ND102

Antenna Switching Diode

Features

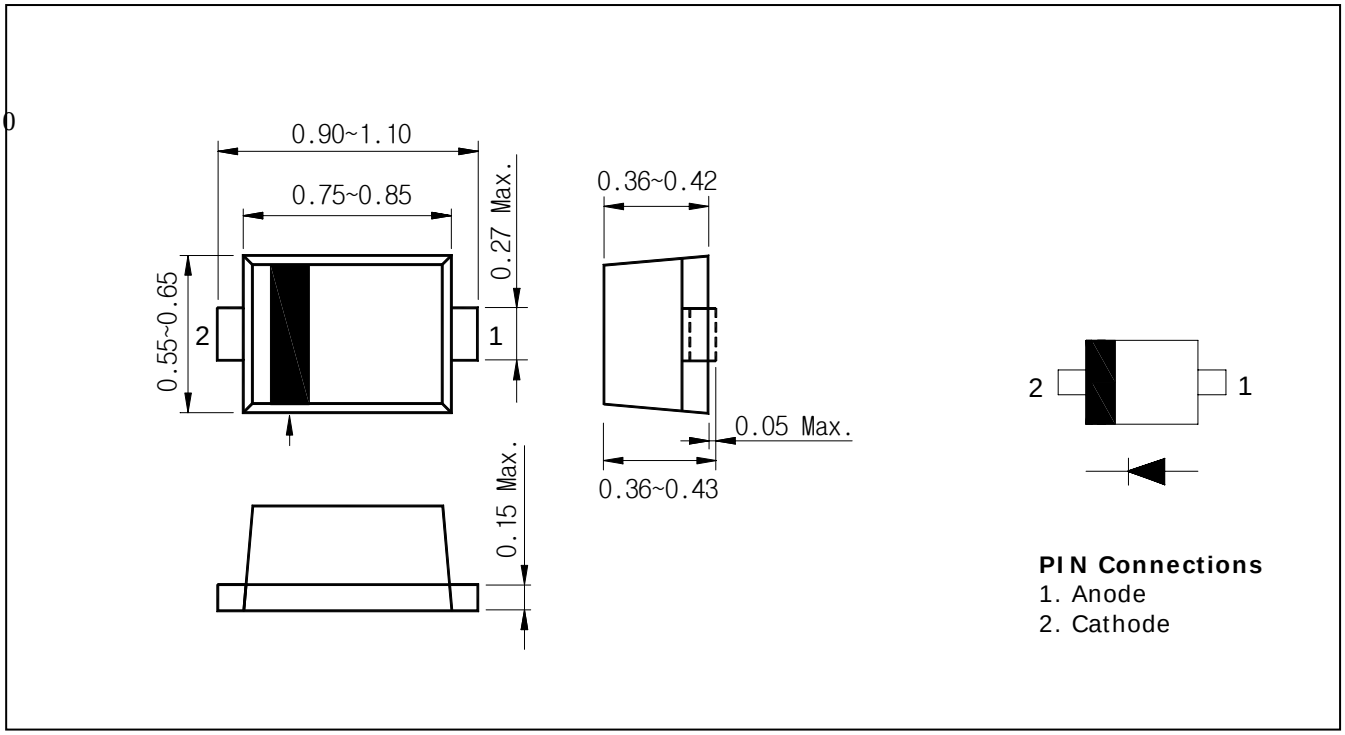
- Low capacitance : Max.0.4pF
- Low series resistance : rs= 1.0Ω(Typ.)@I_F=10mA
- UHF/VHF Band RF Switch Applications

Ordering Information

Type No.	Marking	Package Code
ND102	S	SOD-923

Outline Dimensions

unit : mm



Absolute Maximum Ratings

(Ta=25°C)

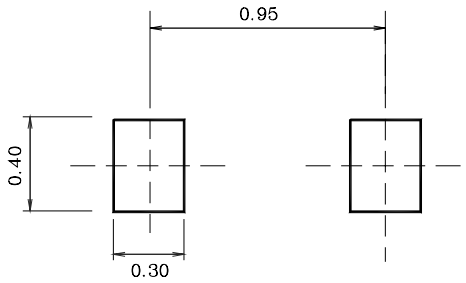
Characteristic	Symbol	Rating	Unit
Continuous reverse voltage	V_R	30	V
Forward current	I_F	50	mA
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse voltage	V_R	I_R= 10μA	30	-	-	V
Reverse current	I_R	V_R= 30V	-	-	0.1	μA
Forward voltage	V_F	I_F= 50mA	-	0.9	-	V
Total capacitance	C_T	V_R= 1V, f= 1MHz	-	0.3	0.4	pF
Series resistance	r_S	I_F= 10mA, f= 100MHz	-	1.1	1.5	Ω
Insertion Loss	$\|S_{21}\|^2$	I_F= 1mA, f = 1.8GHz	-	-0.23	-	dB
		I_F= 5mA, f = 1.8GHz	-	-0.1	-	dB
		I_F= 10mA, f = 1.8GHz	-	-0.08	-	dB
Isolation	$\|S_{12}\|^2$	V_R= 0V, f = 0.9GHz	-	-19	-	dB
		V_R= 0V, f = 1.8GHz	-	-14	-	dB
		V_R= 0V, f = 2.4GHz	-	-11	-	dB

※ Recommend PCB solder land (Unit : mm)



Electrical Characteristic Curves

Fig. 1 r_S - I_F

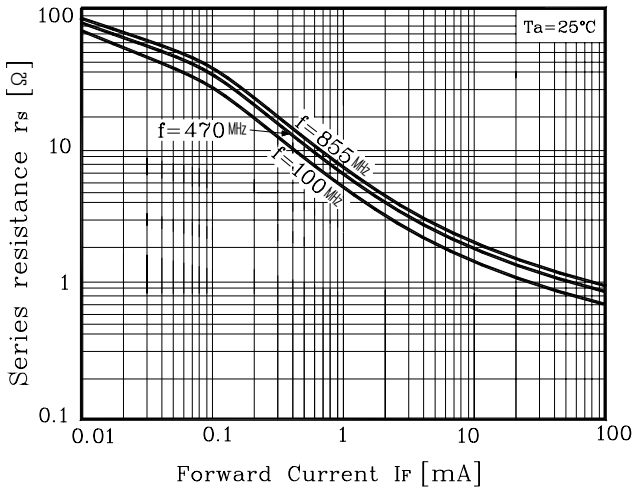


Fig. 2 C_T - V_R

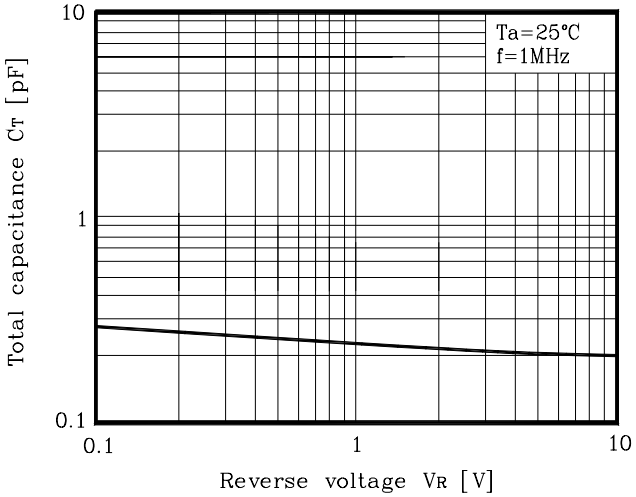


Fig. 3 I_F - V_F

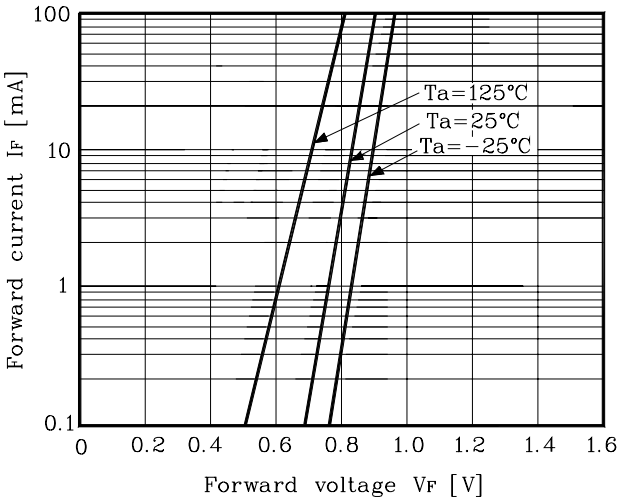


Fig. 4 Insertion Loss $|S_{21}|^2 = f(f)$

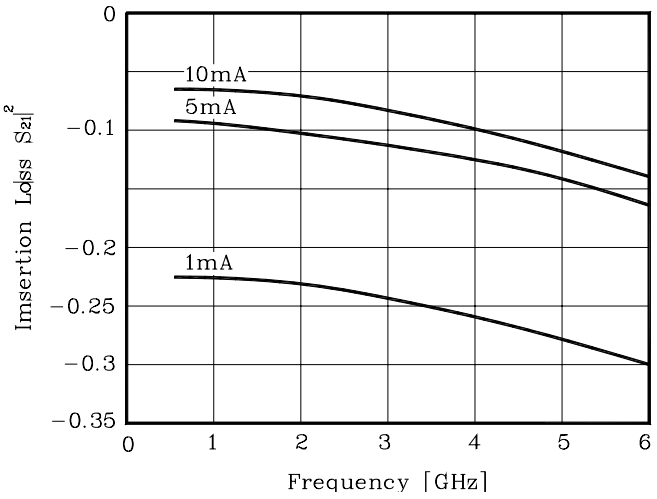
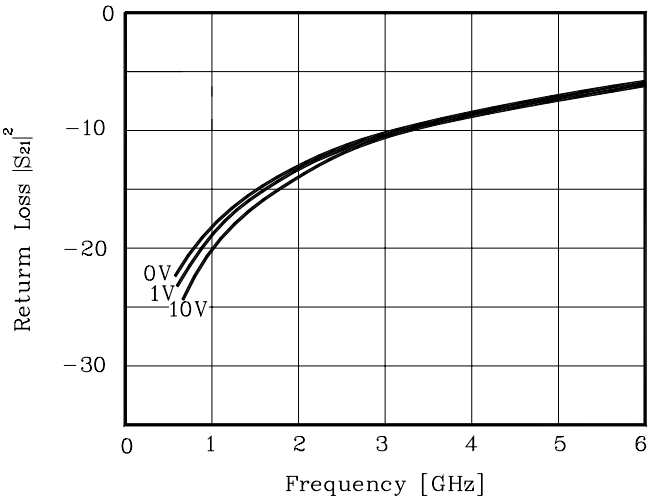


Fig. 5 Isolation $|S_{12}|^2 = f(f)$



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