



# SGD102

GaAs Schottky Barrier Diode

## C to X Band, Mixer, Modulator Applications

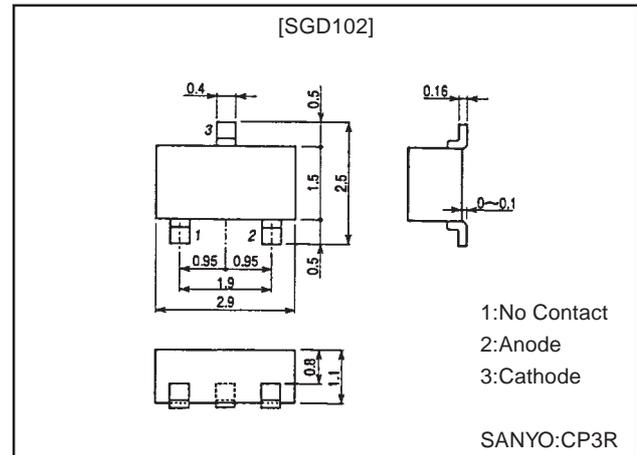
### Features

- Ultrasmall-sized package.
- Less parasitic components, conversion loss.

### Package Dimensions

unit:mm

1276



### Specifications

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

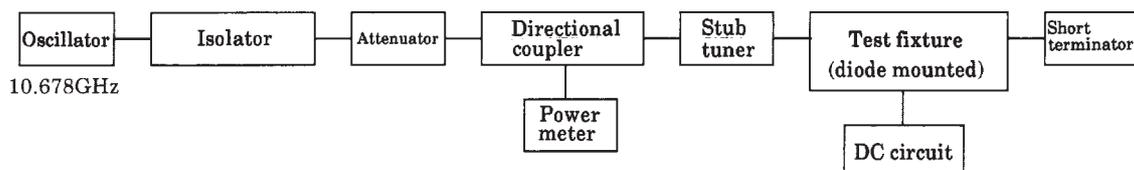
Parameter	Symbol	Conditions	Ratings	Unit
Peak Reverse Voltage	$V_{RM}$		4.5	V
Reverse Voltage	$V_R$		4.0	V
Peak Forward Current	$I_{FM}$		150	mA
Average Rectified Current	$I_O$		50	mA
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	$V_F$	$I_F=20\text{mA}$		0.8	0.9	V
Reverse Voltage	$V_R$	$I_R=10\mu\text{A}$	4.0	6.0		V
Interterminal Capacitance	$C_t$	$V=0\text{V}, f=1\text{MHz}$		0.3	0.4	pF
Series Resistance	$R_S$	$I_F=20\text{mA}$		1.5	3.0	$\Omega$
Conversion Loss	$L_C$	Measured using the DC incremental method* $f=10.678\text{GHz}, P=10\text{mW}$		4.0		dB

Note)\*: Conversion loss measurement diagram

For measurement of conversion loss, do a sampling from the lot population and use the DC incremental method for measurement.



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