

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

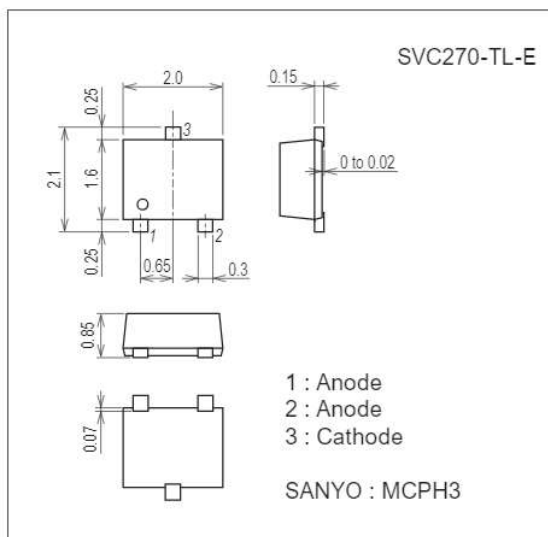
Absolute Maximum Ratings at Ta=25°C

| 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)

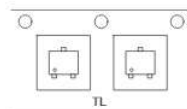
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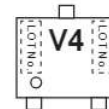
Product & Package Information

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

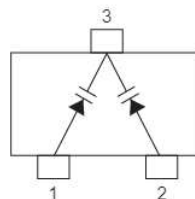
Packing Type : TL



Marking



Electrical Connection



SVC270

Electrical Characteristics at Ta=25°C

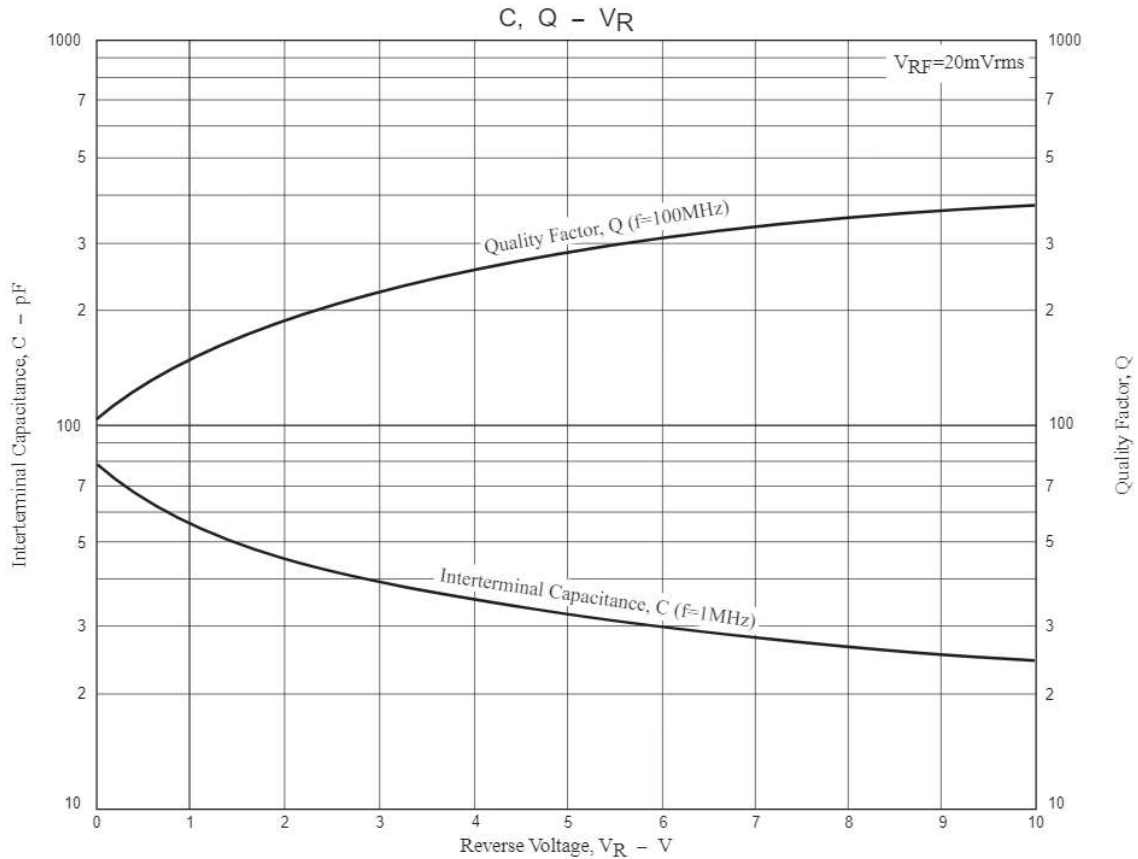
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|----------------------------|--------------|-----------------------------------------------------------|---------|-----|------|------|
| | | | min | typ | max | |
| Breakdown Voltage | $V_{(BR)R}$ | $I_R=10\mu A$ | 16 | | | V |
| Reverse Current | I_R | $V_R=10V$ | | | 50 | nA |
| Interterminal Capacitance* | C2.0V | $V_R=2.0V, f=1MHz$ | 44.0 | | 46.5 | pF |
| | C8.0V | $V_R=8.0V, f=1MHz$ | 25.1 | | 28.2 | pF |
| Quality Factor | Q | $V_R=3.0V, f=100MHz$ | 100 | | | |
| Capacitance Ratio | C_R | C2.0V / C8.0V | 1.65 | | 1.75 | |
| Matching Tolerance*2 | ΔC_m | $V_R=2.0V, f=1MHz (C_{max}-C_{min}) / C_{min} \times 100$ | | | 2.5 | % |

Note)*1 : Capacitance value per each diode.

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

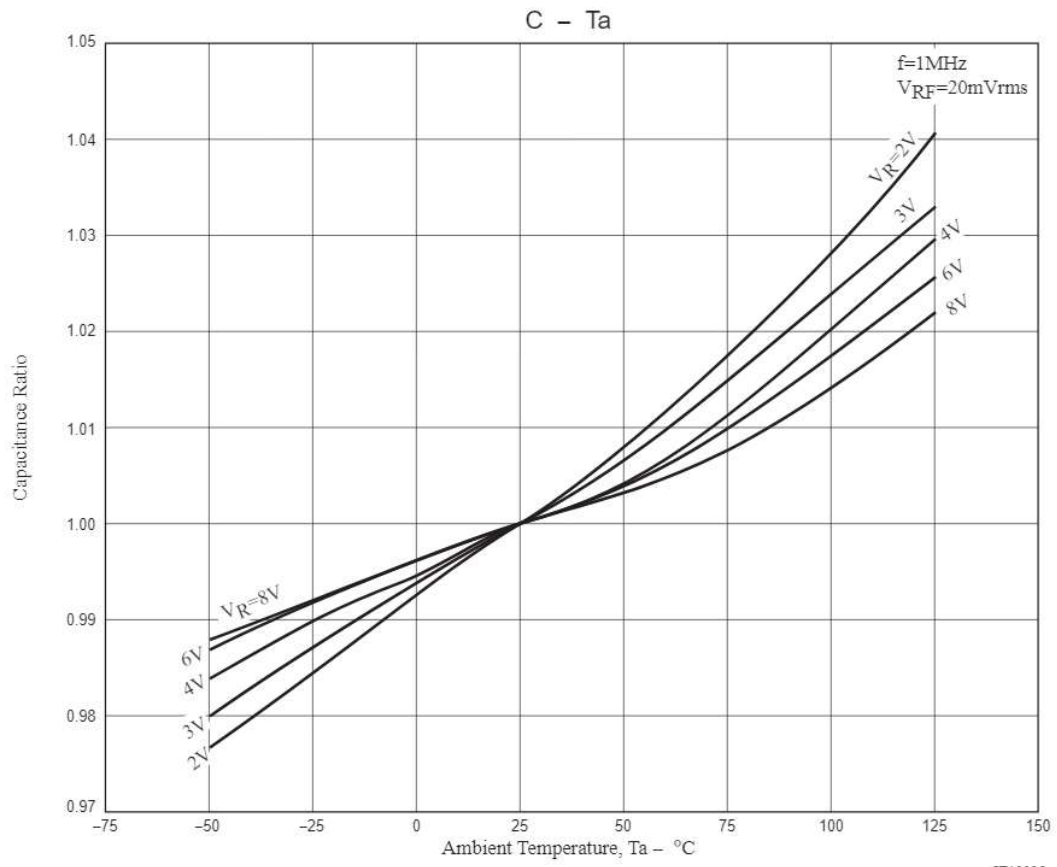
Ordering Information

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



IT10094

SVC270



IT10095

Taping Specification

SVC270-TL-E

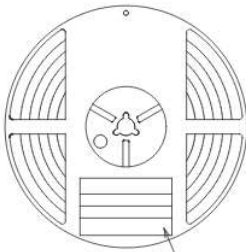
1. Packing Format

| 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 Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

Reel label, Inner box label
(unit:mm)

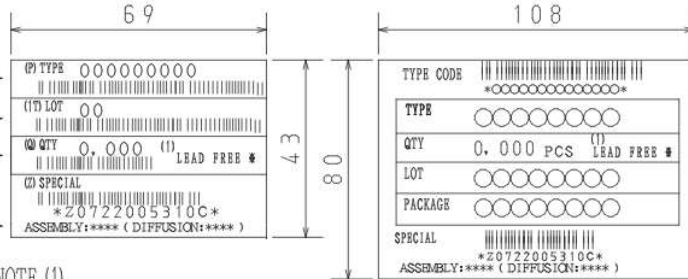
Outer box label
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Type No.
LOT No.
Quantity
Origin

Reel label



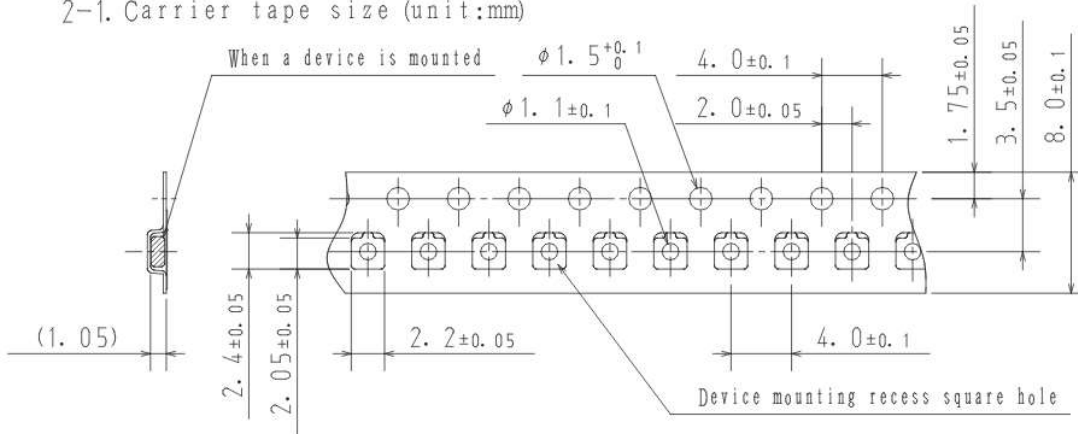
NOTE (1)

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

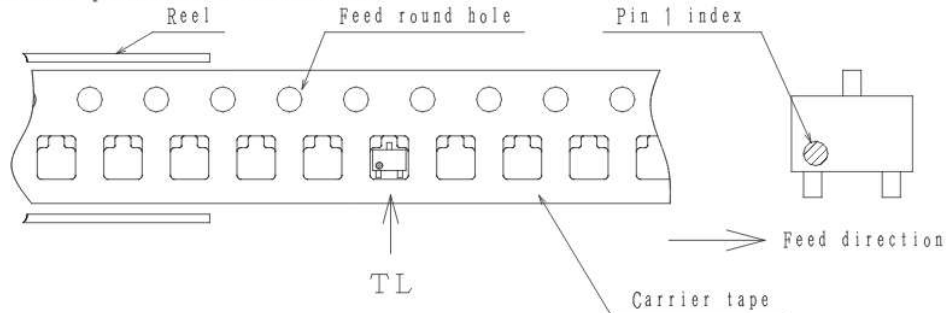
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



2-2. Device placement direction

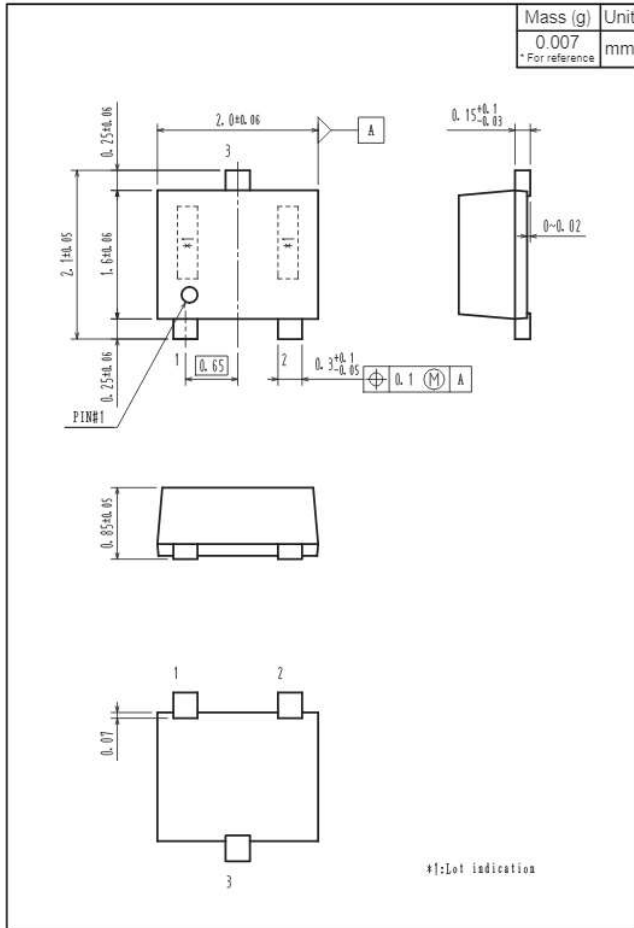


Those with pin 1 index on the feed hole side.....TL

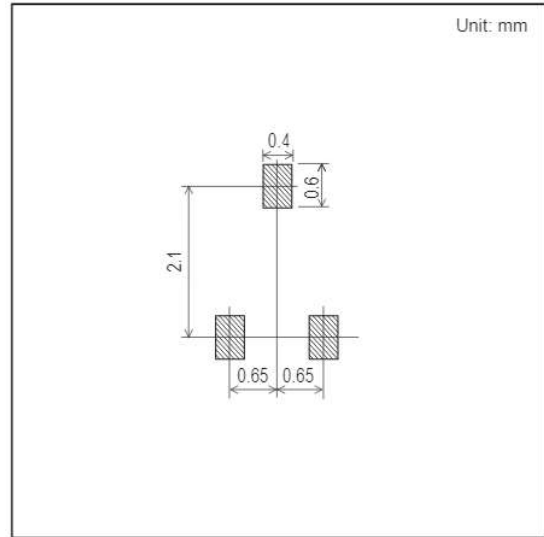
SVC270

Outline Drawing

SVC270-TL-E



Land Pattern Example



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