



SVC230 — Varactor Diode for FM Receiver Electronic Tuning Applications

Diffused Junction Type Silicon Diode

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

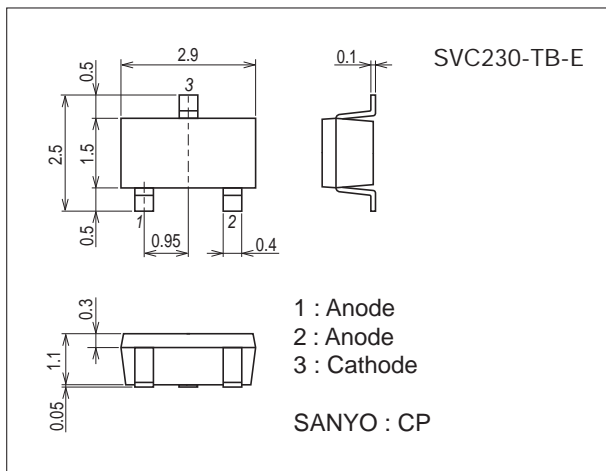
Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------|------------|-------------|------|
| Reverse Voltage | V_R | | 16 | V |
| Junction Temperature | T_j | | 125 | °C |
| Storage Temperature | T_{stg} | | -55 to +125 | °C |

Package Dimensions

unit : mm (typ)

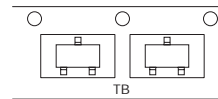
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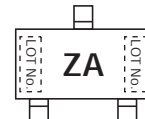
Product & Package Information

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

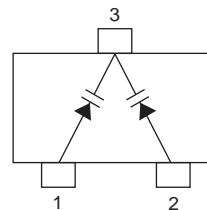
Packing Type: TB



Marking



Electrical Connection



SVC230

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, (C _{max} ×C _{min}) / C _{min} ×100 | | | 3 | % |

Note) *1 : Capacitance value of one diode

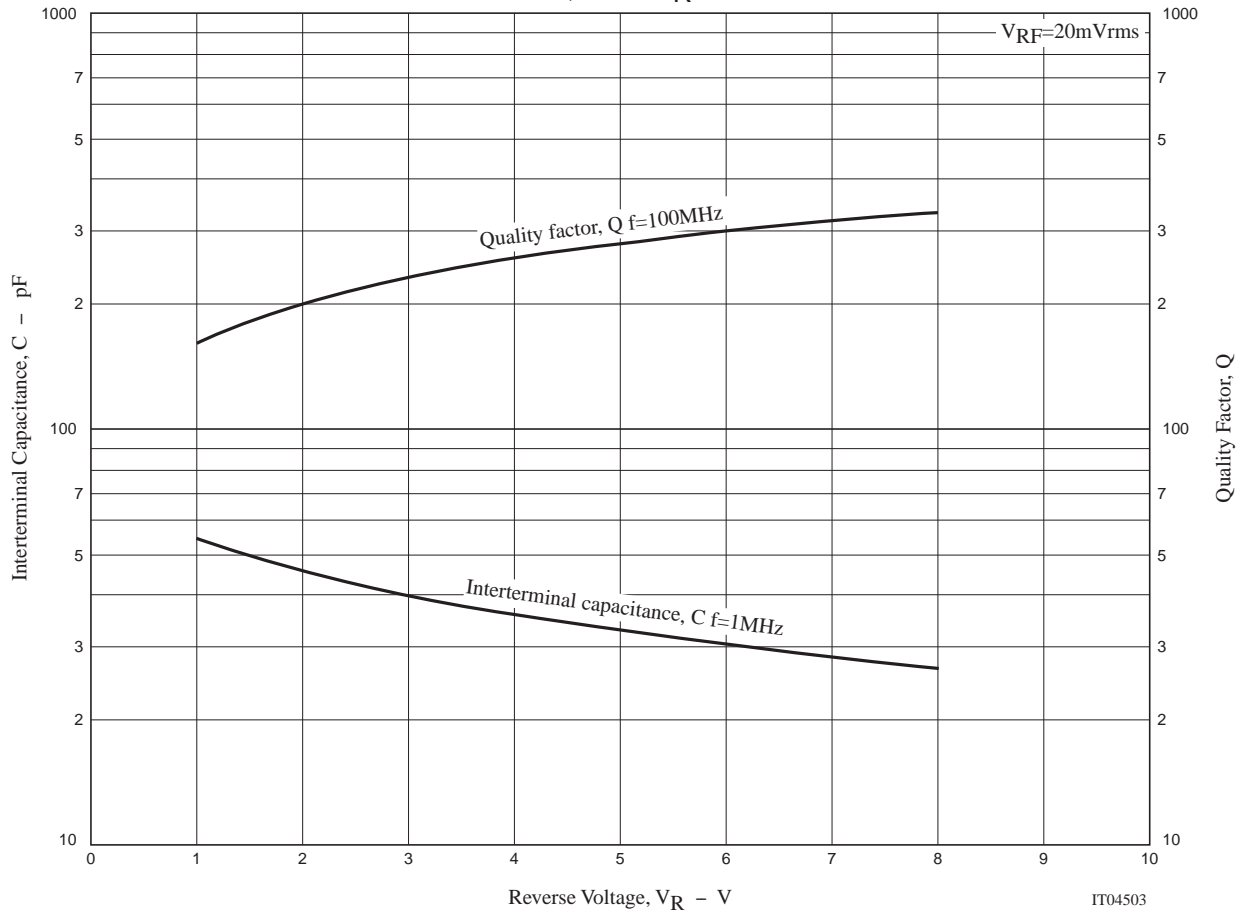
*2 : Matching Tolerance is valid for the devices in one taping reel.

Ordering Information

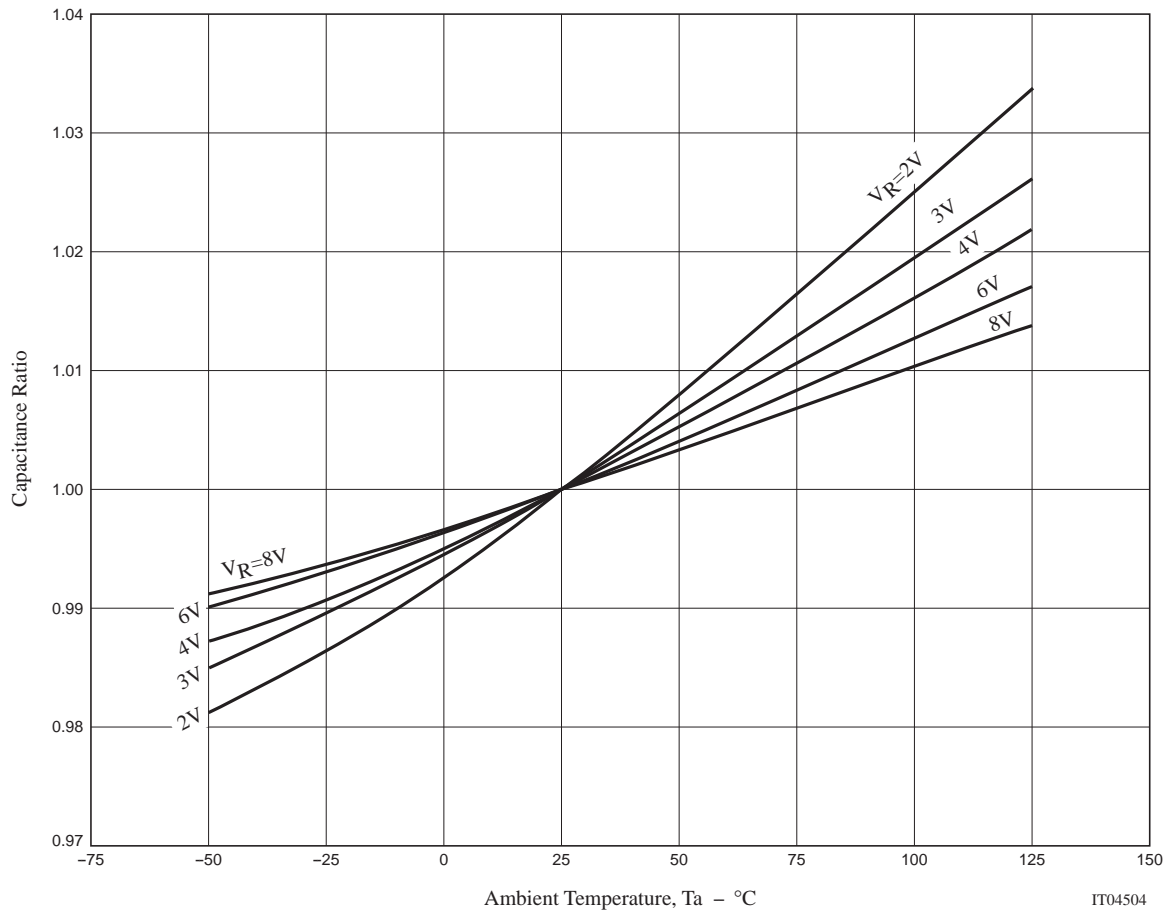
| Device | Package | Shipping | memo |
|-------------|---------|----------------|---------|
| SVC230-TB-E | CP | 3,000pcs./reel | Pb Free |

SVC230

C, Q - V_R



C - T_a



Taping Specification

SVC230-TB-E

1. Packing Format

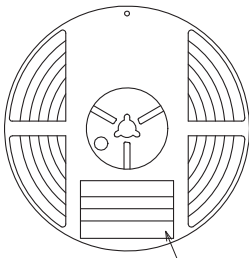
| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) | | | Packing format | |
|--------------|-------------------|---|-----------|-----------|---|--|
| | | Reel | Inner box | Outer box | Inner BOX (C-1) | Outer BOX (A-7) |
| CP | CP | 3,000 | 15,000 | 90,000 | 5 reels contained Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

Reel label, Inner box label
(unit:mm)

Outer box label

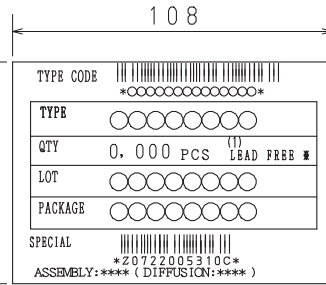
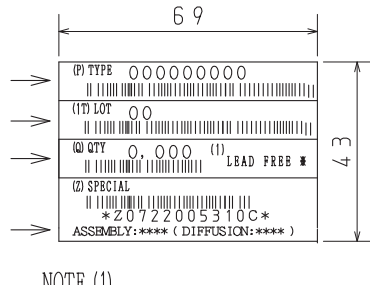
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No.
LOT No.
Quantity
Origin



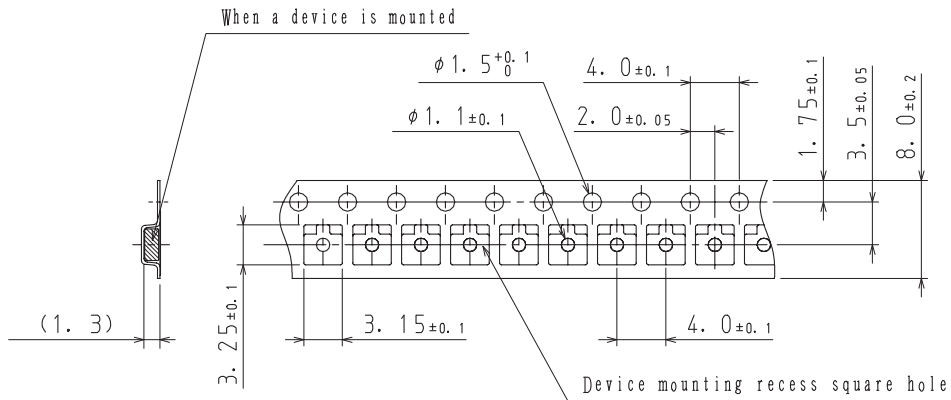
NOTE (1)

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

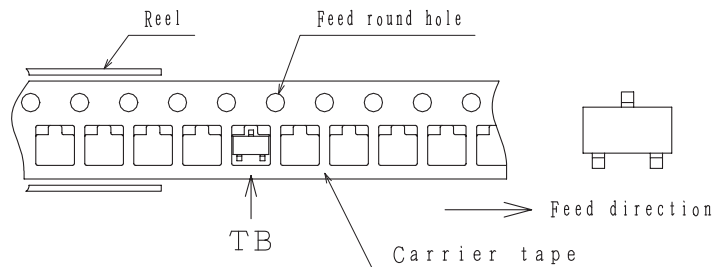
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



2-2. Device placement direction

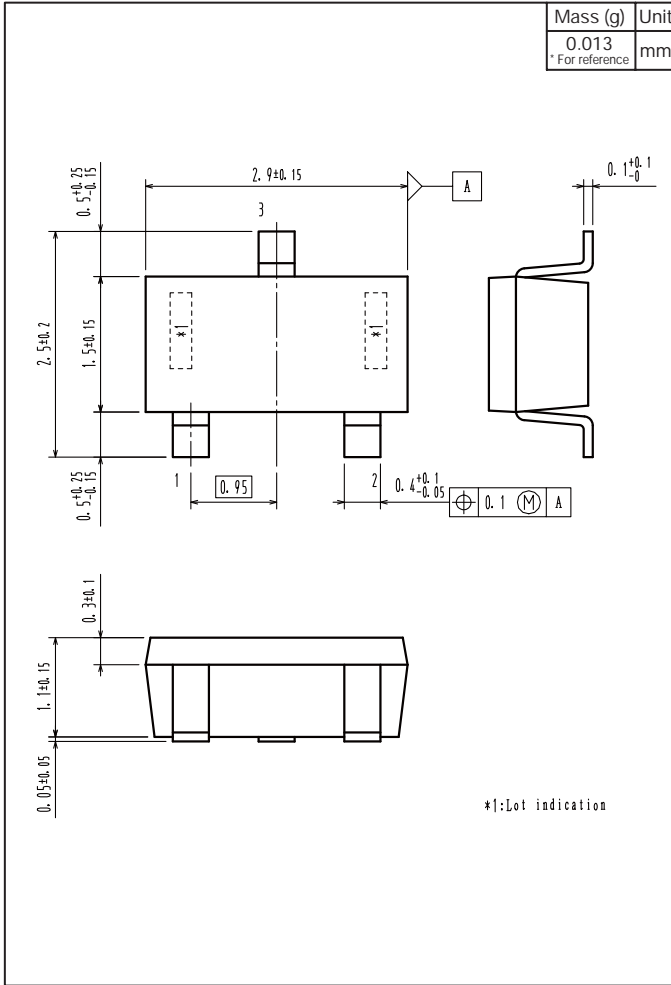


Those with one electrode terminal on the feed hole side.....TB

SVC230

Outline Drawing

SVC230-TB-E



Land Pattern Example



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