# SVC272

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



- · 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**

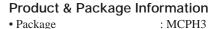
#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	VR		16	V
Junction Temperature	Тј		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



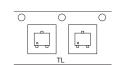
PackageJEITA, JEDEC

: SC-70, SOT-323

Marking

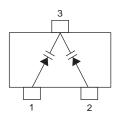
• Minimum Packing Quantity : 3,000 pcs./reel

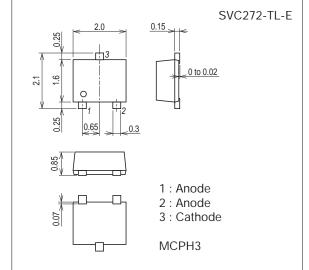
#### Packing Type : TL





**Electrical Connection** 







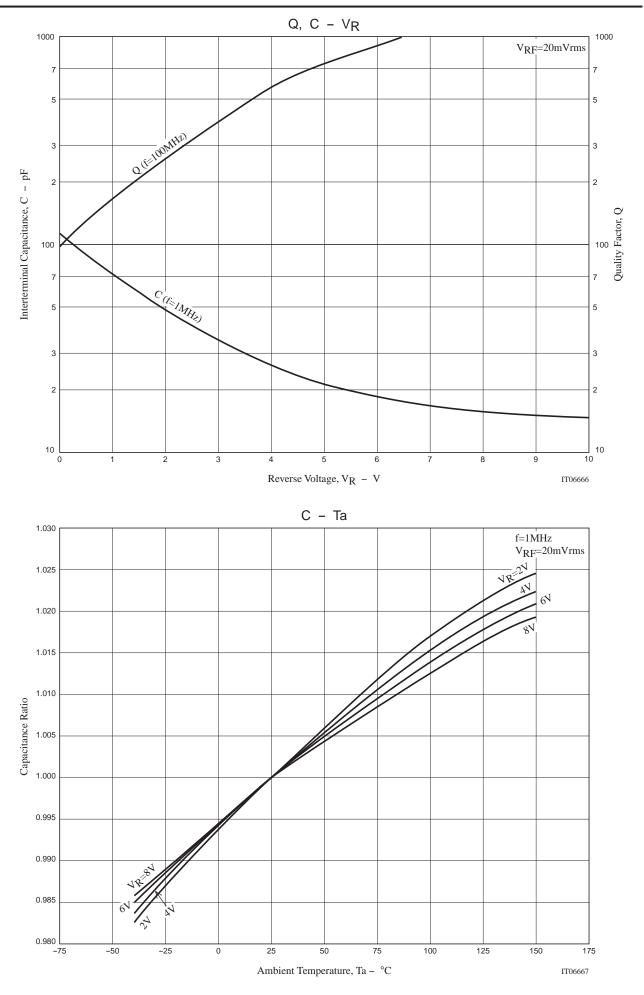
## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit	
Faranieter	Symbol	Conditions	min	typ	max	Unit	
Breakdown Voltage	V(BR)R	I <sub>R</sub> =10μA	14			V	
Reverse Current	IR	V <sub>R</sub> =10V			50	nA	
Interterminal Capacitance*	C2.0V	V <sub>R</sub> =2.0V, f=1MHz	44.91		49.82	pF	
	C8.0V	V <sub>R</sub> =8.0V, f=1MHz	14.07		18.55	pF	
Quality Factor	Q	VR=2.0V, f=100MHz	150				
Capacitance Ratio	CR	C2.0V / C8.0V	2.3				
Matching Tolerance	ΔCm	V <sub>R</sub> =2.0V, 8.0, f=1MHz (C max-C min) / C min×100			3.0	%	

Note)\* : Capacitance value per each diode.

#### **Ordering Information**

0					
Device	Package	Shipping	memo		
SVC272-TL-E	C272-TL-E MCPH3		Pb Free		



## Taping Specification SVC272-TL-E

1. Packing Format

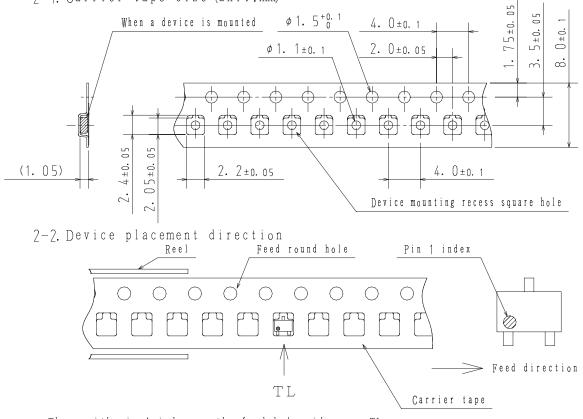
Package Name	Carrier Tape	Maximun Number of devices contained (pcs)			Packing format			
	Туре	Reel	Inner box	Outer box	Inner BOX (C-1)			Outer BOX (A-7)
МСРНЗ	MCPH3	3,000	15,000	90,000	5 ree	els containe	e d	6 inner boxes contained
					Dimensions:mm (external)			Dimensions:mm (external)
					18	$3 \times 72 \times$	:185	440×195×210
	<u>R</u> eel label, Inner box label <u>Outer box label</u>							
Packing met	h o d			(u 1	nit:r	nm)	The for	a label at the time of factory shipments, rm of a label may change in physical bution process.
°			<	(	59	>	<	108
	Туре		->	) TYPE OOOC 	00000	) 		TYPE CODE
	())) LOT (/////) Quan			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			-	QTY 0,000 PCS LEAD FREE *
	Will Quui	,	(Z	) SPECIAL			0	LOT 000000000
	Orig	i n		* Z 0 7 2 2 SSEMBLY:**** (				PACKAGE OCCORD
	A.		NOTE	2 (1)				*Z0722005310C* ASSEMBLY:**** (DIFFUSION:*****)
	Reel la	bel	Tł	ie LEAD Fl	REE 💥 of the	description terminal	n shows t is lead f	hat the surface ree.
				Label		JEITA	Phase	
				LEAD FRH	EE 3	JEITA P	hase 3A	

LEAD FREE 4

JEITA Phase 3

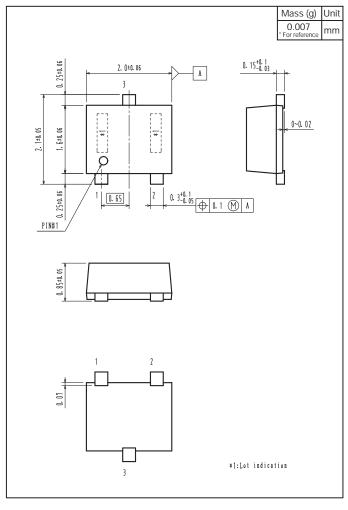
# 2. Taping configuration

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

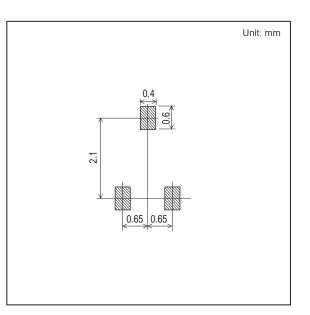


Those with pin 1 index on the feed hole side  $\cdots \cdots TL$ 

# Outline Drawing SVC272-TL-E



# Land Pattern Example



**SVC272** 

ON Semiconductor and the ON logo are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of SCILLC's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typical" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or use SCILLC products for any other application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ON Semiconductor: <u>SVC272-TL-E</u>