



# SVC704

**ON Semiconductor®**

<http://onsemi.com>

## Varactor Diode

### Single Varactor Diode for VCO 16V, 50nA, CR=6.0, $r_s=0.8\Omega$ , MCPH3

#### Features

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

#### Specifications

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

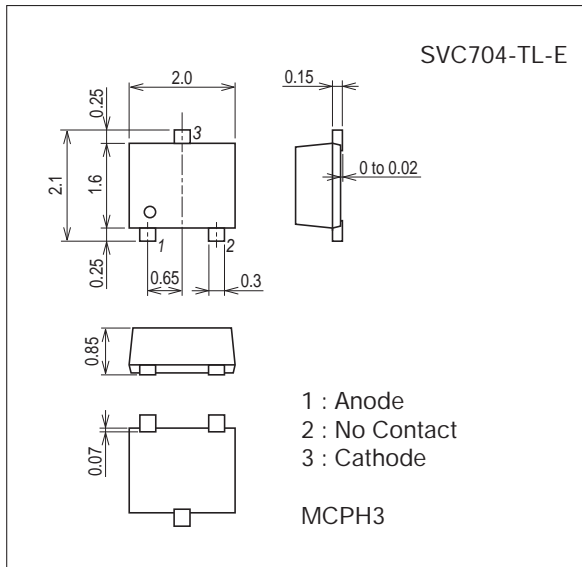
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_j$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

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)

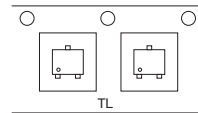
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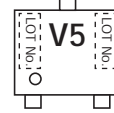
#### Product & Package Information

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

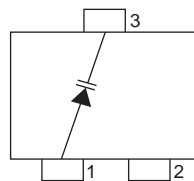
#### Packing Type : TL



#### Marking



#### Electrical Connection



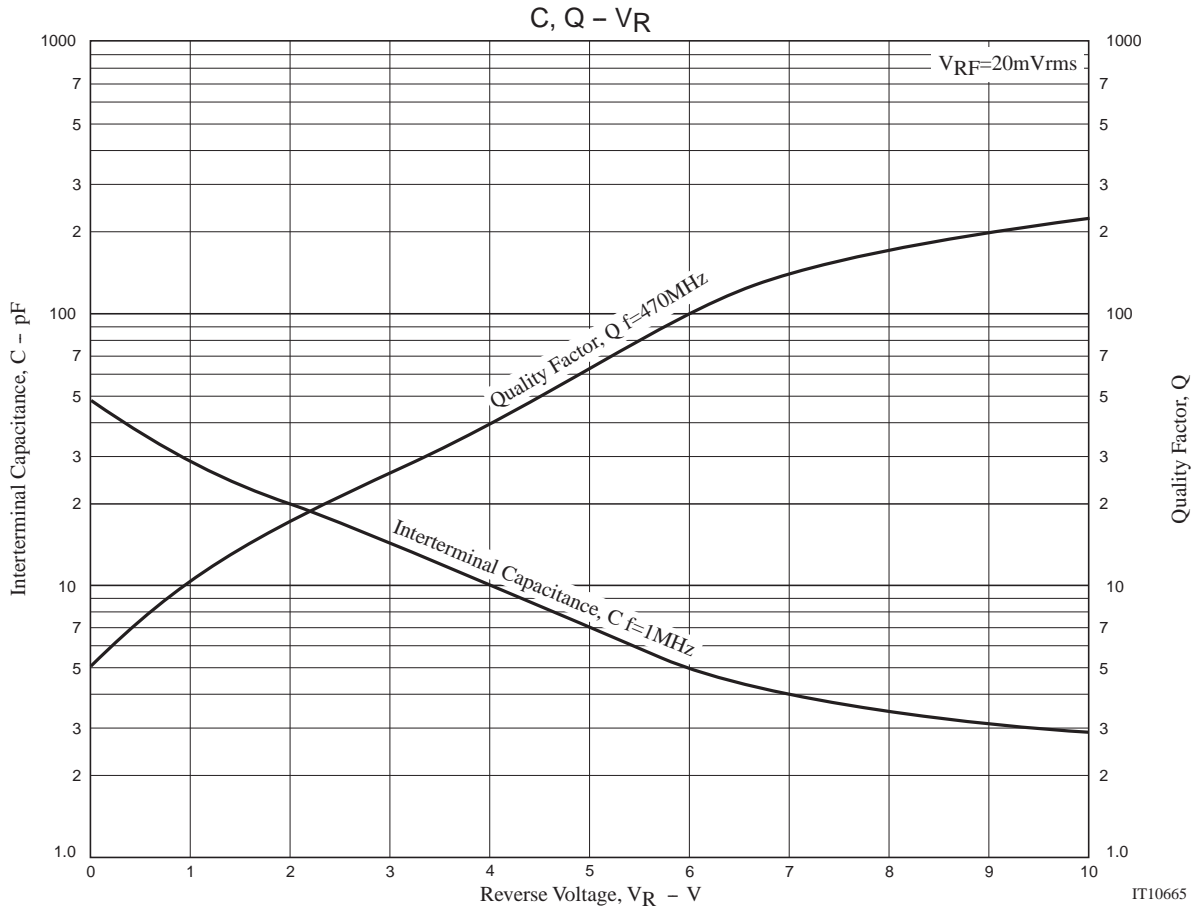
# SVC704

## 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			

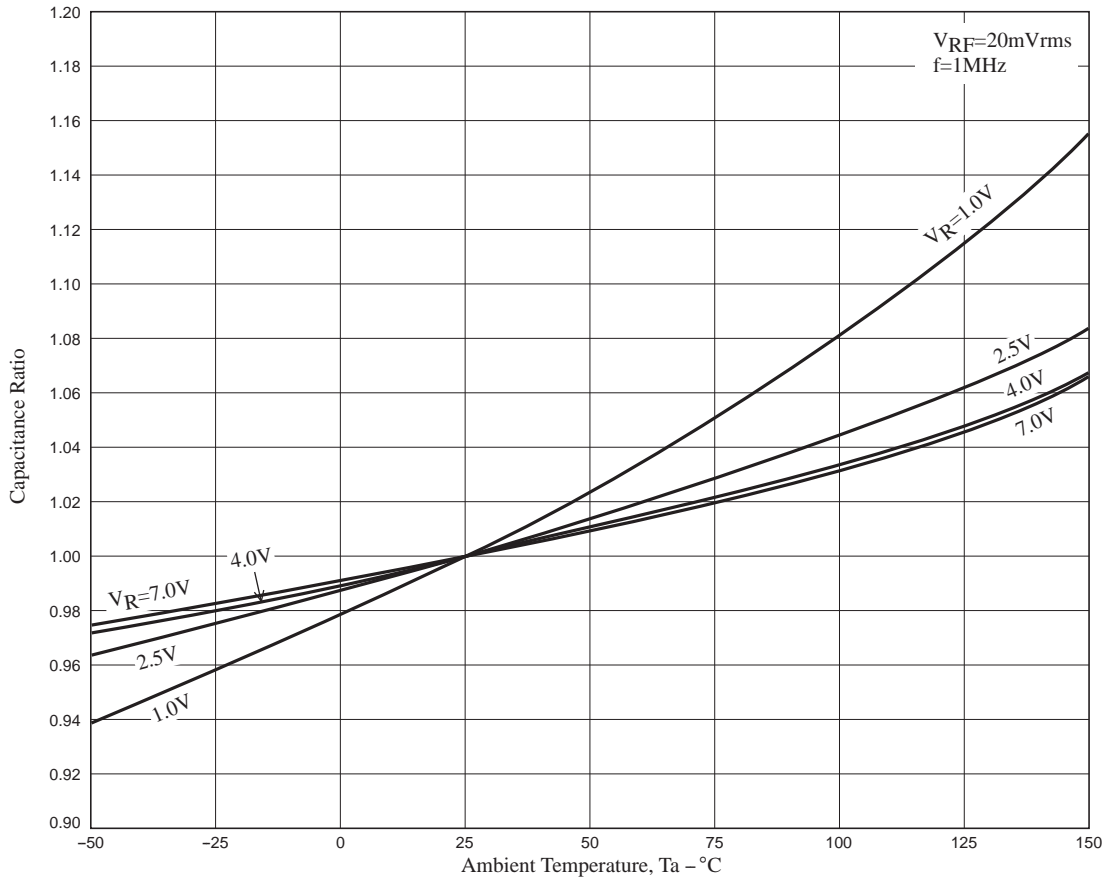
## Ordering Information

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

Reel label, Inner box label  
(unit: mm)

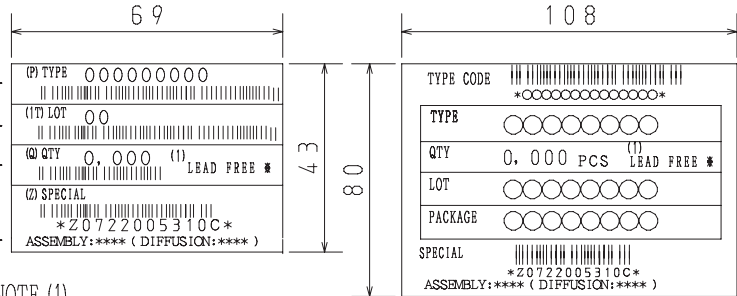
Outer box label  
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Type No.  
LOT No.  
Quantity  
Origin

Reel label



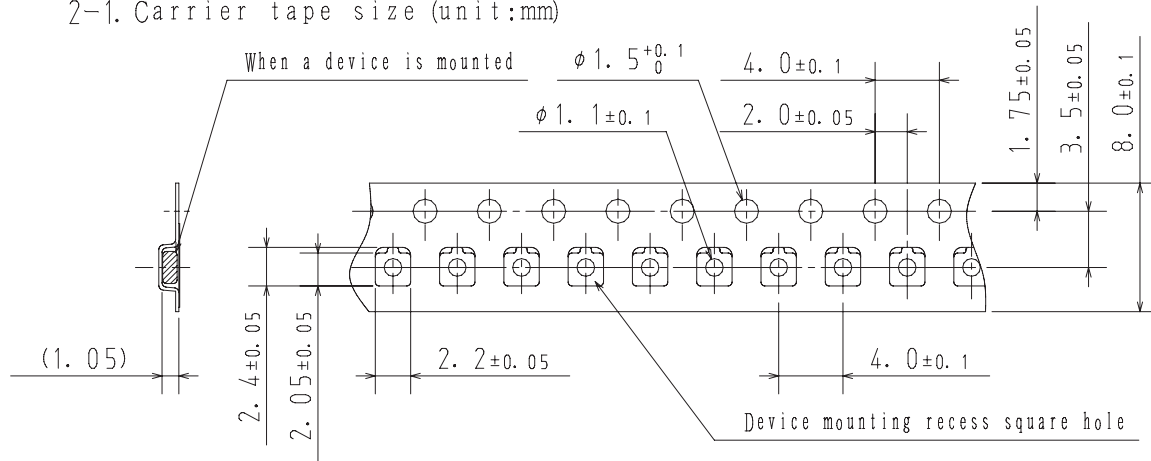
NOTE (1)

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

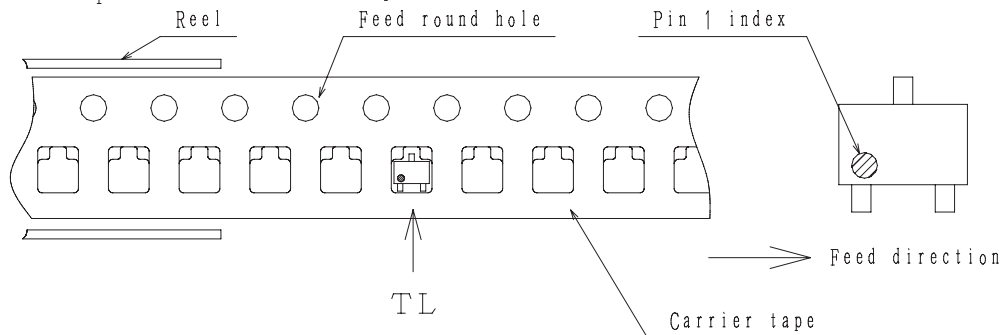
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

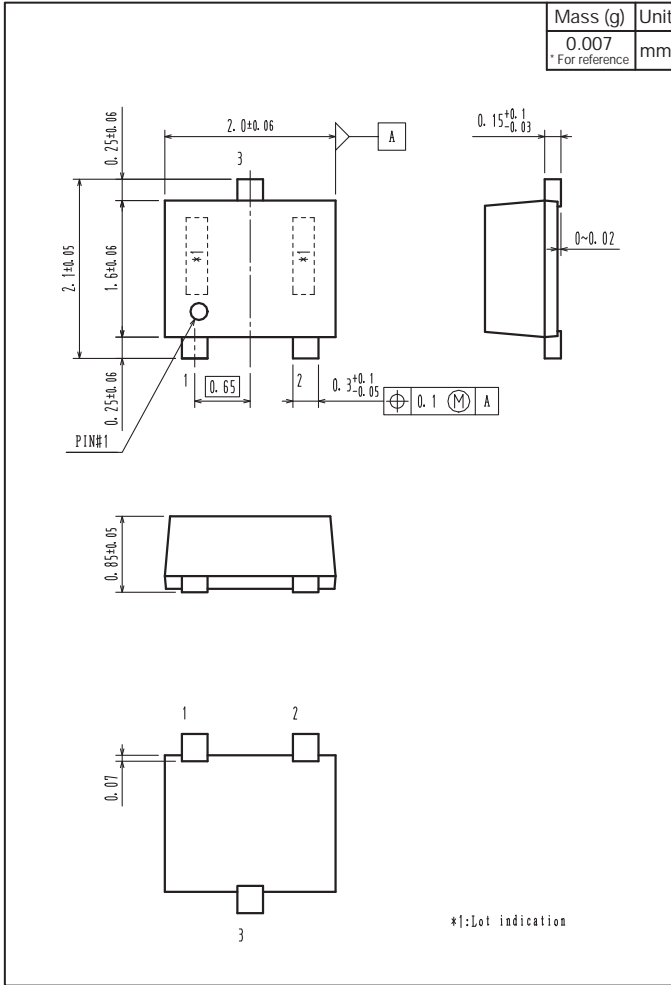


2-2. Device placement direction

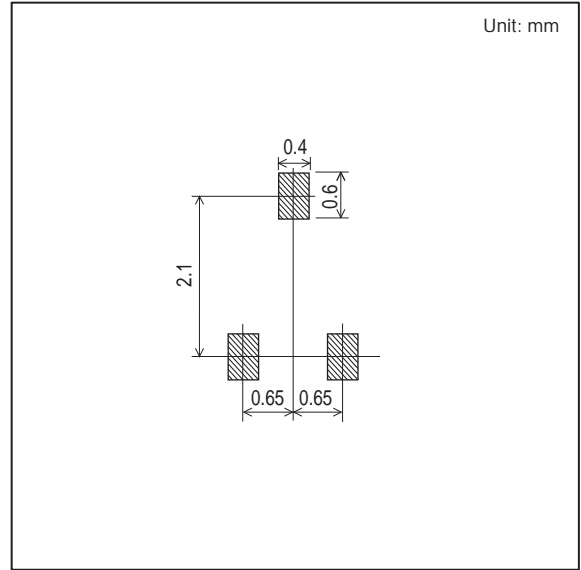


Those with pin 1 index on the feed hole side.....TL

Outline Drawing  
SVC704-TL-E



Land Pattern Example



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