



# SVC704 — Silicon Diffused Junction Type Varactor Diode Varactor Diode for AFC, VCO

## Features

- High capacitance ratio ( $V_R=1.0$  to  $7.0V$ )
- Small-sized package
- Low series resistance

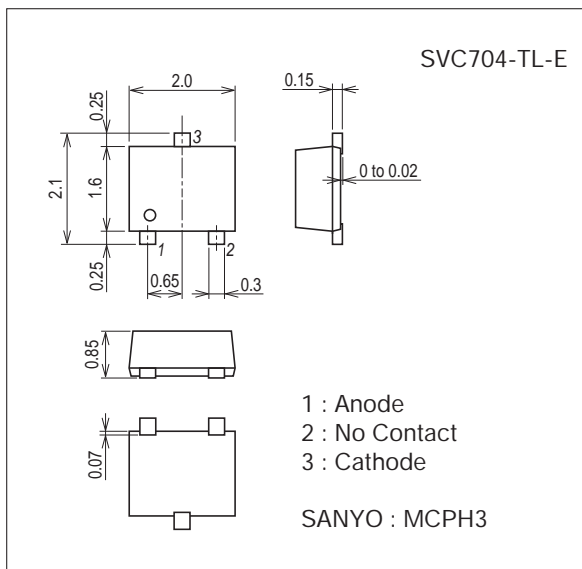
## Specifications

Absolute Maximum Ratings at  $T_a=25^\circ C$

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

## Package Dimensions

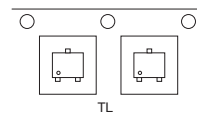
unit : mm (typ)  
7019A-001



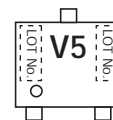
## Product & Package Information

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

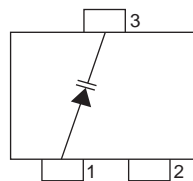
## Packing Type : TL



## Marking



## Electrical Connection



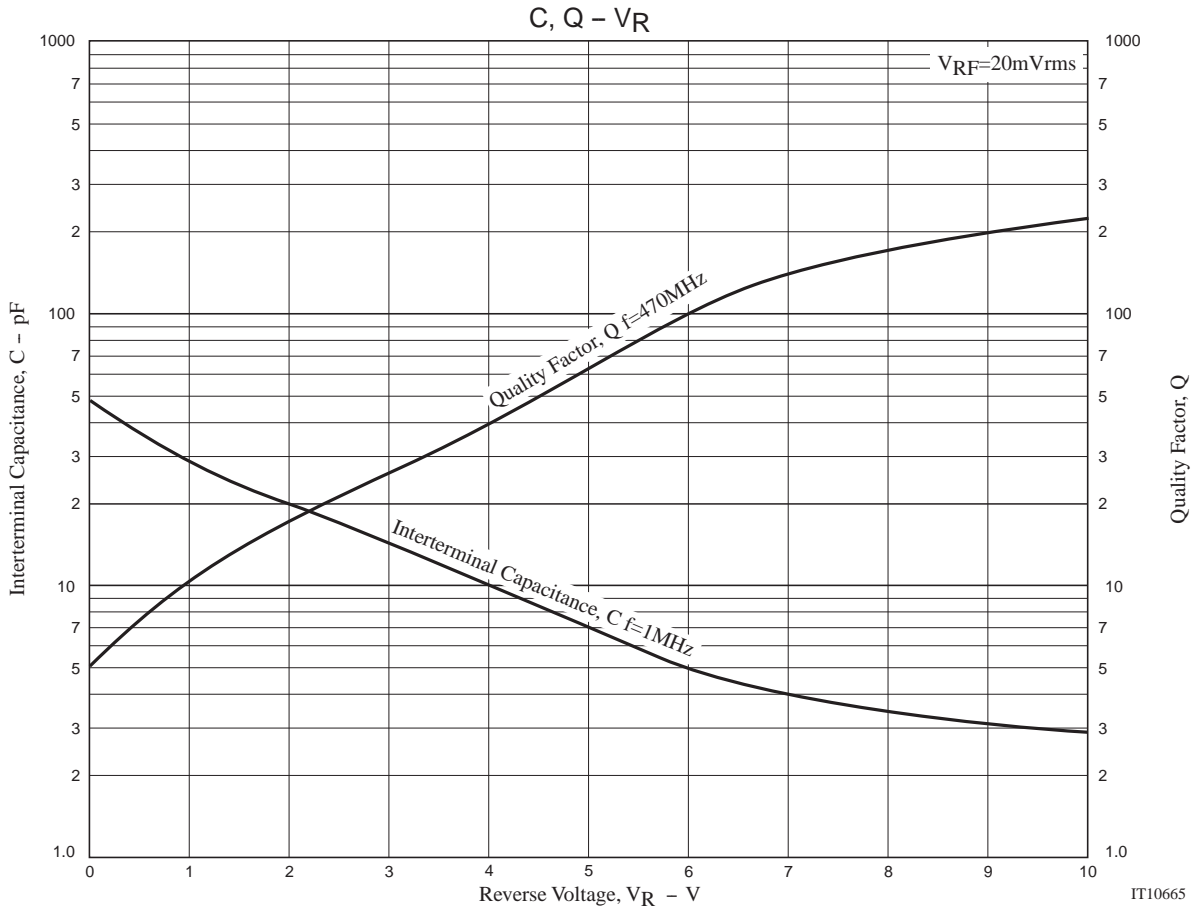
# SVC704

## 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* | C1.0V          | V <sub>R</sub> =1.0V, f=1MHz   | 26.0    |     | 30.0 | pF   |
|                            | C7.0V          | V <sub>R</sub> =7.0V, f=1MHz   | 3.4     |     | 4.6  | pF   |
| Series Resistance          | r <sub>S</sub> | V <sub>R</sub> =1.0V, f=470MHz |         |     | 0.8  | Ω    |
| Capacitance Ratio          | CR             | C1.0V / C7.0V                  | 6.0     |     |      |      |

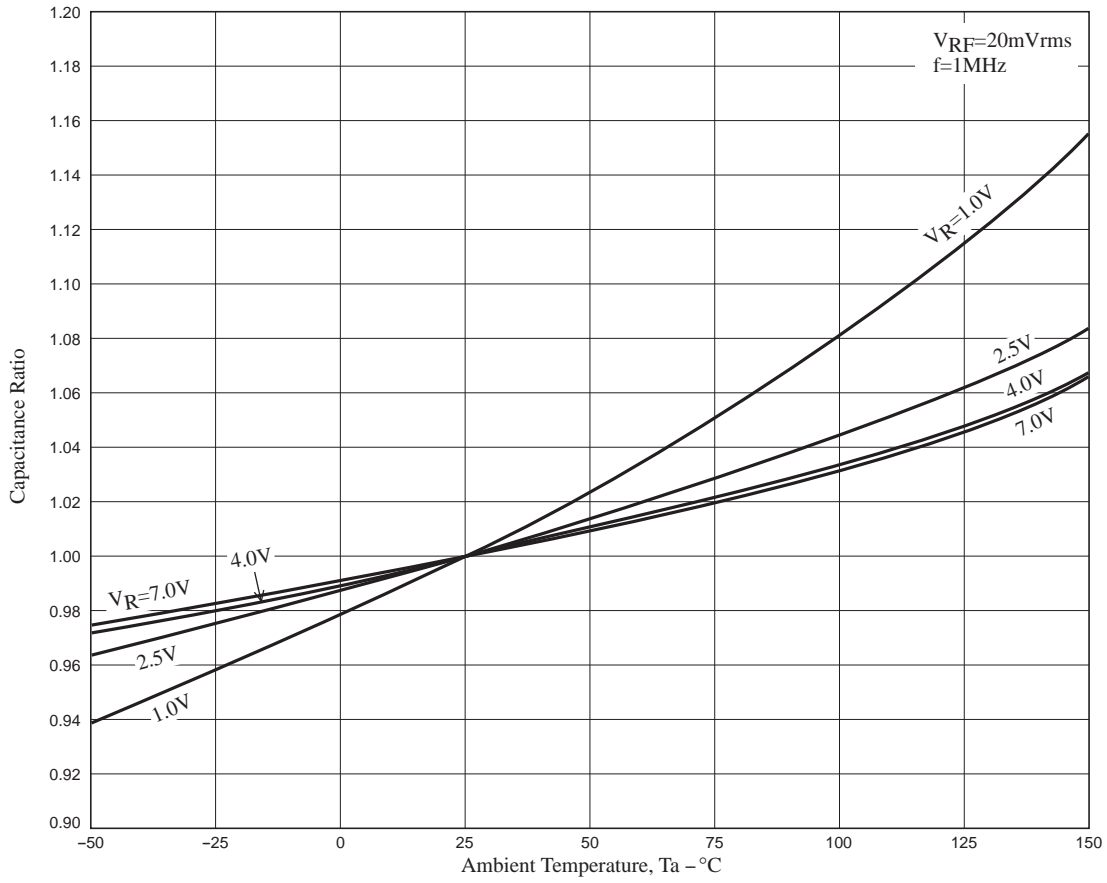
## Ordering Information

| Device      | Package | Shipping       | memo    |
|-------------|---------|----------------|---------|
| SVC704-TL-E | MCPH3   | 3,000pcs./reel | Pb Free |



# SVC704

C - Ta



IT10666

Taping Specification

SVC704-TL-E

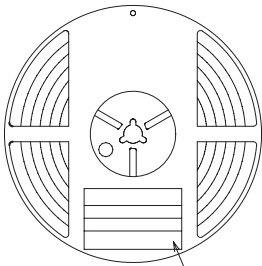
1. Packing Format

| 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)

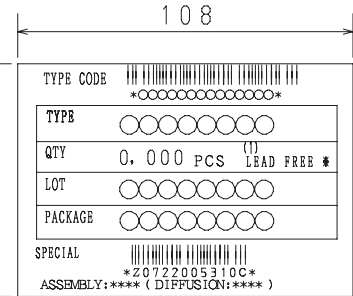
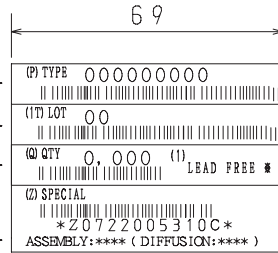
Outer box label  
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Type No.  
LOT No.  
Quantity  
Origin

Reel label



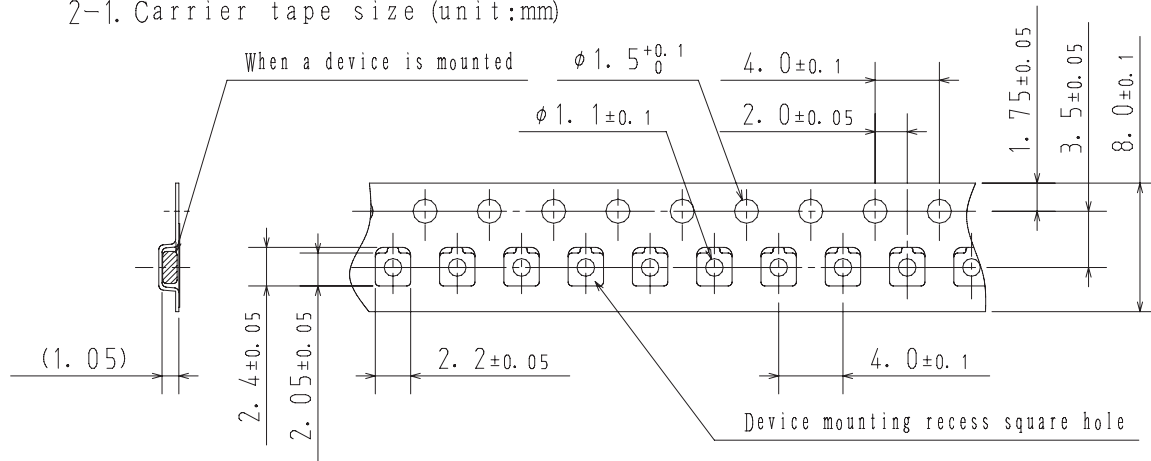
NOTE (1)

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

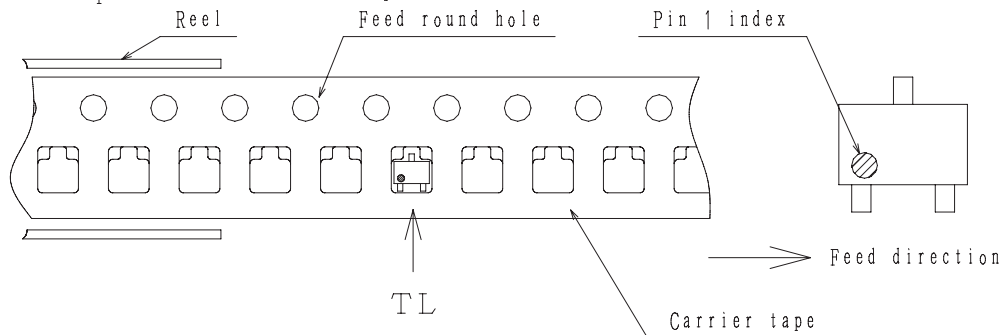
| Label       | JEITA Phase    |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3  |

2. Taping configuration

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



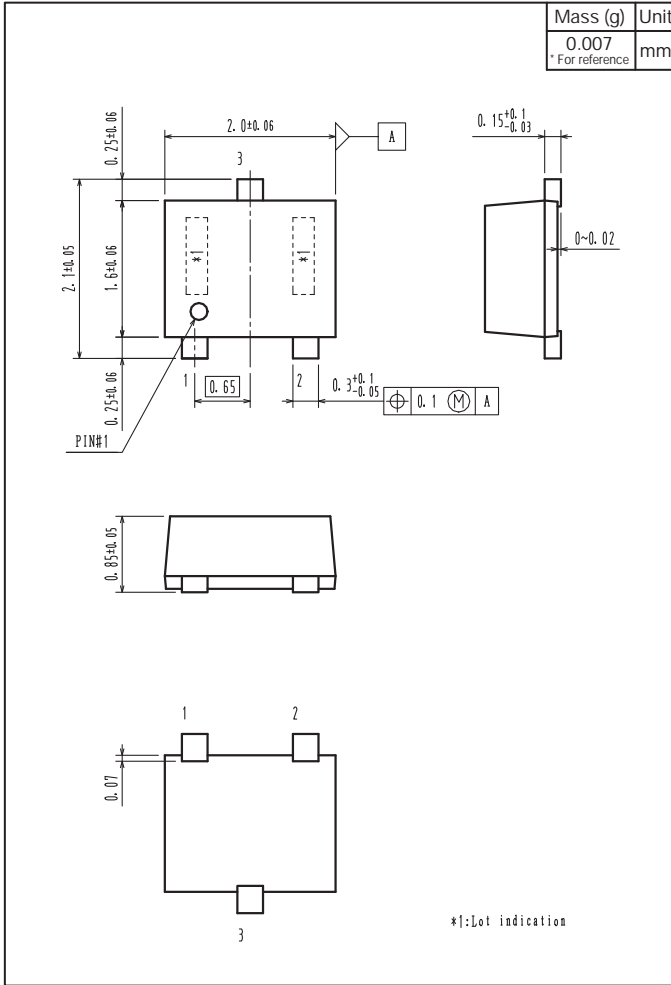
2-2. Device placement direction



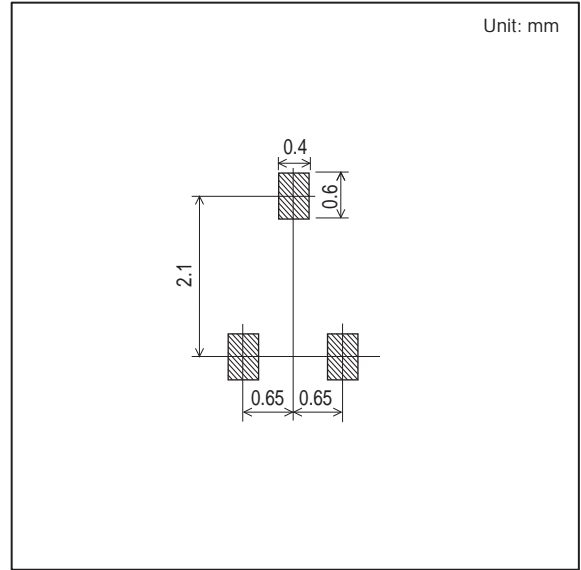
Those with pin 1 index on the feed hole side.....TL

# SVC704

## Outline Drawing SVC704-TL-E



## Land Pattern Example



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