Ordering number : EN7280A

SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

Diffused Junction Type Silicon Diode

SVC230 — 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 CP package permits SVC230 applied sets to be compact and slim
- Possible to be shipped in tape reel packaging, which facilitates automatic insertion
- High Q

Specifications

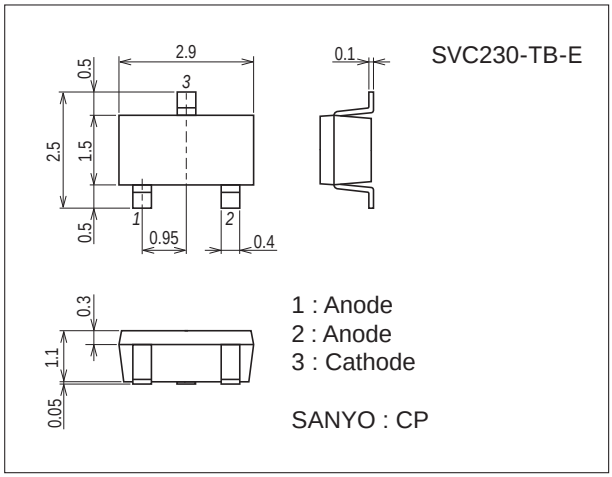
Absolute Maximum Ratings at Ta=25°C

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

Package Dimensions

unit : mm (typ)

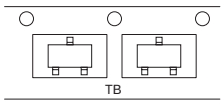
7013A-006



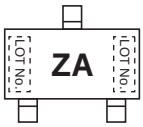
Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

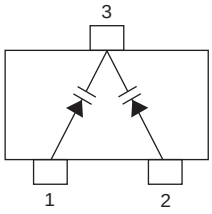
Packing Type: TB



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	16			V
Reverse Current	I_R	V_R=10V			50	nA
Interterminal Capacitance *1	C2V	V_R=2.0V, f=1MHz	44.0		46.5	pF
	C8V	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, (Cmax×Cmin) / Cmin×100			3	%

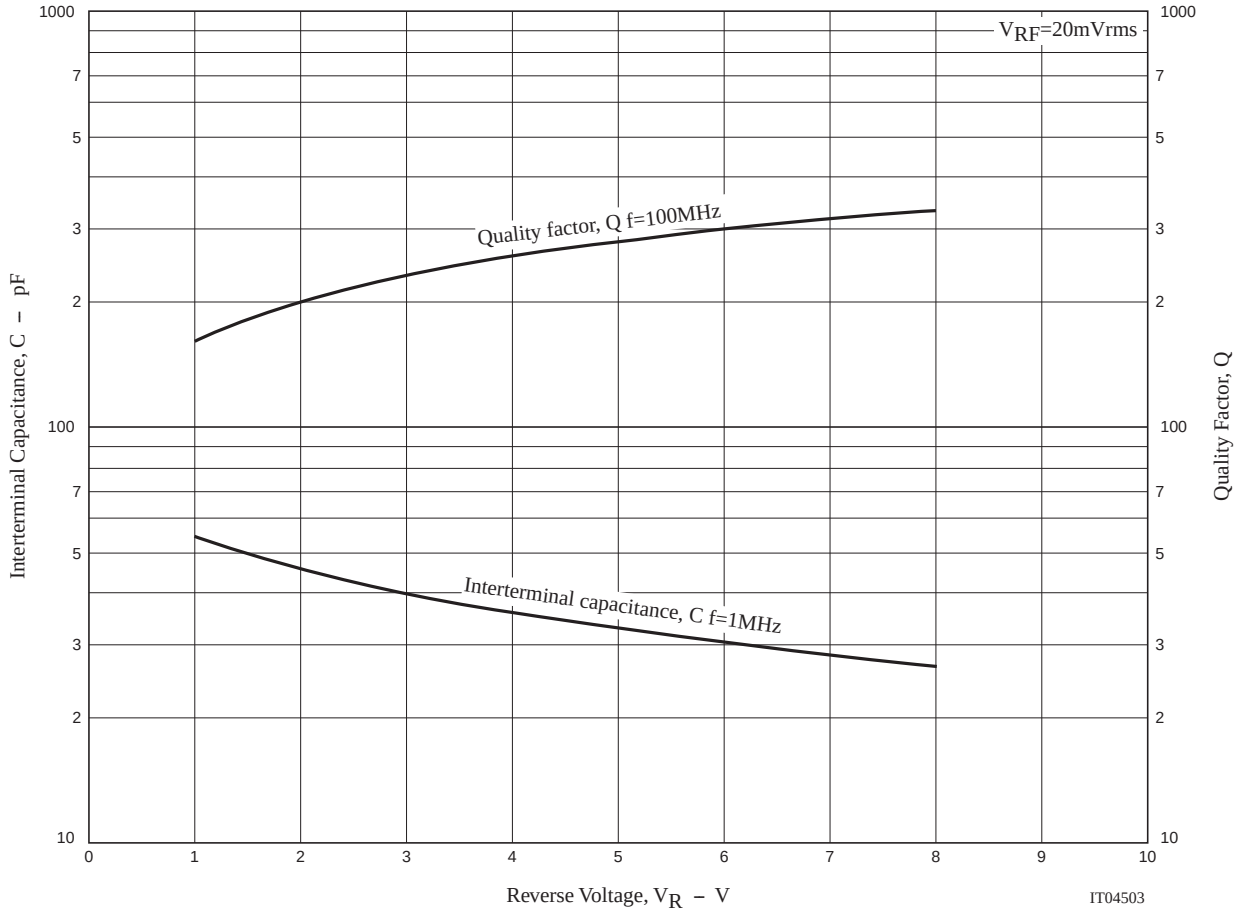
Note) *1 : Capacitance value of one diode

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

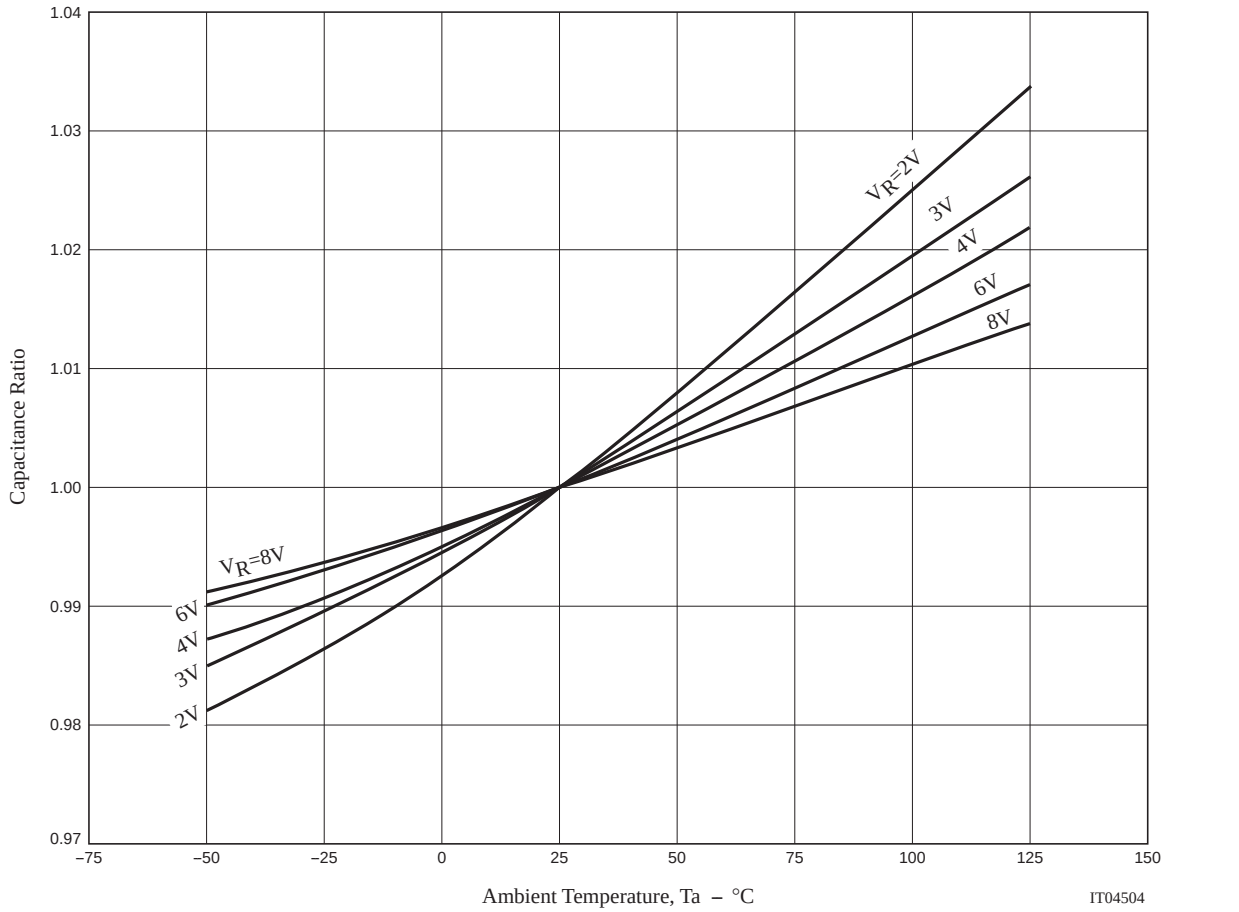
Ordering Information

Device	Package	Shipping	memo
SVC230-TB-E	CP	3,000pcs./reel	Pb Free

C, Q – V_R


V_{RF}=20mVrms
Quality factor, Q f=100MHz
Interterminal capacitance, C f=1MHz
Interterminal Capacitance, C – pF
Quality Factor, Q
Reverse Voltage, V_R – V
IT04503

C – Ta


V_R=2V
3V
4V
6V
8V
V_R=8V
6V
4V
3V
2V
Capacitance Ratio
Ambient Temperature, Ta – °C
IT04504

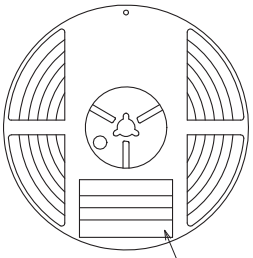
Taping Specification

SVC230-TB-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)
CP	CP	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

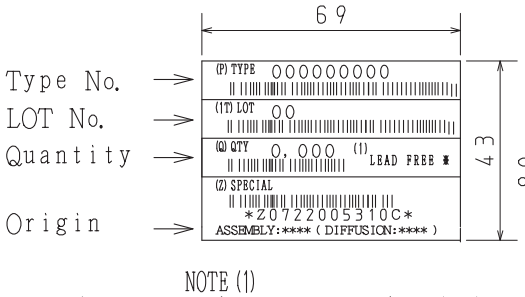
Packing method



Reel label

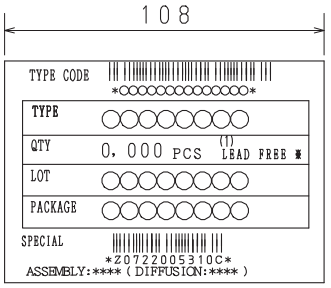
Reel label, Inner box label

(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.

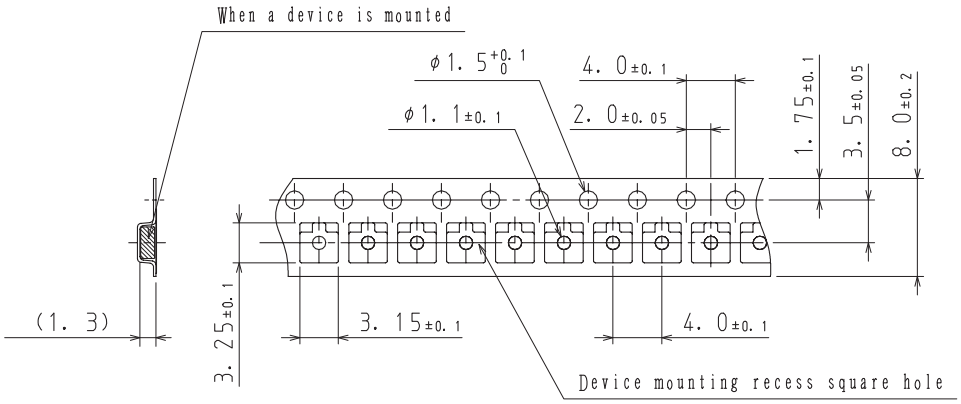


NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

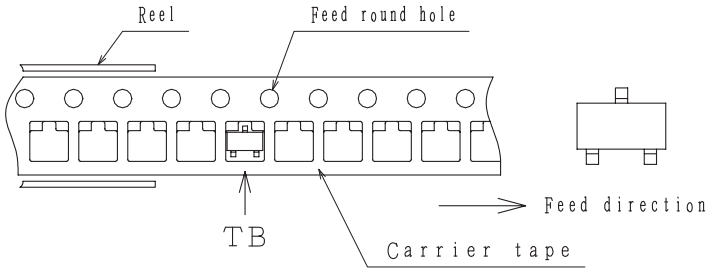
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



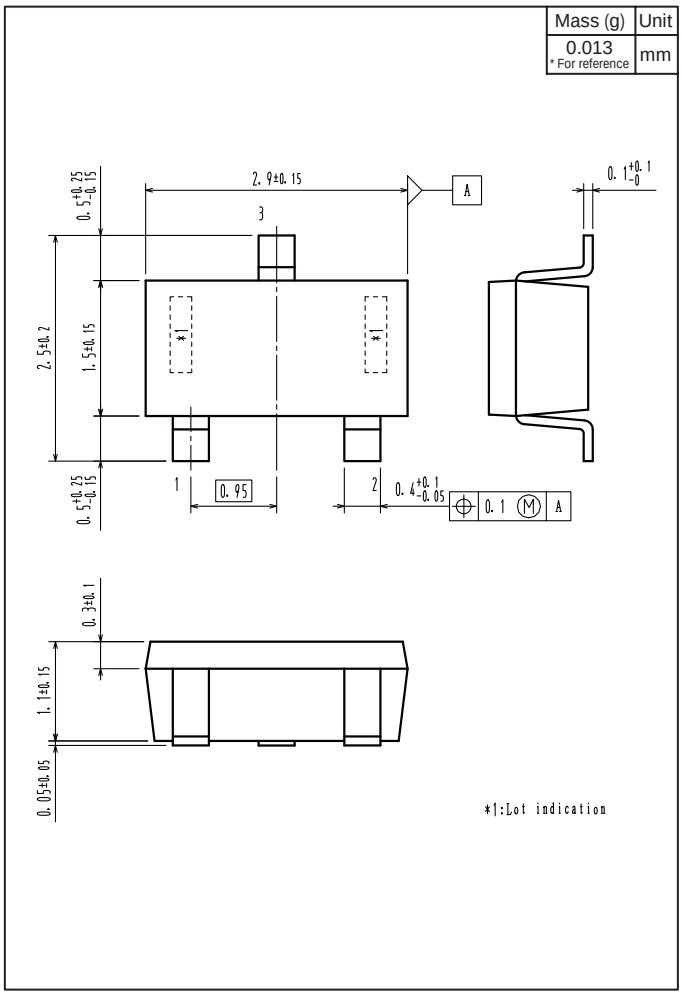
2-2. Device placement direction



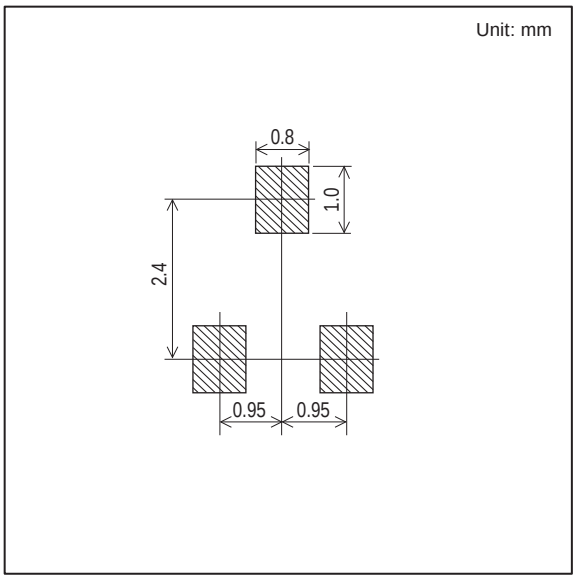
Those with one electrode terminal on the feed hole side……TB

Outline Drawing

SVC230-TB-E



Land Pattern Example



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