THE DATASHEET OF

SVC272-TL-E

Ordering number : EN7680A

SVC272

Varactor Diode

Monolithic dual Varactor Diode for FM Tunin
14V, 50nA, C_R=2.3, Q=150, MCPH3

ON Semiconductor®

http://onsemi.com

Features

- Twin type varactor diode with good large-signal characteristics for FM receiver electronic tuning use
- Small package permits SVC272-applied sets to be compact and slim
- Can be also provieded in tape reel package thereby automatic insertion is supported
- High Quality Factor

Specifications

Absolute Maximum Ratings at Ta=25°C

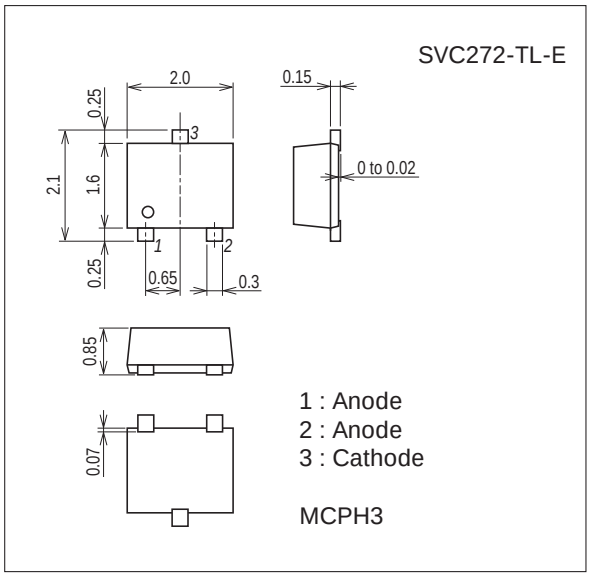
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		−55 to +125	°C

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)

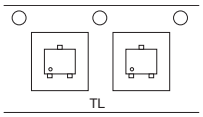
7019A-002



Product & Package Information

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

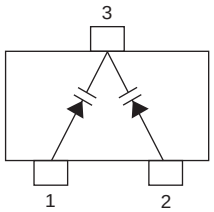
Packing Type : TL



Marking



Electrical Connection



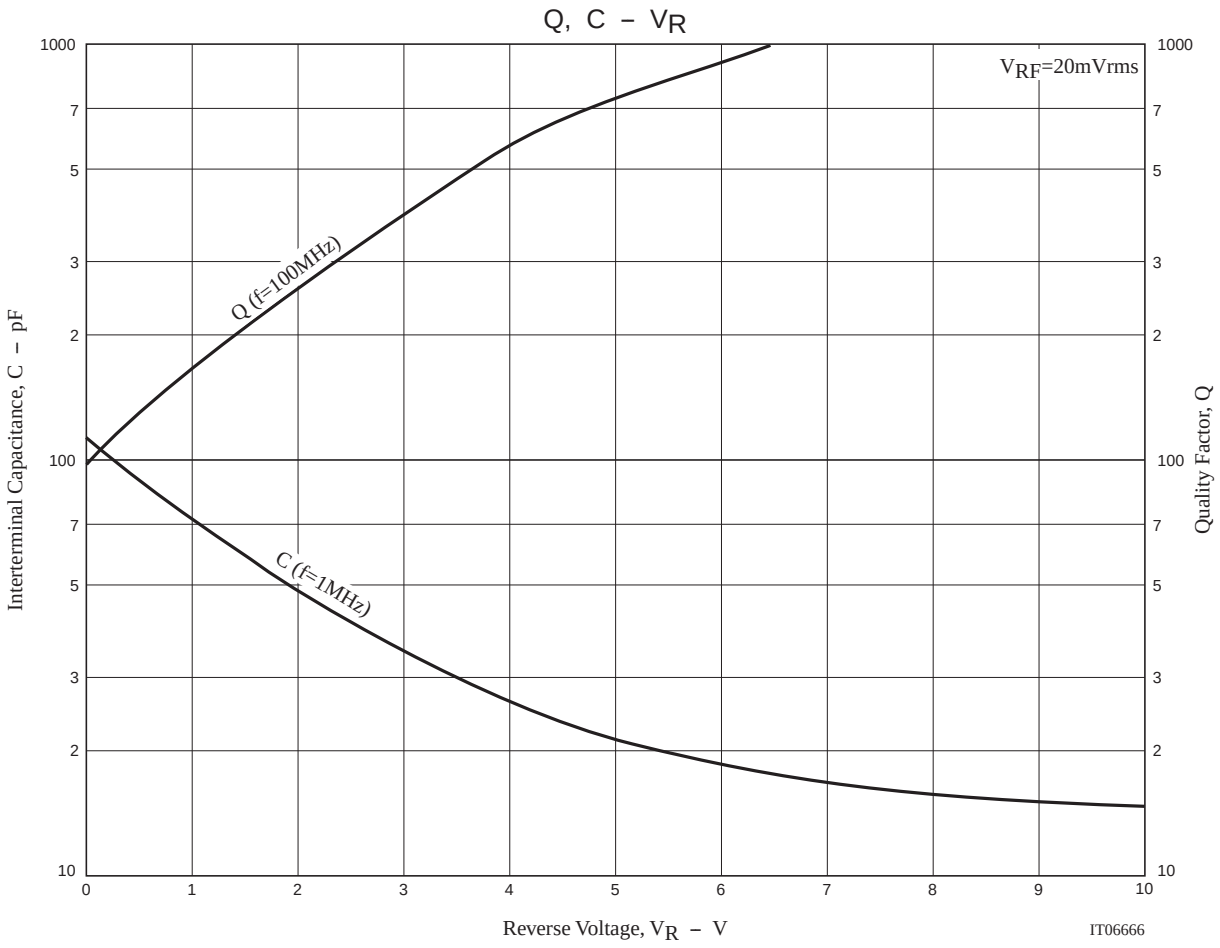
Electrical Characteristics at Ta=25°C

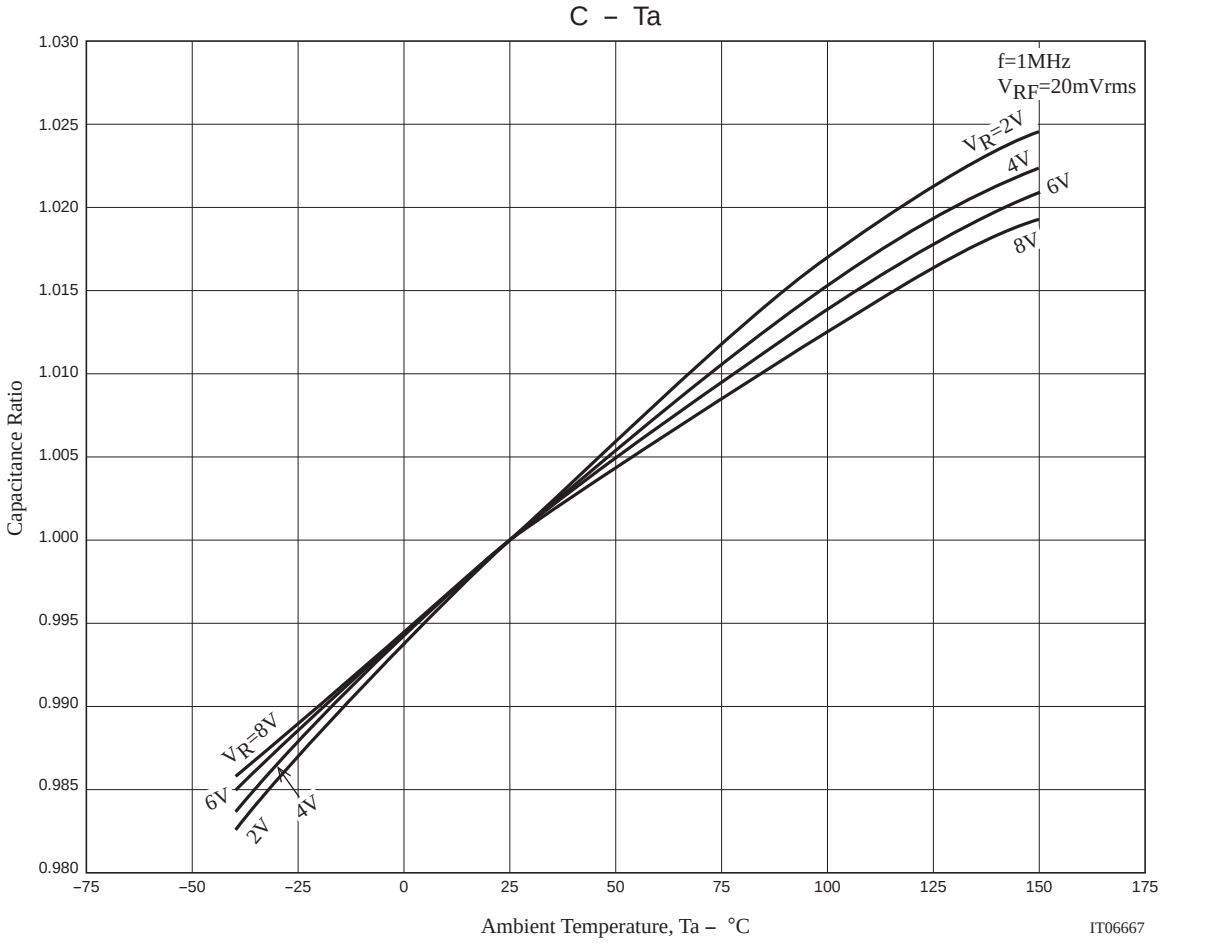
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	I_R=10μA	14			V
Reverse Current	I_R	V_R=10V			50	nA
Interterminal Capacitance*	C2.0V	V_R=2.0V, f=1MHz	44.91		49.82	pF
	C8.0V	V_R=8.0V, f=1MHz	14.07		18.55	pF
Quality Factor	Q	V_R=2.0V, f=100MHz	150			
Capacitance Ratio	C_R	C2.0V / C8.0V	2.3			
Matching Tolerance	ΔCm	V_R=2.0V, 8.0, f=1MHz (C max-C min) / C min×100			3.0	%

Note)* : Capacitance value per each diode.

Ordering Information

Device	Package	Shipping	memo
SVC272-TL-E	MCPH3	3,000pcs./reel	Pb Free


Q, C – VR
VRF=20mVrms
Q (f=100MHz)
C (f=1MHz)
Interterminal Capacitance, C – pF
Quality Factor, Q
Reverse Voltage, VR – V
IT06666


C – Ta
f=1MHz
VRF=20mVrms
VR=2V
4V
6V
8V
Capacitance Ratio
Ambient Temperature, Ta – °C
IT06667

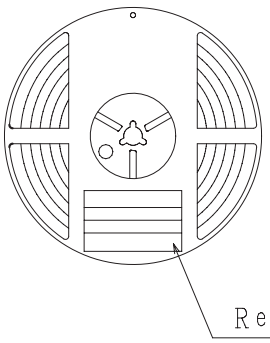
Taping Specification

SVC272-TL-E

1. Packing Format

Package Name	Carrier Tape Type	Maximun 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

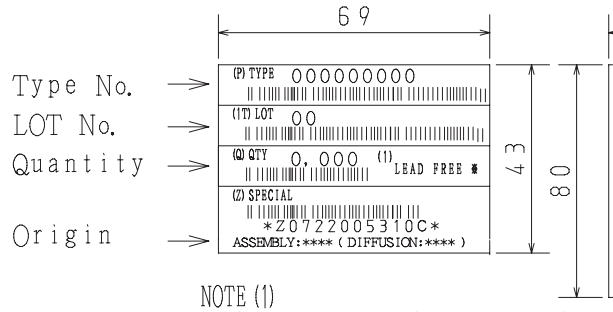
Packing method



Reel label

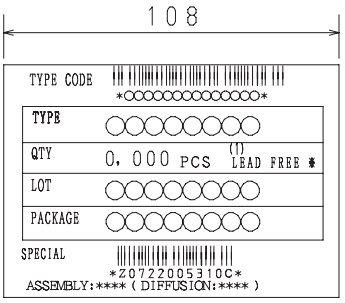
Reel label, Inner box label

(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.



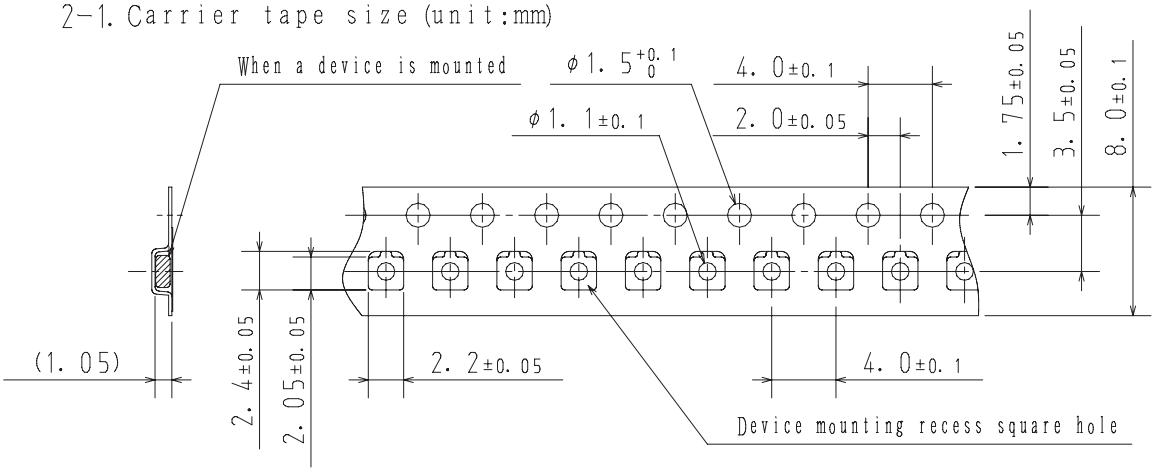
NOTE (1)

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

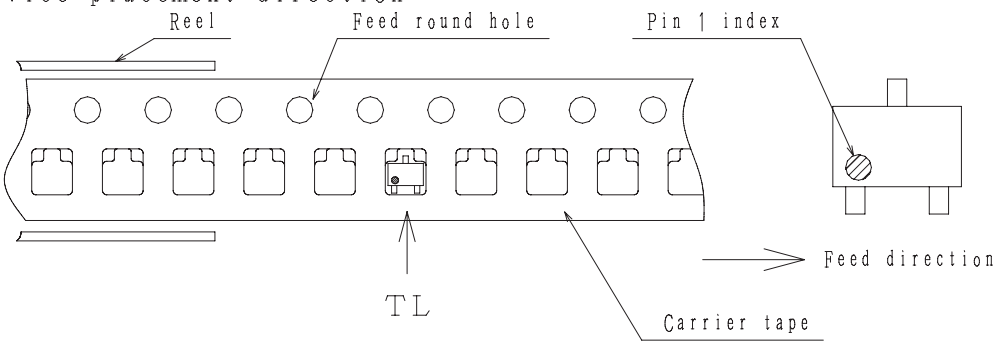
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



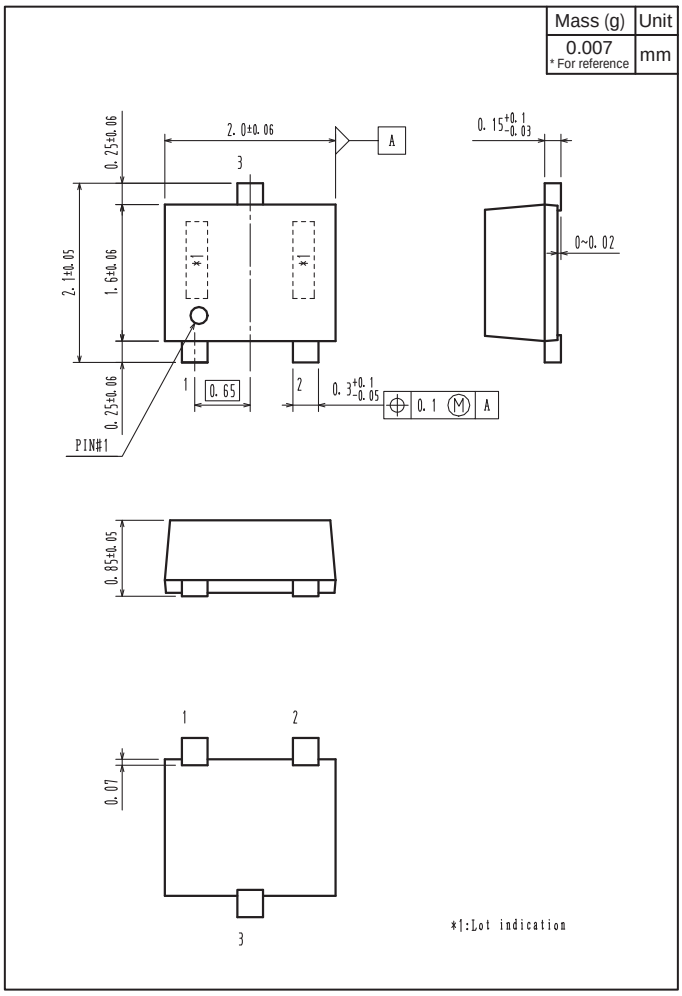
2-2. Device placement direction



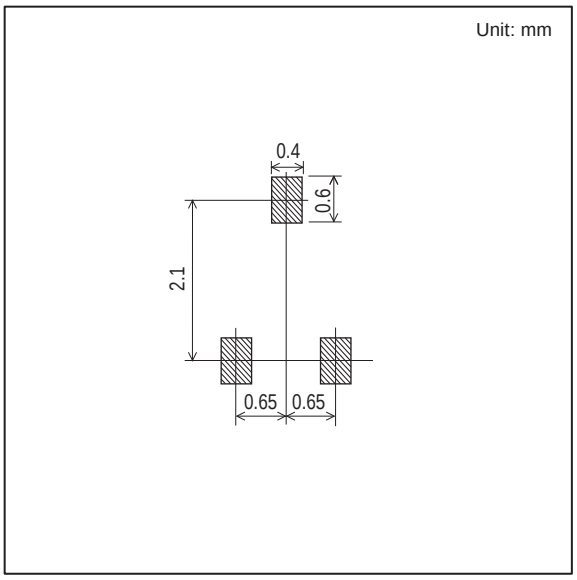
Those with pin 1 index on the feed hole side·····TL

Outline Drawing

SVC272-TL-E



Land Pattern Example



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