



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

Diffused Junction Type Silicon Diode

SVC270 — 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

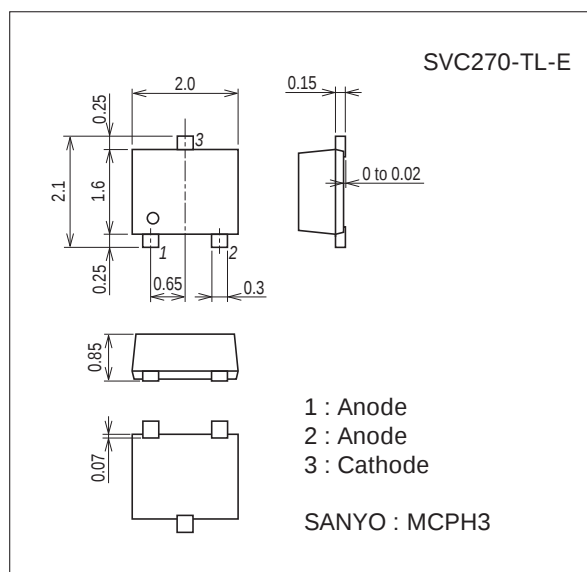
Absolute Maximum Ratings at Ta=25°C

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)

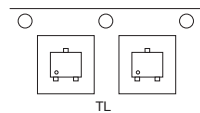
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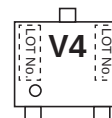
Product & Package Information

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

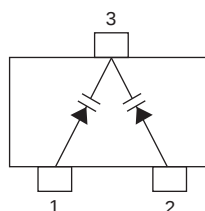
Packing Type : TL



Marking



Electrical Connection



SVC270

Electrical Characteristics at Ta=25°C

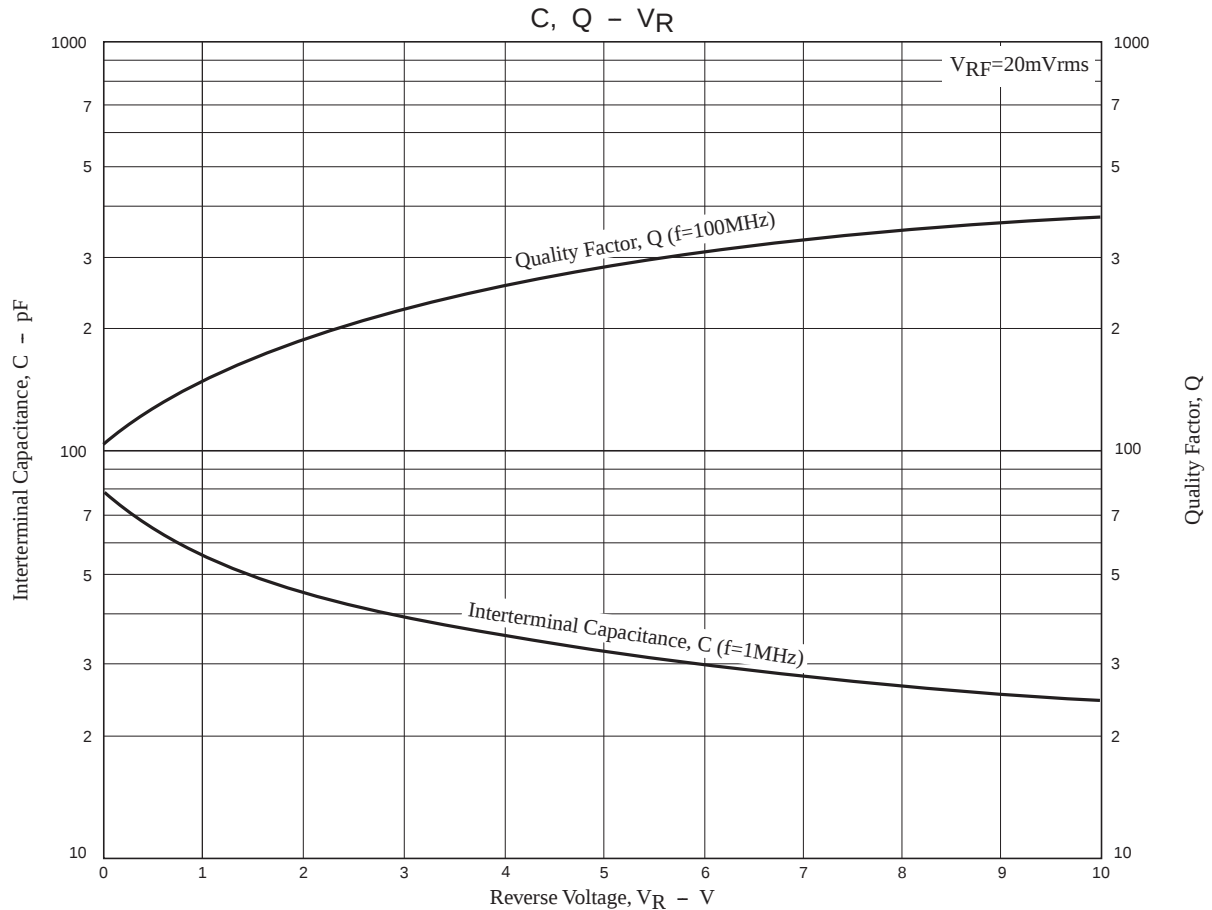
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current	I_R	$V_R=10V$			50	nA
Interterminal Capacitance*	C2.0V	$V_R=2.0V, f=1MHz$	44.0		46.5	pF
	C8.0V	$V_R=8.0V, f=1MHz$	25.1		28.2	pF
Quality Factor	Q	$V_R=3.0V, f=100MHz$	100			
Capacitance 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.

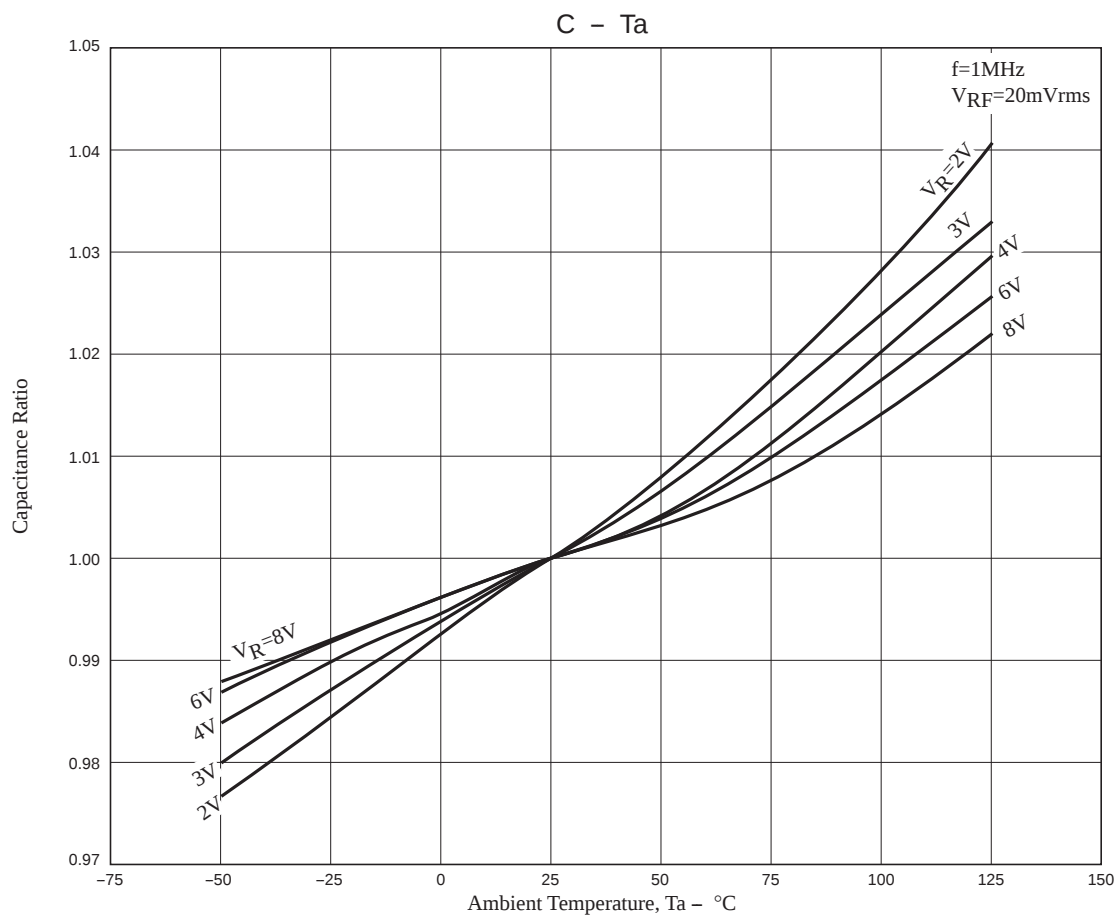
*2 : Matching Tolerance is valid for the devices in one taping reel.

Ordering Information

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



SVC270



IT10095

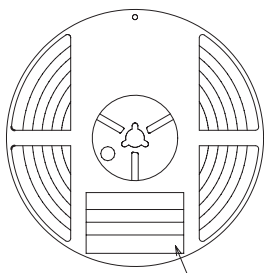
Taping Specification

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

Packing method



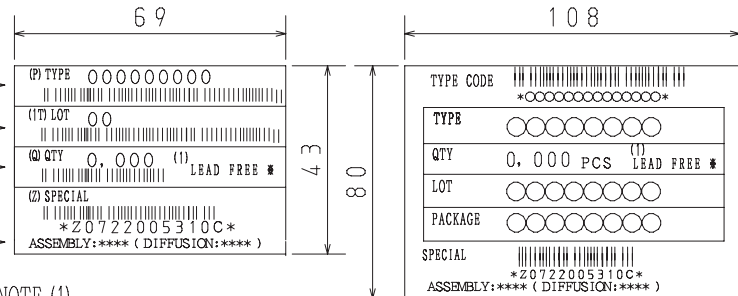
Reel label

Type No.
LOT No.
Quantity
Origin

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.



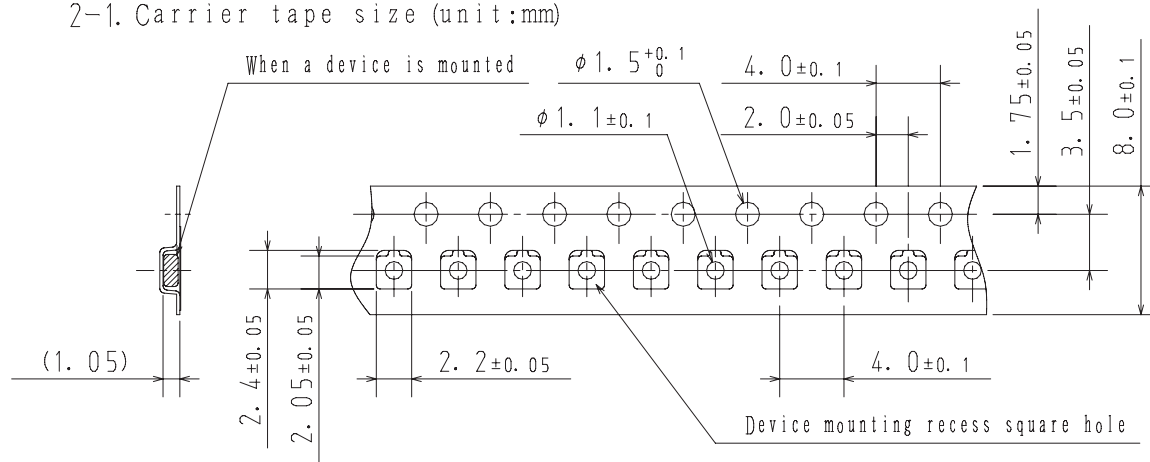
NOTE (1)

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

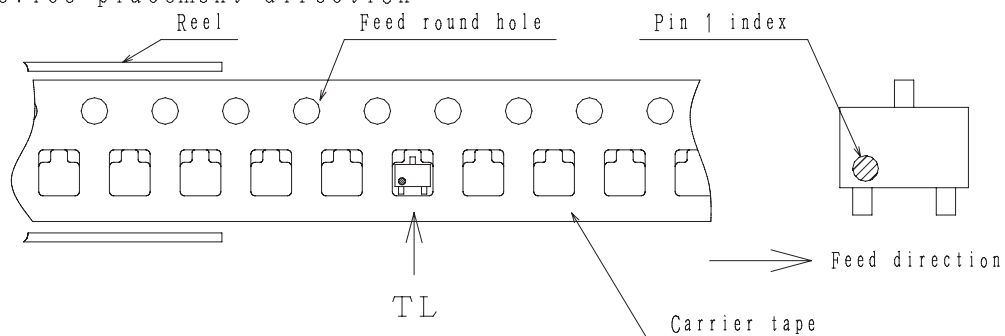
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

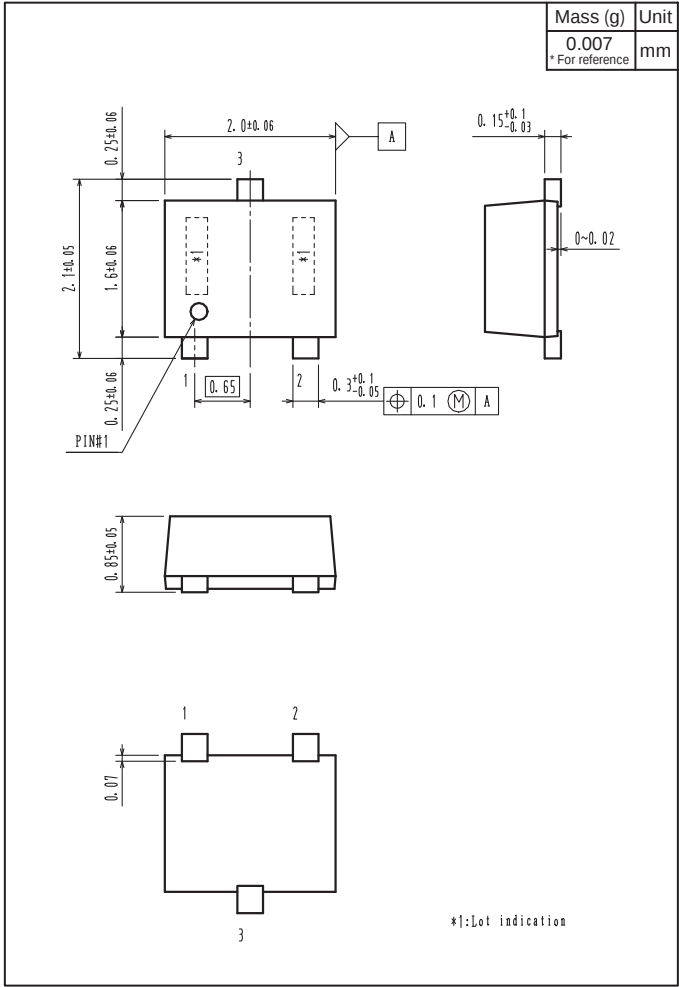


2-2. Device placement direction

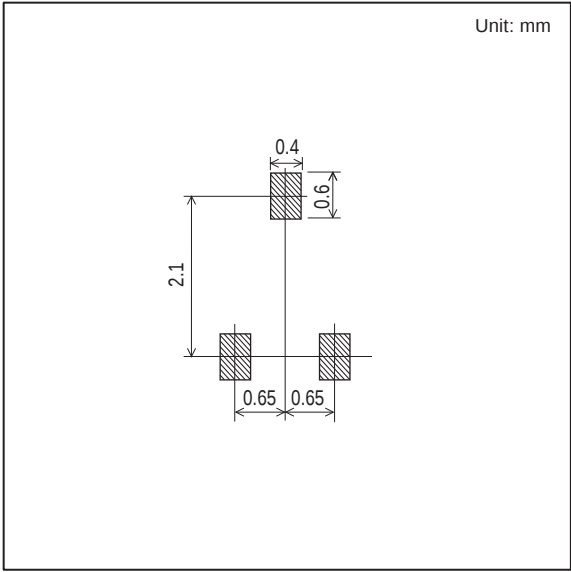


Those with pin 1 index on the feed hole side.....TL

Outline Drawing
SVC270-TL-E



Land Pattern Example



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