Ordering number : EN3056

SANYO No.3056

SBL Series

Beam Lead Type GaAs Schottky Barrier Diode

C to Millimeter Band Mixer, Detector, Modulator Applications

Features

- Facilitates easy mounting on MIC (Microwave IC)
- Less parasitic components, conversion loss
- Usable in millimeter wave band
- In addition to 7 single types, 20 integrated types are available.

Applications

- SBL-121, 122 : C to X band use, 12GHz band DBS receiving equipment
- SBL-801 to 804 : Submillimeter wave, millimeter wave band communications equipment, measuring instruments
- SBL-221 : 22GHz band DBS receiving equipment

Absolute Maximum Ratings at Ta = 25°C

			SBL-121	122	801	802	221	803	804	unit
Reverse Voltage	V_R		→	→	→	→	→	→	−4	V
Peak Reverse Voltage	V_{RM}		→	→	→	→	→	→	−4.5	V
Average Rectified Current	I_O		→	→	→	50	→	→	30	mA
Peak Forward Current	I_{FM}		→	→	→	150	→	→	130	mA
Storage Temperature	Tstg		→	→	→	→		−65 to +150		°C
Junction Temperature	Tj		→	→	→	→	→	→	150	°C
Mounting Condition	Tm	10 s	→	→	→	→	→	→	200	°C

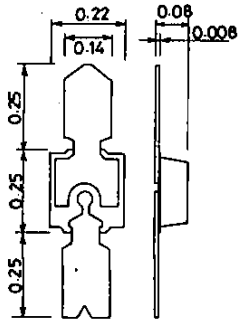
Electrical Characteristics at Ta = 25°C

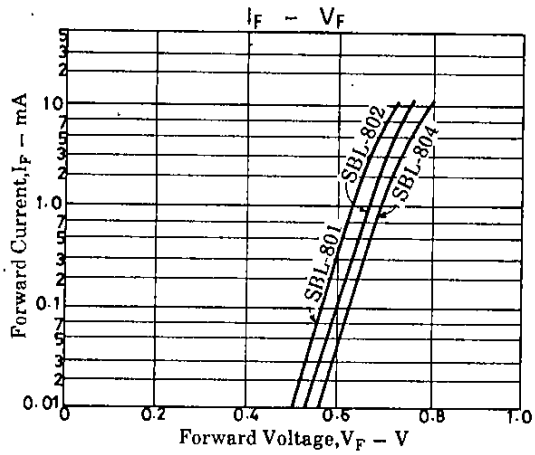
			SBL-121	122	801	802	221	803	804	unit
Reverse Voltage	V_R	$I_R = -10\mu A$	→	→	→	→	→	→	−4	V
Forward Voltage	V_F	$I_F = 30mA$	0.9	1.0	0.9	1.0				V
		$I_F = 20mA$					1.1	1.1	1.2	V
Total Capacitance	Ct	V = 0V, f = 1MHz	0.25	0.30	0.20	0.15	0.08	0.10	0.08	pF max
Series Resistance	Rs	$I_F = 30mA$	2	3	2	4				Ω max
		$I_F = 20mA$					6	6	10	Ω max
Conversion Loss	L_C	$f = 12GHz, P_{LO} = 10mW$	2.5	3.5						dB
		$f = 20GHz, P_{LO} = 10mW$			4.5	4.5		5.0	5.0	dB
		$f = 22GHz, P_{LO} = 10mW$					4.5			dB

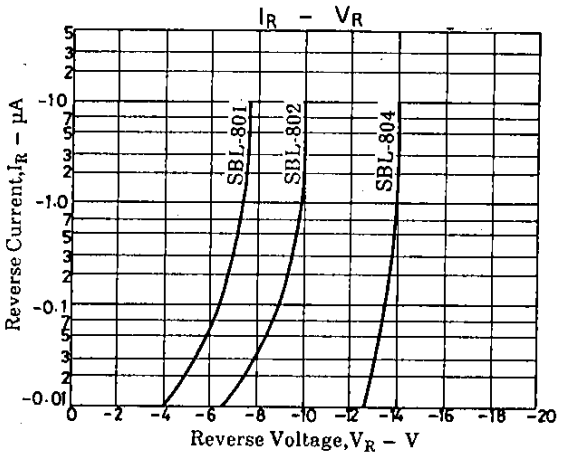
Electrical Connection

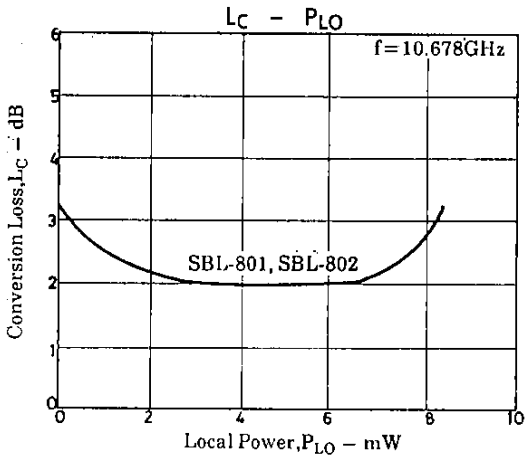
Package Dimensions 1226

(unit: mm)









Note : Fot the SBL-801, 802, 803, 804, the integrated types shown below are available in addition to single types. For details, contact our sales offices.

Electrical Connection