

SANYO

No.3057

SPD Series

Package Type GaAs Schottky Barrier Diode

C to Ku Band Mixer,
Detector, Modulator Applications

Features

- Very small-sized ceramic package
- Less parasitic components, conversion loss
- Many types : 5 single types, 10 integrated types

Applications

- SPD-121 : C to X band use, DBS, measuring instruments
- SPD-121M : C to X band use, TVRO, DBS
- SPD-221 : X to Ku band use, communications equipment
- SPD-121P, 122P : C to X band use, mixer, modulator

Absolute Maximum Ratings at Ta = 25°C

		SPD-121	121M	221	121P	122P	unit
Reverse Voltage	V_R	→	→	→	→	-4	V
Peak Reverse Voltage	V_{RM}	→	→	→	→	-4.5	V
Average Rectified Current	I_O	→	→	→	→	50	mA
Peak Forward Current	I_{FM}	→	→	→	→	150	mA
Storage Temperature	T_{stg}	→	→	→	→	-65 to +150	°C
Junction Temperature	T_j	→	→	→	→	150	°C
Mounting Condition	T_m	→	→	→	→	230	°C

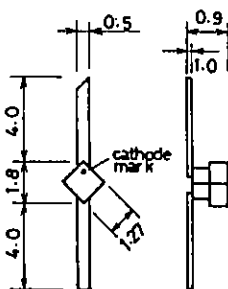
Electrical Characteristics at Ta = 25°C

			SPD-121	121M	221	121P	122P	unit
Reverse Voltage	V_R	$I_R = -10\mu A$	→	→	→	→	-4	V min
Forward Voltage	V_F	$I_F = 20mA$	0.9	0.9	1.0	0.9	0.9	V max
Total Capacitance	C_t	$V = 0V, f = 1MHz$	0.3	0.35	0.25	0.4	0.4	pF max
Series Resistance	R_s	$I_F = 20mA$	1.5	1.5	2.5	1.5	1.5	Ω
Conversion Loss	L_C	$f = 10.678GHz, P_{LO} = 10mW$	3.7	3.8	3.6	4.0	4.0	dB

Electrical Connection

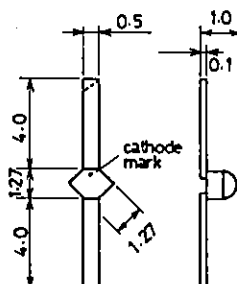


Package Dimensions 1218
(unit: mm)



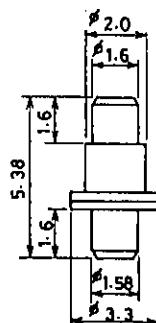
[SPD-121, 221]

Package Dimensions 1219
(unit: mm)



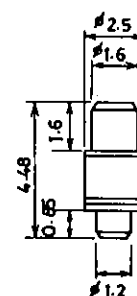
[SPD-121M]

Package Dimensions 1221
(unit: mm)



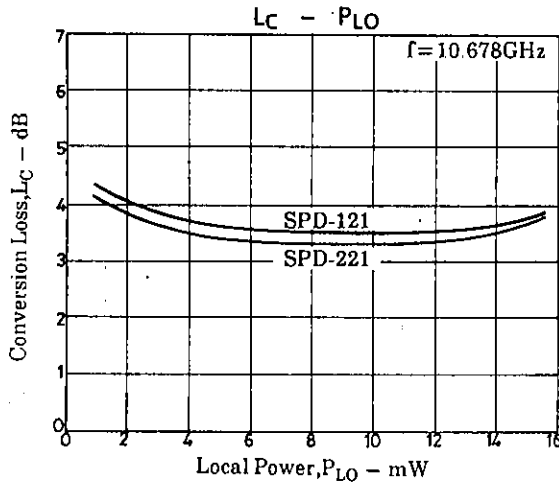
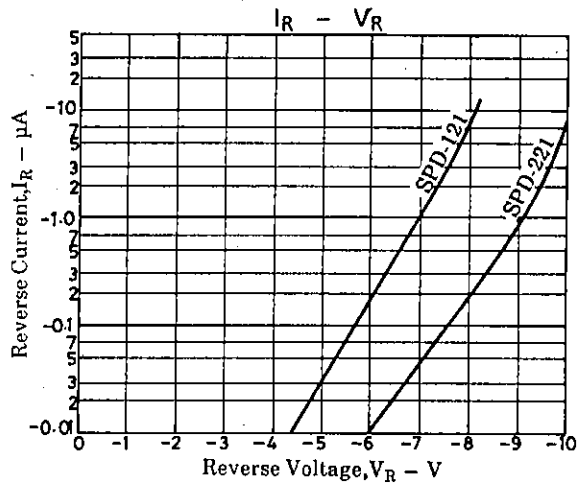
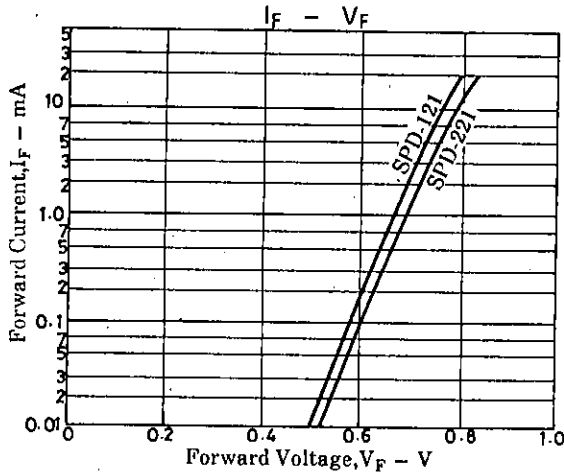
[SPD-121P]

Package Dimensions 1220
(unit: mm)



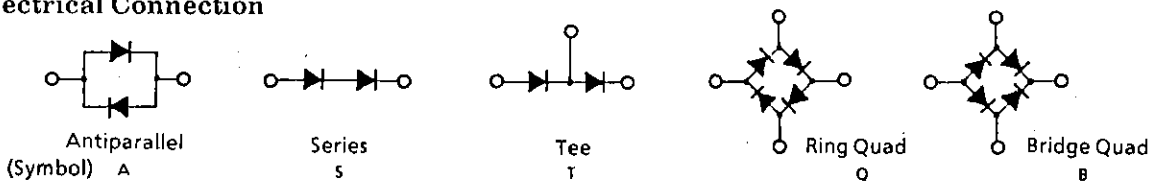
[SPD-122P]

SPD Series



Note : In addition to the single types shown above, the integrated types shown below are available.
For details, contact our sales offices.

Electrical Connection



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
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