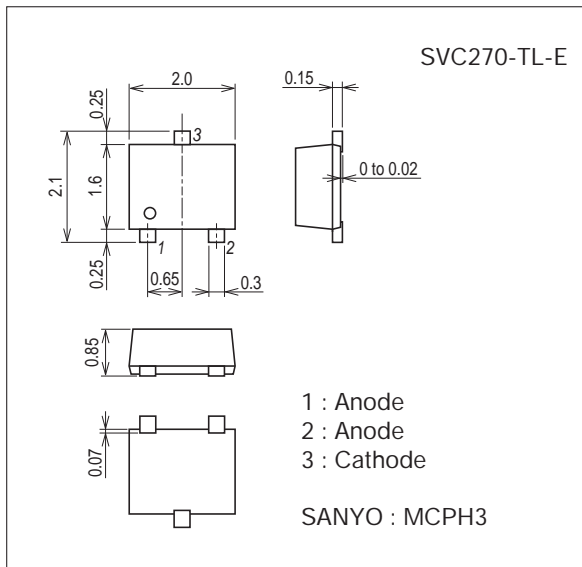
### Absolute Maximum Ratings at Ta=25°C

| Parameter            | Symbol    | Conditions | Ratings     | Unit |
|----------------------|-----------|------------|-------------|------|
| Reverse Voltage      | $V_R$     |            | 16          | V    |
| Junction Temperature | $T_j$     |            | 150         | °C   |
| Storage Temperature  | $T_{stg}$ |            | -55 to +150 | °C   |

## Package Dimensions

unit : mm (typ)

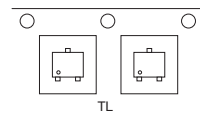
7019A-002



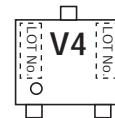
## Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

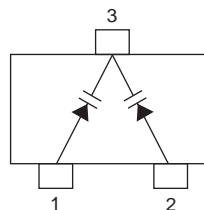
## Packing Type : TL



## Marking



## Electrical Connection



# SVC270

## Electrical Characteristics at Ta=25°C

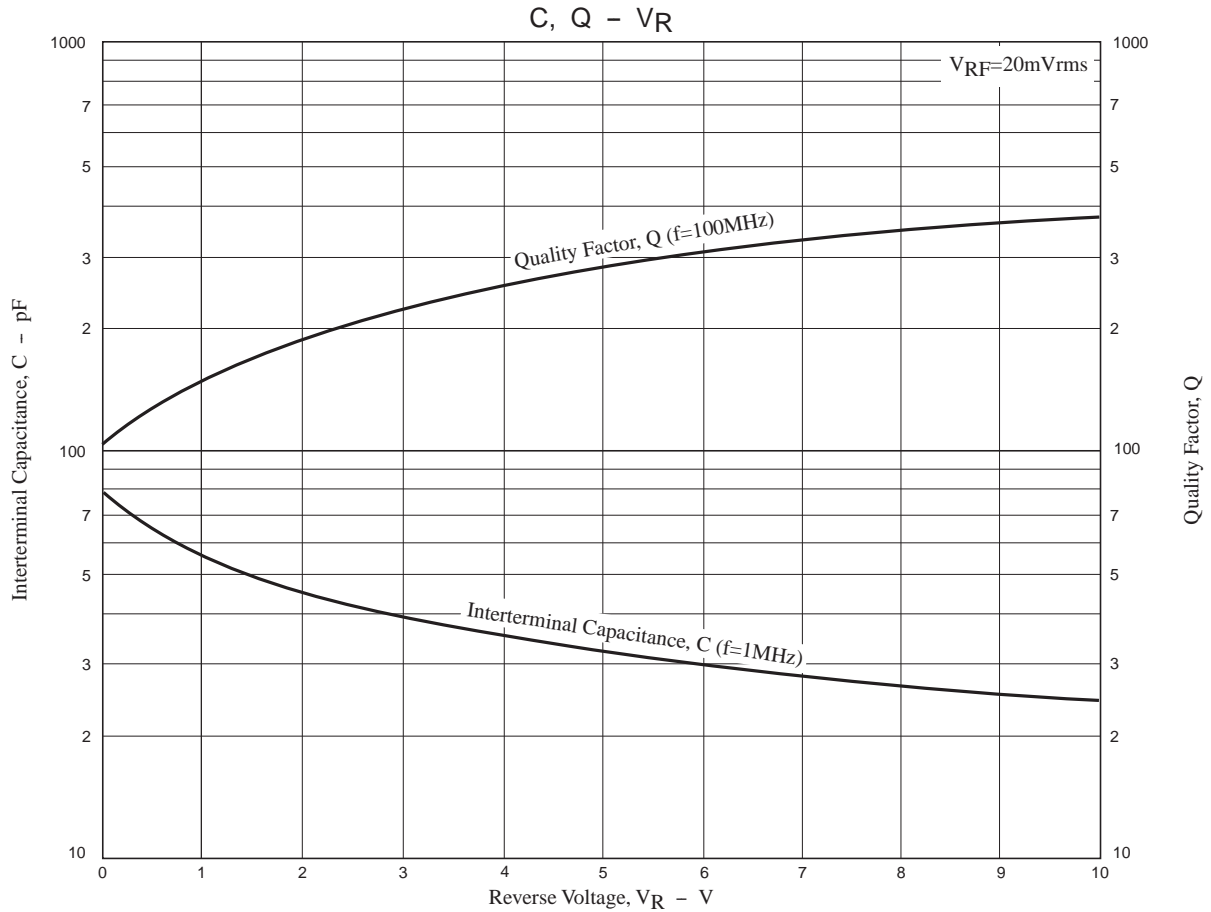
| Parameter                  | Symbol          | Conditions   | Ratings |     |      | Unit |
|----------------------------|-----------------|--|---------|-----|------|------|
|                            |                 |  | min     | typ | max  |      |
| Breakdown Voltage          | V(BR)R          | I <sub>R</sub> =10μA   | 16      |     |      | V    |
| Reverse Current            | I <sub>R</sub>  | V <sub>R</sub> =10V  |         |     | 50   | nA   |
| Interterminal Capacitance* | C2.0V           | V <sub>R</sub> =2.0V, f=1MHz   | 44.0    |     | 46.5 | pF   |
|                            | C8.0V           | V <sub>R</sub> =8.0V, f=1MHz   | 25.1    |     | 28.2 | pF   |
| Quality Factor             | Q               | V <sub>R</sub> =3.0V, f=100MHz   | 100     |     |      |      |
| Capacitance Ratio          | C <sub>R</sub>  | C2.0V / C8.0V  | 1.65    |     | 1.75 |      |
| Matching Tolerance*2       | ΔC <sub>m</sub> | V <sub>R</sub> =2.0V, f=1MHz (C <sub>max</sub> -C <sub>min</sub> ) / C <sub>min</sub> ×100 |         |     | 2.5  | %    |

Note)\*1 : Capacitance value per each diode.

\*2 : Matching Tolerance is valid for the devices in one taping reel.

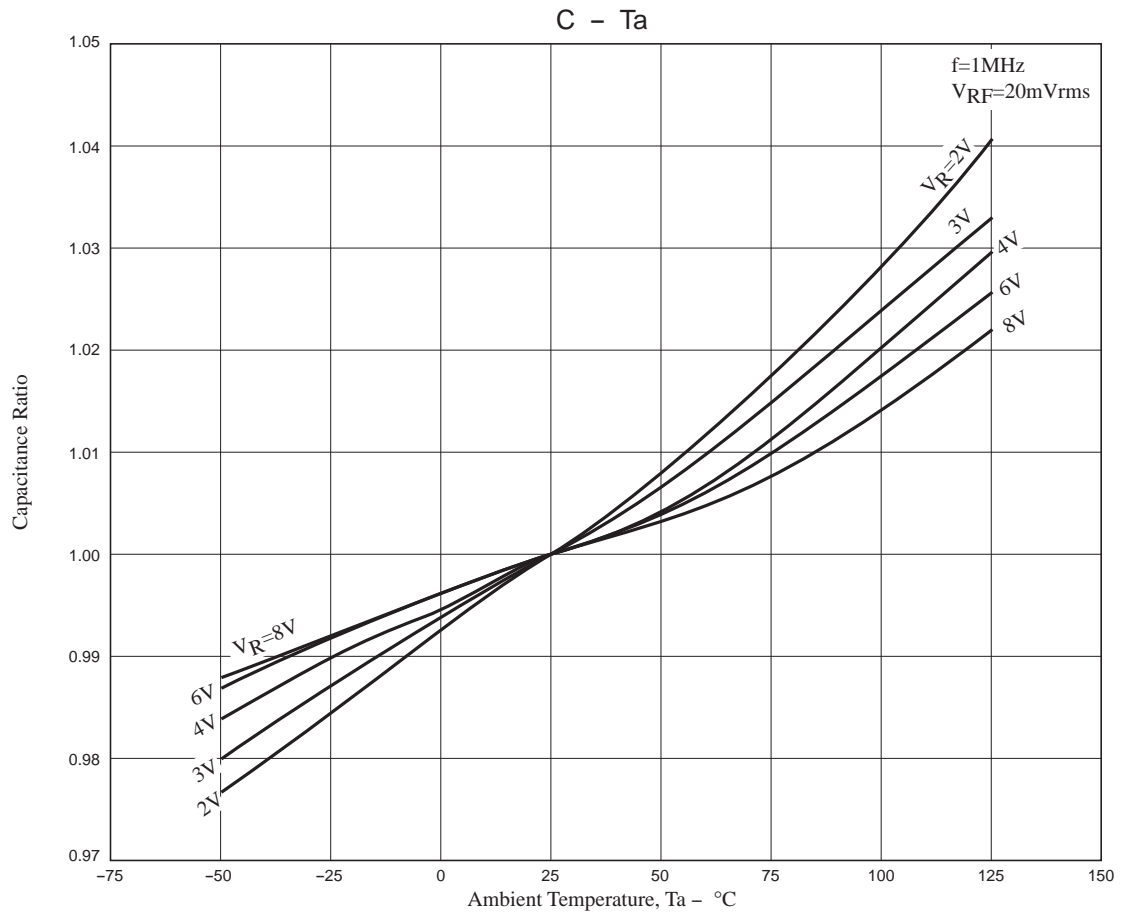
## Ordering Information

| Device      | Package | Shipping       | memo    |
|-------------|---------|----------------|---------|
| SVC270-TL-E | MCPH3   | 3,000pcs./reel | Pb Free |



IT10094

# SVC270



IT10095

Taping Specification

SVC270-TL-E

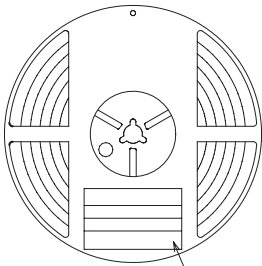
1. Packing Format

| 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)  |
| MCPH3        | MCPH3             | 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)

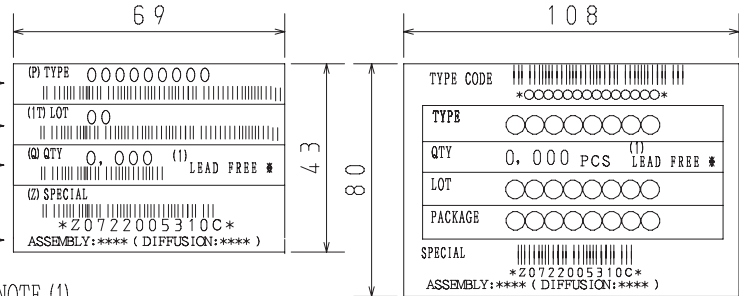
Outer box label  
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Type No.  
LOT No.  
Quantity  
Origin

Reel label



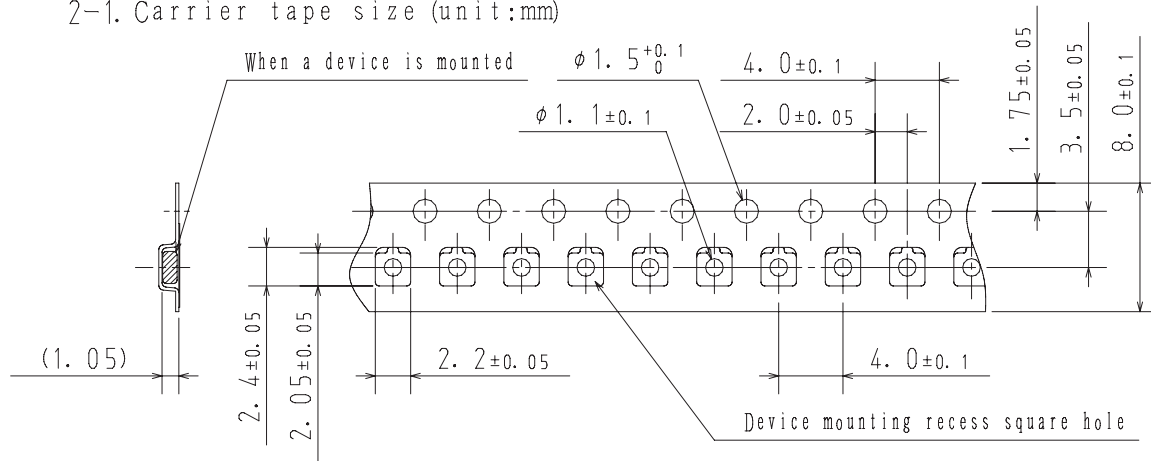
NOTE (1)

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

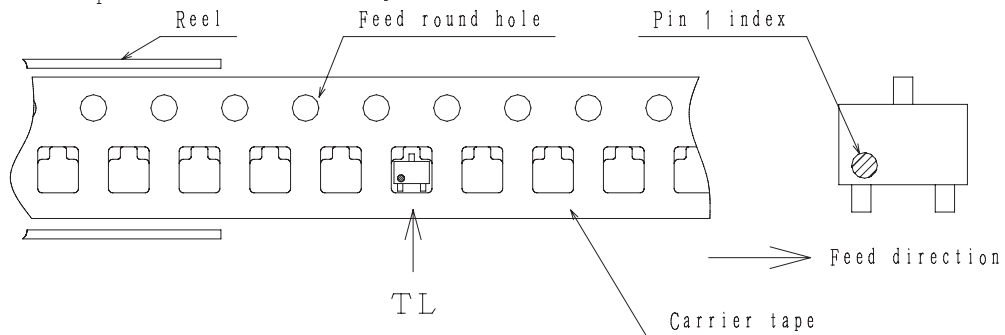
| Label       | JEITA Phase    |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3  |

2. Taping configuration

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



2-2. Device placement direction

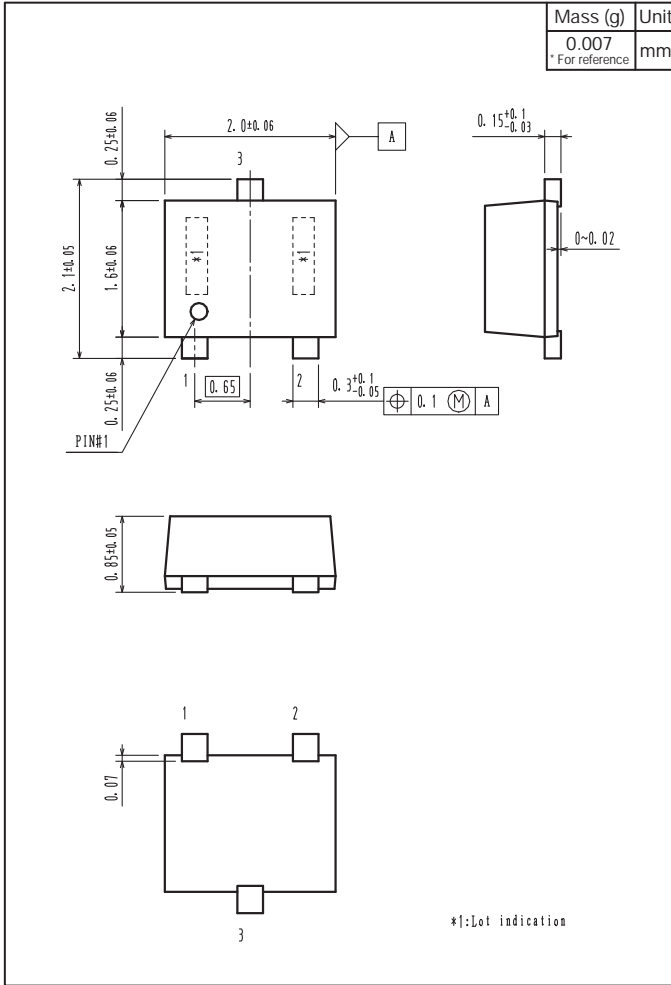


Those with pin 1 index on the feed hole side.....TL

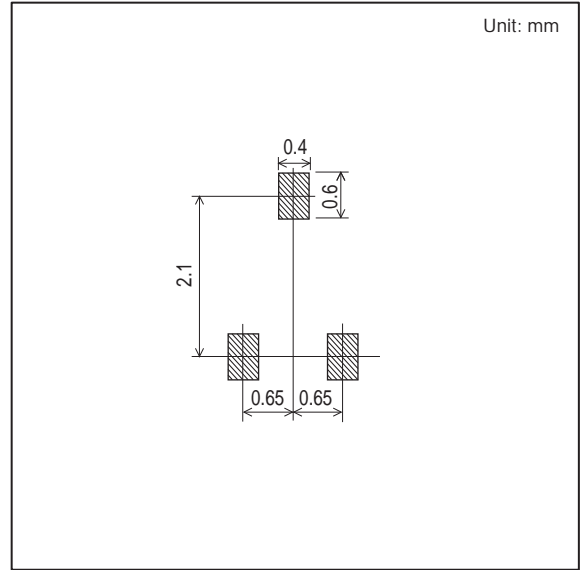
# SVC270

## Outline Drawing

SVC270-TL-E



## Land Pattern Example



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