



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## 1SV249 — Silicon Epitaxial Type PIN Diode for VHF, UHF, AGC Applications

### Features

- Very small-sized package facilitates high-density mounting and permits 1SV249-applied equipment to be made smaller
- Small interterminal capacitance ( $C=0.23\text{pF}$  typ)
- Small forward series resistance ( $r_s=4.5\Omega$  max)

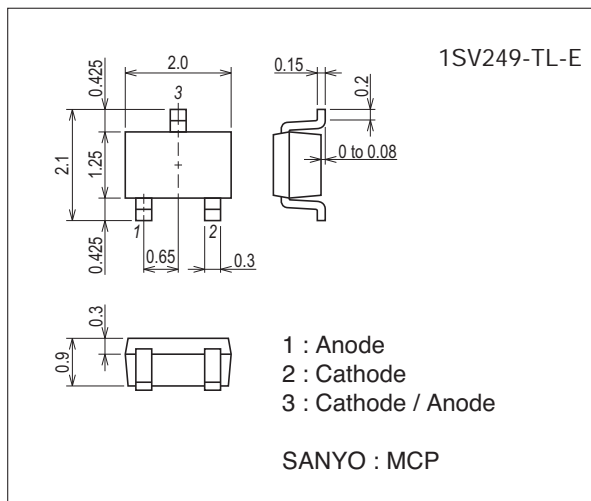
### Specifications

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

| Parameter                   | Symbol    | Conditions | Ratings     | Unit             |
|-----------------------------|-----------|------------|-------------|------------------|
| Reverse Voltage             | $V_R$     |            | 50          | V                |
| Forward Current             | $I_F$     |            | 50          | mA               |
| Allowable Power Dissipation | P         |            | 100         | mW               |
| Junction Temperature        | $T_j$     |            | 125         | $^\circ\text{C}$ |
| Storage Temperature         | $T_{stg}$ |            | -55 to +125 | $^\circ\text{C}$ |

### Package Dimensions

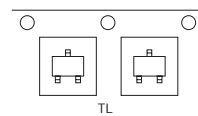
unit : mm (typ)  
7023A-007



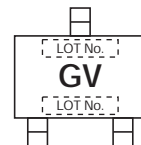
### Product & Package Information

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

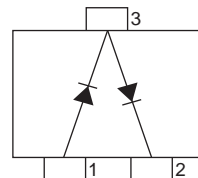
### Packing Type: TL



### Marking



### Electrical Connection



# 1SV249

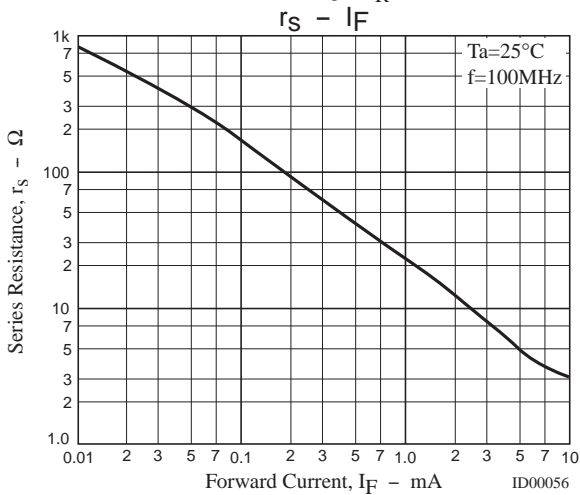
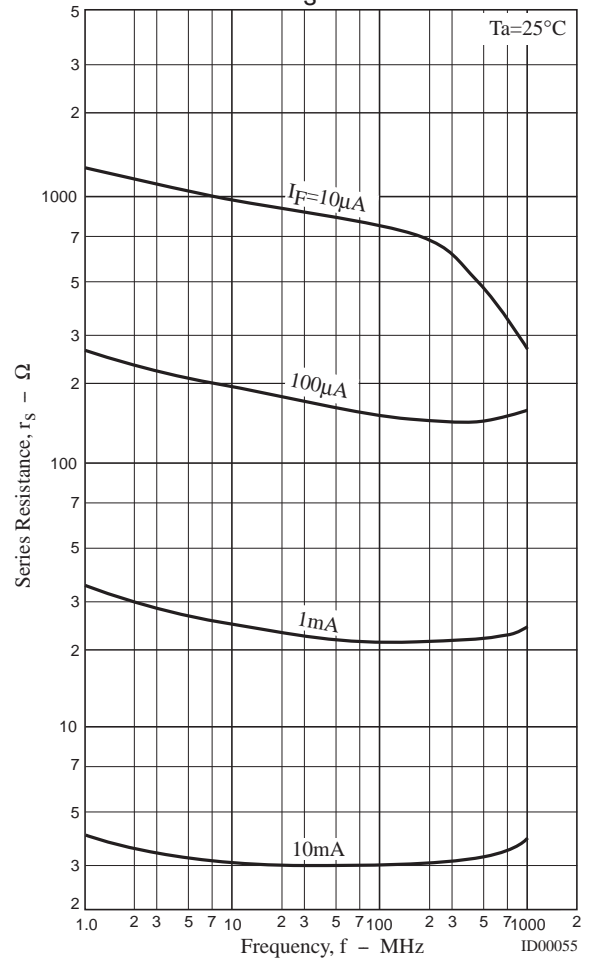
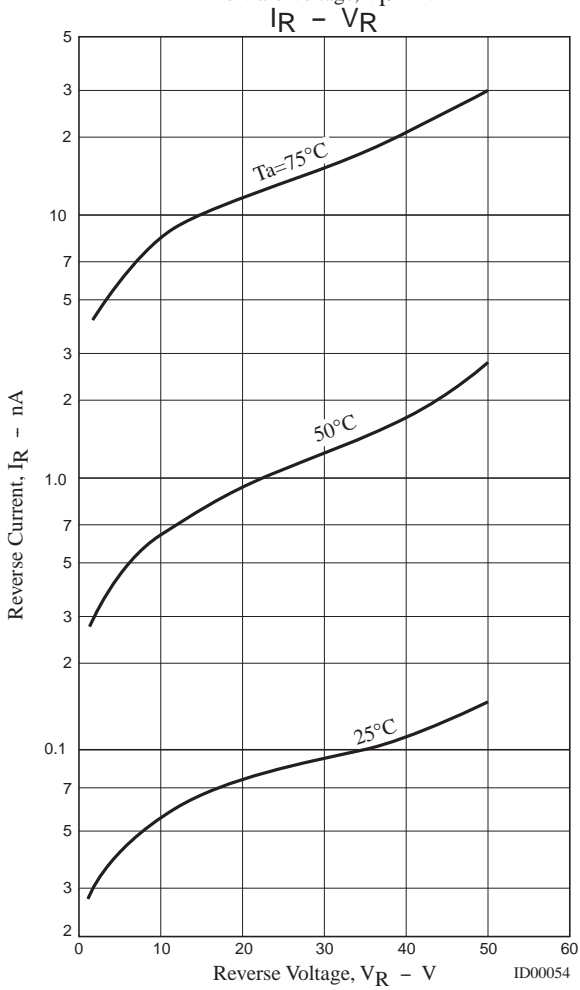
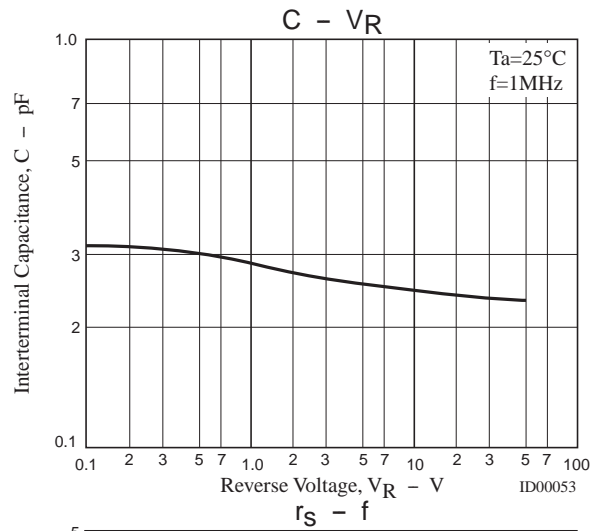
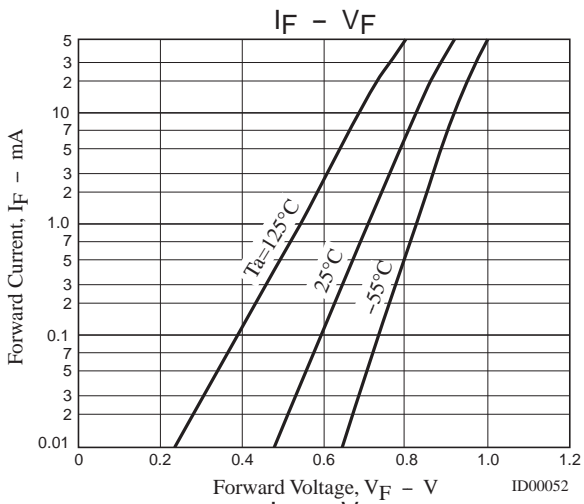
## Electrical Characteristics at Ta=25°C

| Parameter                 | Symbol         | Conditions                     | Ratings |      |     | Unit |
|---------------------------|----------------|--------------------------------|---------|------|-----|------|
|                           |                |                                | min     | typ  | max |      |
| Reverse Voltage           | V <sub>R</sub> | I <sub>R</sub> =10μA           | 50      |      |     | V    |
| Reverse Current           | I <sub>R</sub> | V <sub>R</sub> =50V            |         |      | 0.1 | μA   |
| Forward Voltage           | V <sub>F</sub> | I <sub>F</sub> =50mA           |         | 0.92 |     | V    |
| Interterminal Capacitance | C              | V <sub>R</sub> =50V, f=1MHz    |         | 0.23 |     | pF   |
| Series Resistance         | r <sub>s</sub> | I <sub>F</sub> =10mA, f=100MHz |         |      | 4.5 | Ω    |

Note : The specifications shown above are for each individual diode.

## Ordering Information

| Device      | Package | Shipping       | memo    |
|-------------|---------|----------------|---------|
| 1SV249-TL-E | MCP     | 3,000pcs./reel | Pb Free |



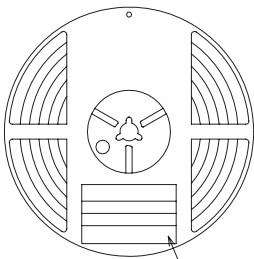
Embossed Taping Specification

1SV249-TL-E

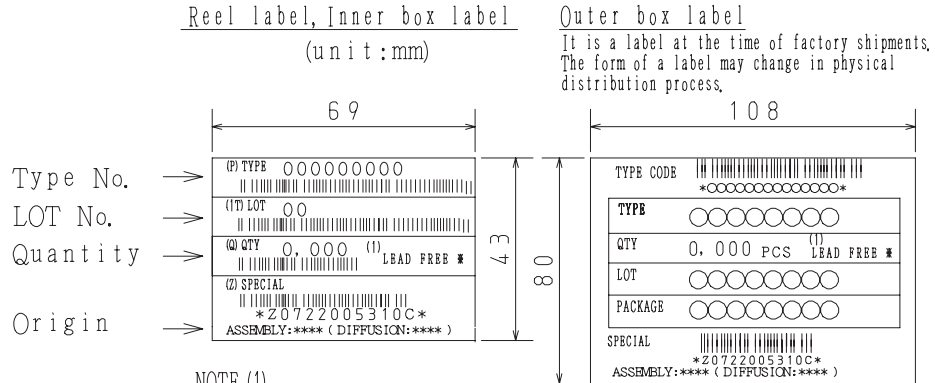
1. Packing Format

| 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)  |
| MCP          | MCP               | 3,000                                     | 15,000    | 90,000    | 5 reels contained<br>Dimensions:mm (external)<br>183×72×185 | 6 inner boxes contained<br>Dimensions:mm (external)<br>440×195×210 |

Packing method



Reel label



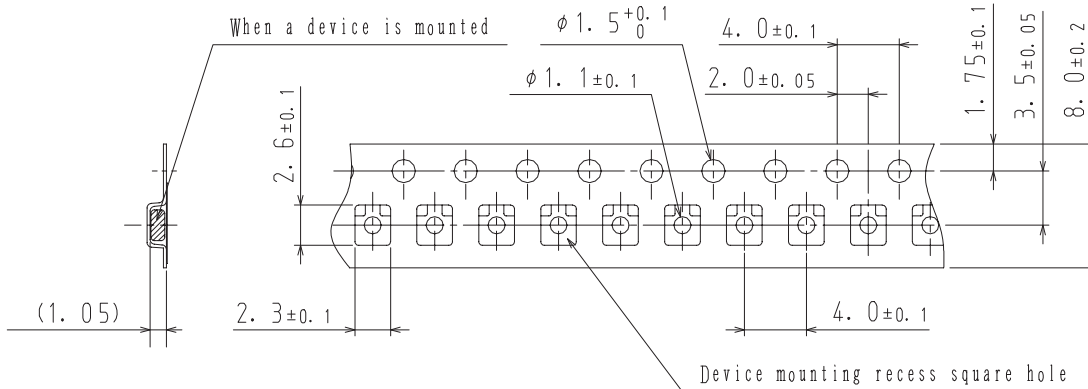
NOTE (1)

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

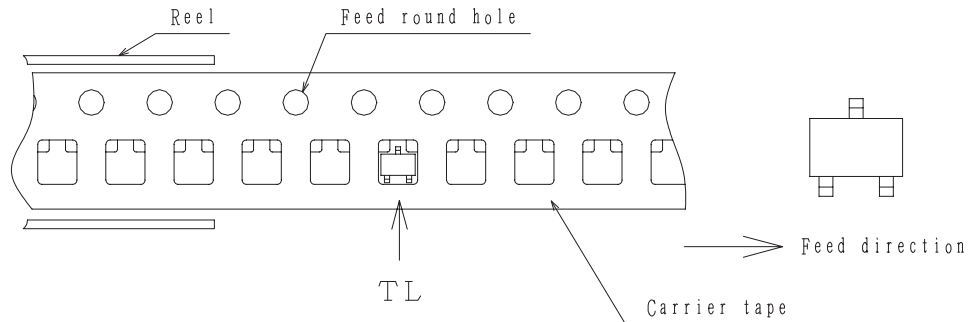
| Label       | JEITA Phase    |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3  |

2. Taping configuration

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



2-2. Device placement direction

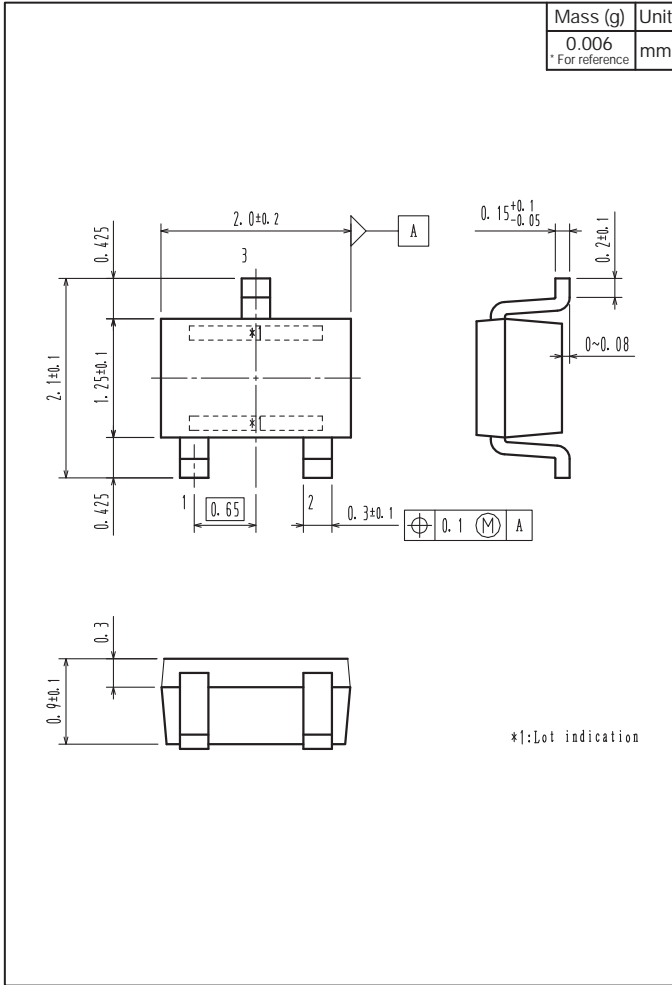


Those with oen electrode terminal on the feed hole side.....TL

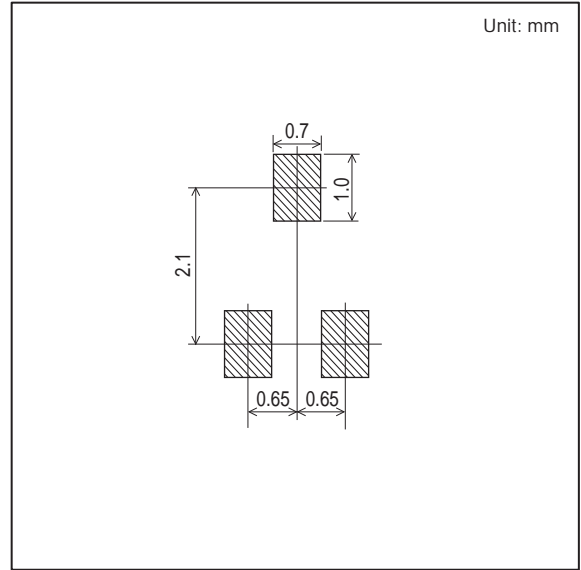
# 1SV249

## Outline Drawing

1SV249-TL-E



## Land Pattern Example



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