

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	10 s	→	→	→	→	230	°C

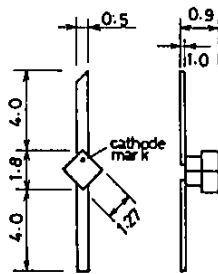
Electrical Characteristics at Ta = 25°C

			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

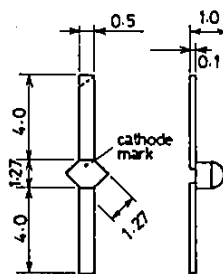


Package Dimensions 1218
(unit: mm)



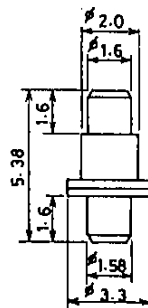
[SPD-121, 221]

Package Dimensions 1219
(unit: mm)



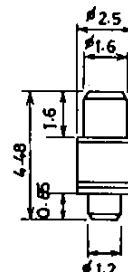
[SPD-121M]

Package Dimensions 1221
(unit: mm)



[SPD-121P]

Package Dimensions 1220
(unit: mm)

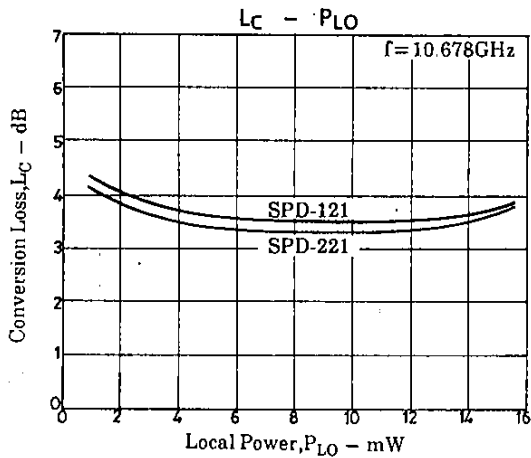
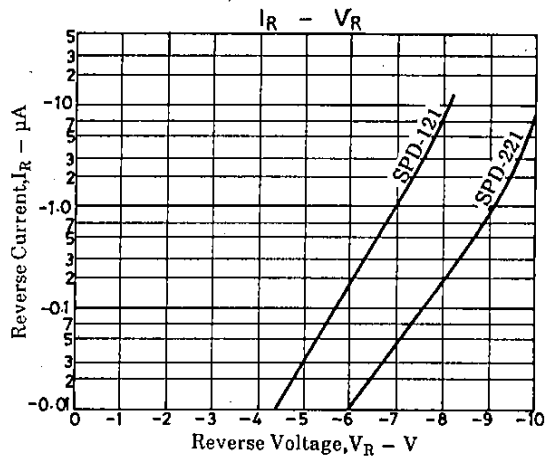
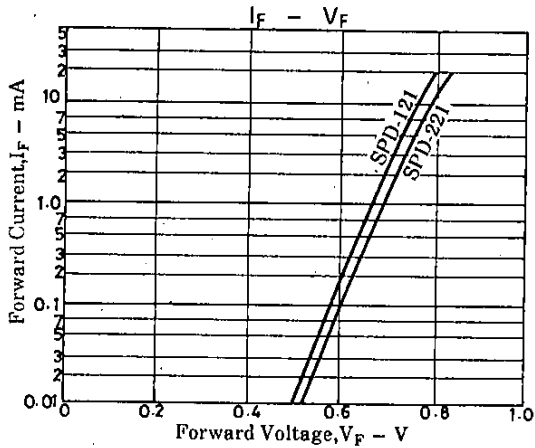


[SPD-122P]

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

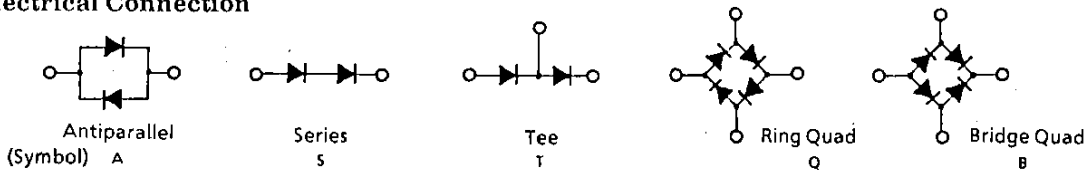
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SPD Series



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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 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
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