



ON Semiconductor®

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SVC276

Varactor Diode

Monolithic dual Varactor Diode for FM Tuning
16V, 50nA, $C_R=3.1$, $Q=100$, MCPH3

Features

- Twin type with a good linearity of C-V characteristic. Excels in large input characteristic
- Small package permits SVC276-applied sets to be compact and slim
- High capacitance ratio ($V_R=2.0$ to 8.0V)
- High Quality Factor

Specifications

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

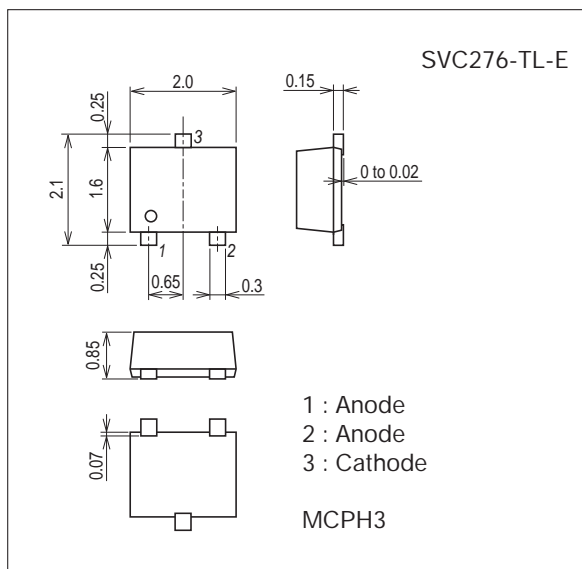
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	T_J		125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

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)

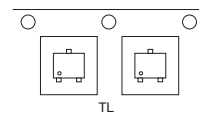
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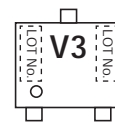
Product & Package Information

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

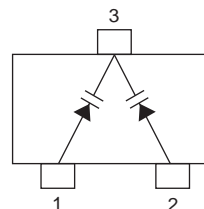
Packing Type : TL



Marking



Electrical Connection



SVC276

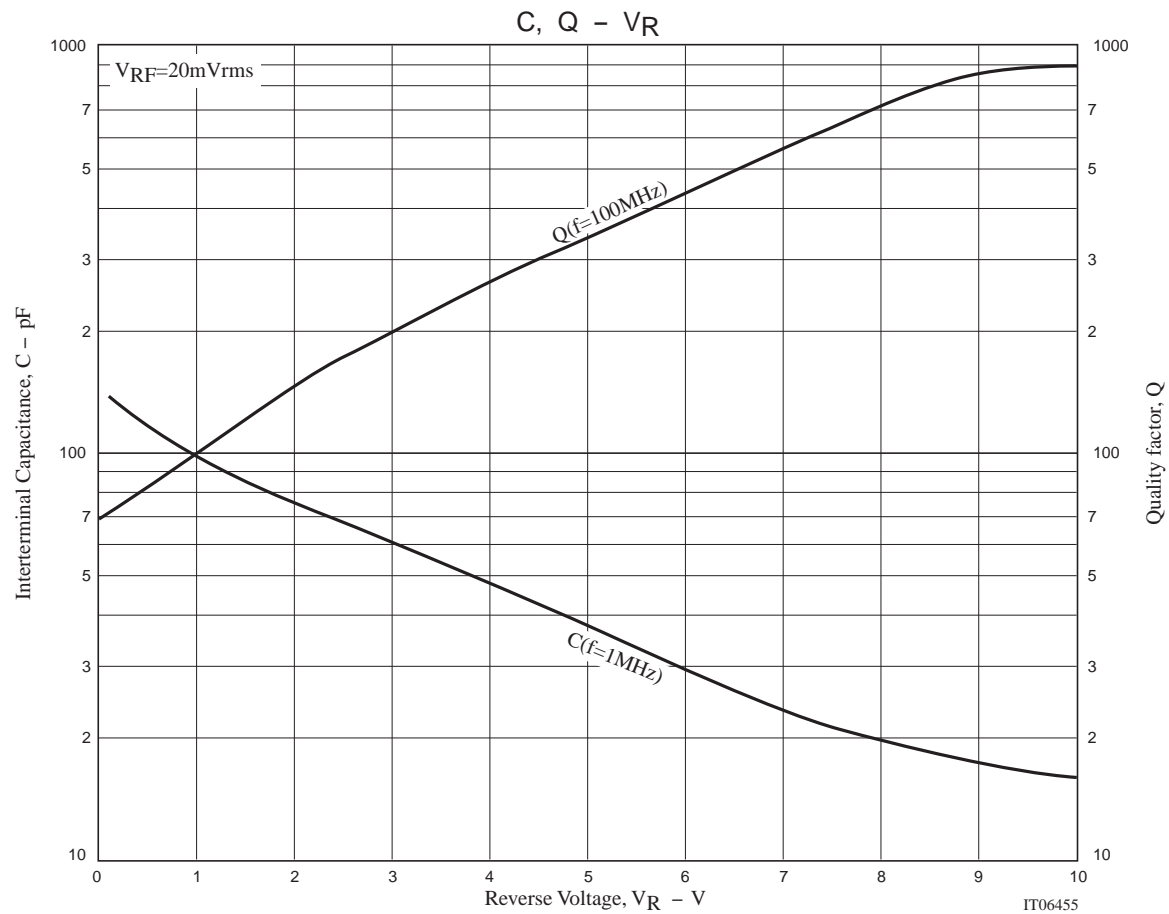
Electrical Characteristics at Ta=25°C

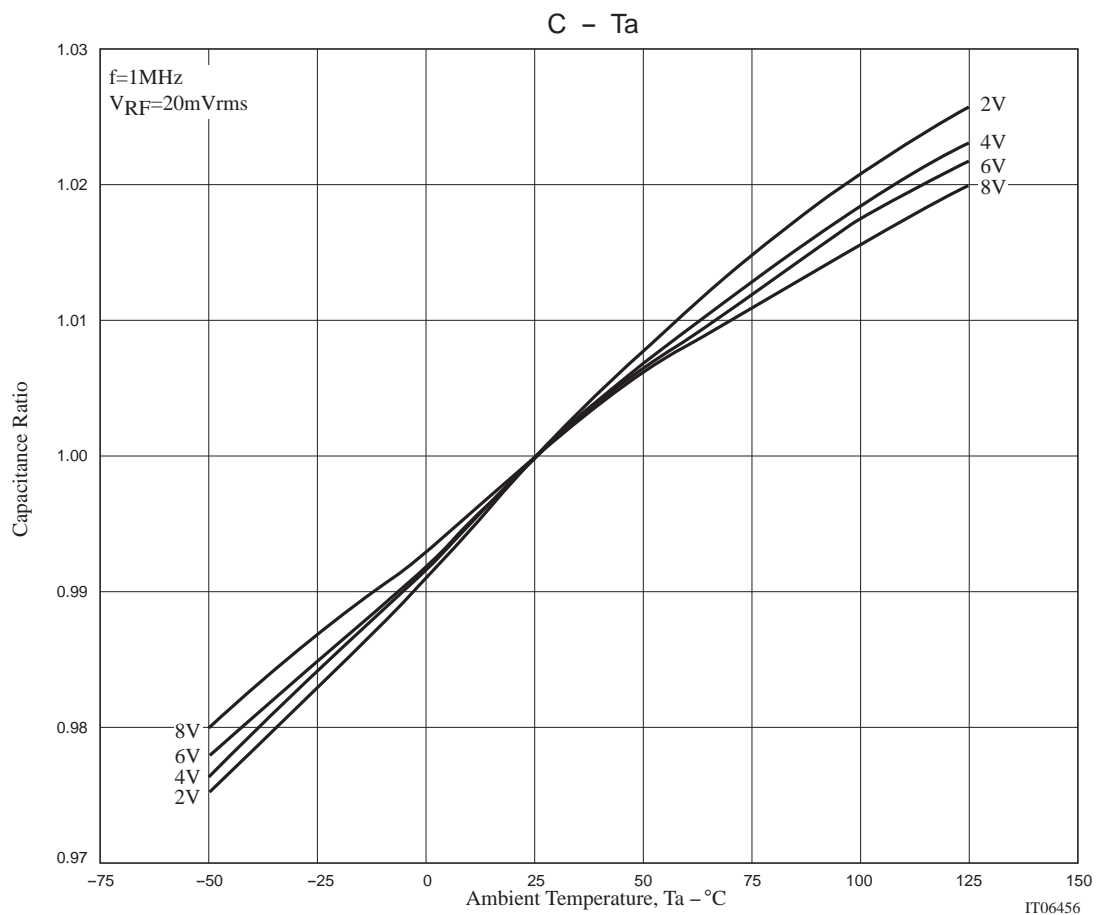
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V(BR)R	I _R =10μA	16			V
Reverse Current	I _R	V _R =10V			50	nA
Interterminal Capacitance*	C2.0V	V _R =2.0V, f=1MHz	73.72		79.77	pF
	C6.0V	V _R =6.0V, f=1MHz	25.50		33.61	pF
	C8.0V	V _R =8.0V, f=1MHz	18.04		23.78	pF
Quality Factor	Q	V _R =2.0V, f=100MHz	100			
Capacitance Ratio	C _R	C2.0V / C8.0V	3.1			

Note)* : Capacitance value per each diode

Ordering Information

Device	Package	Shipping	memo
SVC276-TL-E	MCPH3	3,000pcs./reel	Pb Free





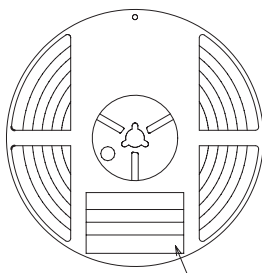
Taping Specification

SVC276-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)

(P) TYPE	000000000
(1) LOT	00
(Q) QTY	0,000 (1) LEAD FREE *
(Z) SPECIAL	*Z0722005310C*
ASSEMBLY	**** (DIFFUSION:****)

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

TYPE CODE	*****
TYPE	*****
QTY	0,000 PCS (1) LEAD FREE *
LOT	*****
PACKAGE	*****
SPECIAL	*Z0722005310C*
ASSEMBLY	**** (DIFFUSION:****)

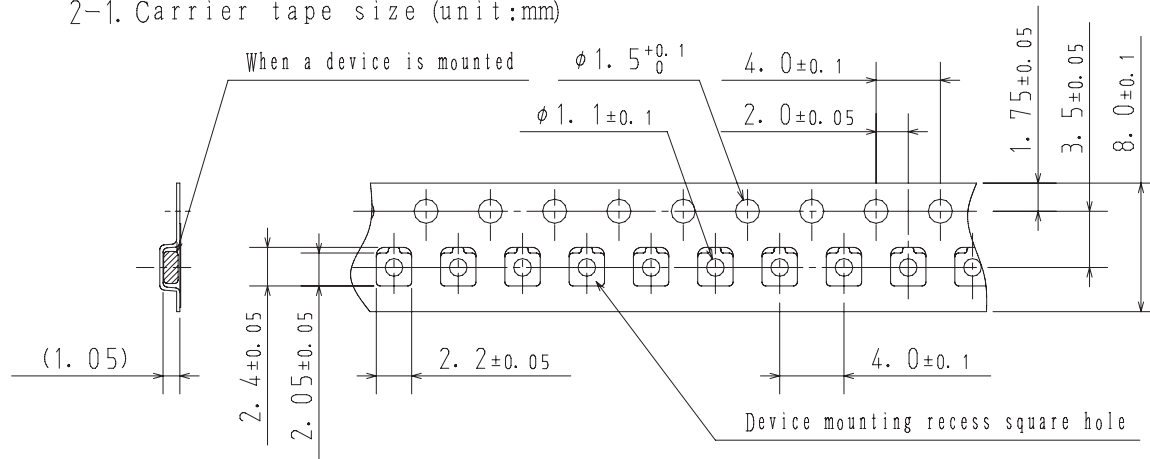
NOTE (1)

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

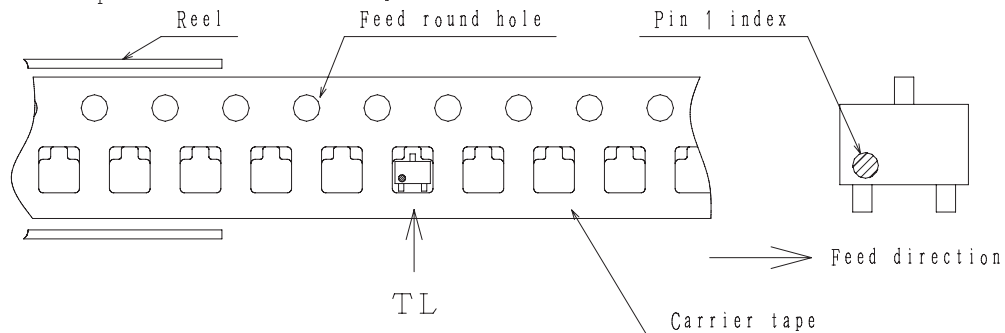
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

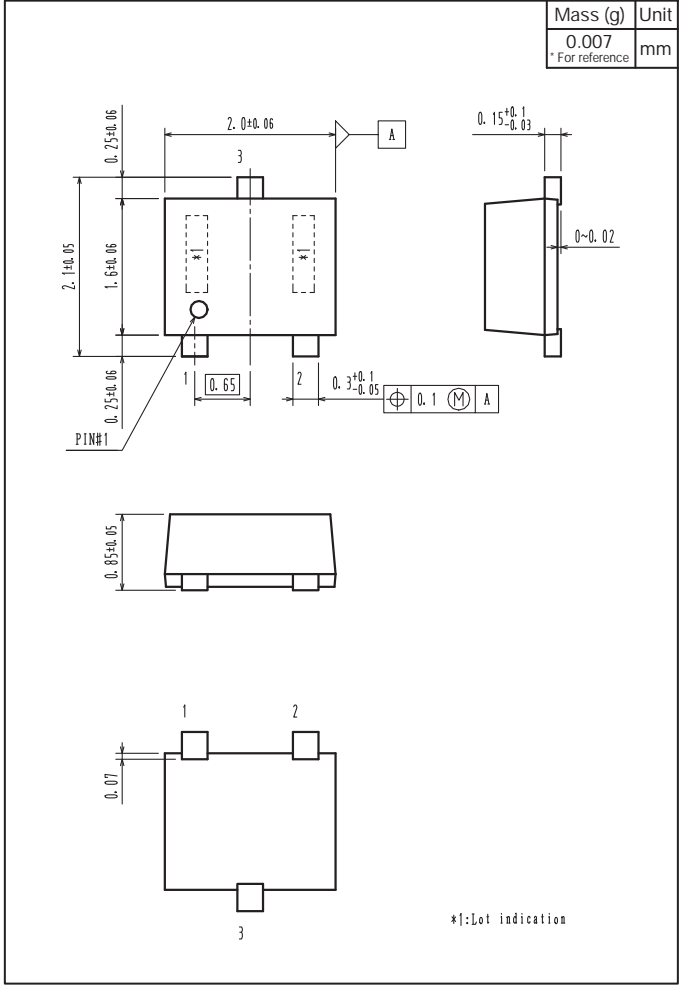


2-2. Device placement direction

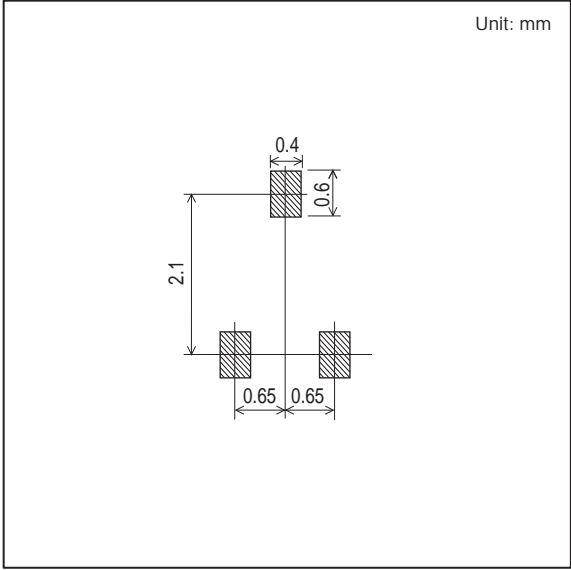


Those with pin 1 index on the feed hole side.....TL

Outline Drawing
SVC276-TL-E



Land Pattern Example



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