

**SGD-100T** 

**GaAs Schottky Barrier Diode** 

# C to X Band, Mixer, Modulator Applications

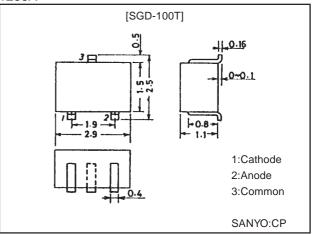
### **Features**

- · Very small-sized ceramic package.
- $\cdot$  Less parasite components, conversion loss.

## **Package Dimensions**

unit:mm

1235A



### **Specifications**

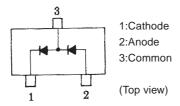
### **Absolute Maximum Ratings at Ta = 25°C (Per element)**

| Parameter                 | Symbol          | Conditions | Ratings     | Unit |
|---------------------------|-----------------|------------|-------------|------|
| Peak Reverse Voltage      | V <sub>RM</sub> |            | 4.5         | V    |
| Reverse Voltage           | V <sub>R</sub>  |            | 4           | V    |
| Peak Forward Current      | IFM             |            | 150         | mA   |
| Average Rectified Current | lo              |            | 50          | mA   |
| Junction Temperature      | Tj              |            | 150         | °C   |
| Storage Temperature       | Tstg            |            | -55 to +150 | °C   |
| Mounting Temperature      | Tm              | 10ns       | 230         | °C   |

#### **Electrical Characteristics at Ta = 25°C (Per element)**

| Parameter                 | Symbol         | Conditions           | Ratings |     |     | Unit  |
|---------------------------|----------------|----------------------|---------|-----|-----|-------|
|                           | Symbol         |                      | min     | typ | max | Offic |
| Forward Voltage           | ٧ <sub>F</sub> | I <sub>F</sub> =20mA |         | 0.8 | 0.9 | V     |
| Reverse Voltage           | V <sub>R</sub> | I <sub>R</sub> =10μA | 4.0     | 6.0 |     | V     |
| Interterminal Capacitance | Ct             | V=0V, f=1MHz         |         | 0.3 | 0.4 | pF    |
| Series Resistance         | R <sub>S</sub> | I <sub>F</sub> =20mA |         | 1.5 | 3.0 | Ω     |

#### **Electrical Connection**



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