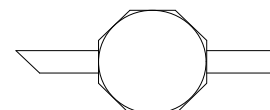# HIGH FREQUENCY VARACTOR DIODE

■GENERAL DESCRIPTION

NJX1542 is a GaAs varactor diode with very low toal capacitance. It is suited for VCO or detector up to SHF band.

It features low total capacitance and high capacitance ratio.

That adopts the SMD ceramic package.

NJX1542

■FEATURE

- ●High Total Capacitance Ratio   3.5 typ.
- ●S~Ku Band Tuning/Irregularity
- ●Very Small SMD Package
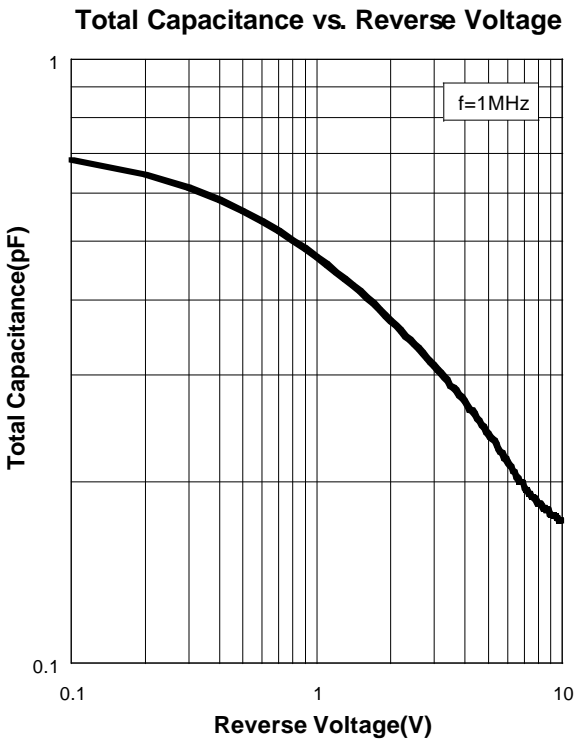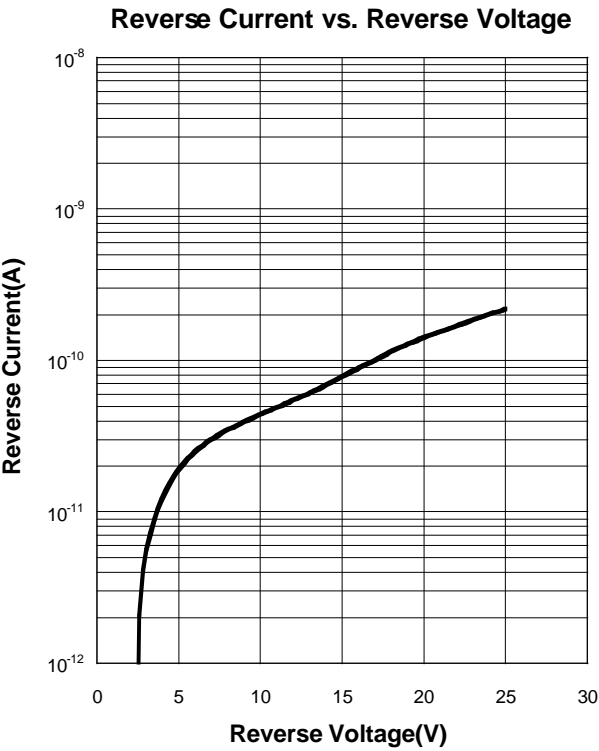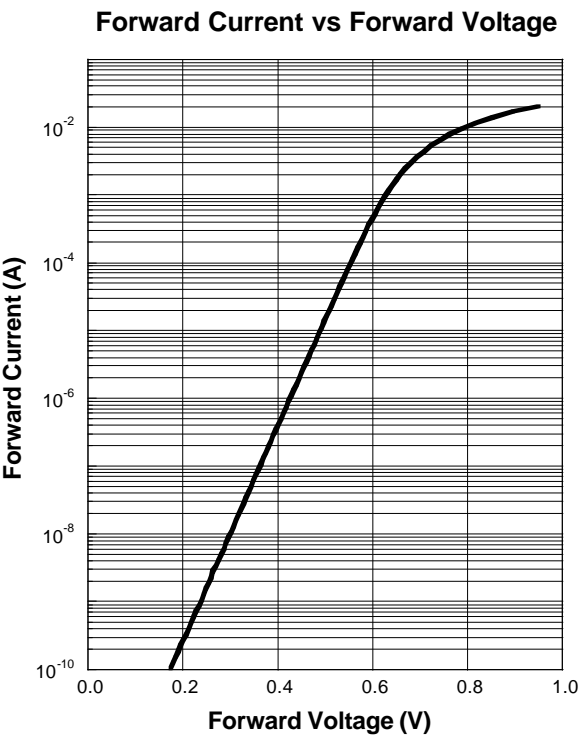
■ABSOLUTE MAXIMUM RATINGS

$(T_a=25°C)$

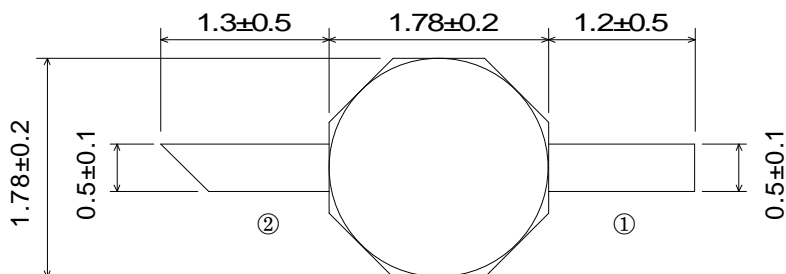| PARAMETER	SYMBOL	RATINGS	UNITS
Reverse Voltage	V_R	40	V
Forward Current	I_F	10	mA
Operating Temperature	T_{OP}	-50~+125	°C
Storage Temperature	T_{STG}	-50~+150	°C

■ELECTRICAL CHARACTERISTIC

$(T_a=25°C)$

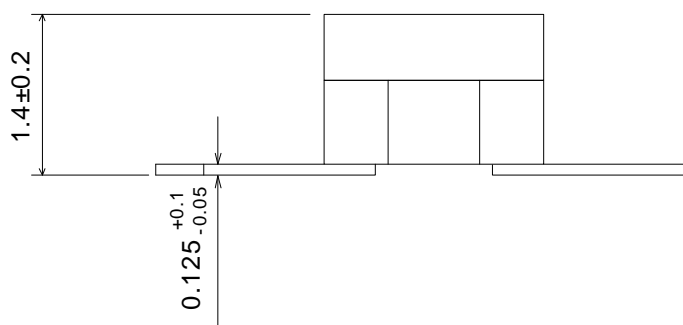| PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage	V_R	I_R=10uA	40	-	-	V
Reverse Current	I_R	V_R=20V	-	-	1.0	uA
Total Capacitance 0	C_{t0}	V_R=0V, f=1MHz	0.60	0.75	-	pF
Total Capacitance 10	C_{t10}	V_R=10V, f=1MHz	-	0.2	0.24	pF
Total Capacitance Ratio	C_{t0}/C_{t10}	V_R=0V, V_R=10V ,f=1MHz	-	3.5	-	-

NJX1542

■TYPICAL CHARACTERISTICS

Forward Current vs Forward Voltage

Reverse Current vs. Reverse Voltage

Total Capacitance vs. Reverse Voltage

■**PACKAGE OUTLINE**

1.3±0.5 1.78±0.2 1.2±0.5

1.78±0.2

0.5±0.1

0.5±0.1

② ①

① ANODE

② CATHODE

1.4±0.2

0.125 $^{+0.1}_{-0.05}$

(Unit: mm)

Cautions on using this product
  This product contains Gallium-Arsenide (GaAs) which is a harmful material.
  • Do NOT eat or put into mouth.
  • Do NOT dispose in fire or break up this product.
  • Do NOT chemically make gas or powder with this product.
  • To waste this product, please obey the relating law of your country.

This product may be damaged with electric static discharge (ESD) or spike voltage. Please handle with care to avoid these damages.

[CAUTION]
  The specifications on this databook are only given for information , without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.