

2.5 x 2.0mm CMOS TIGHT STABILITY SMD OSCILLATOR Pb-Free & RoHS compliant

N22D

FREQUENCY STABILITY

N22D4P1R•N22D4W1R	±20ppm/-40~+85°C
N22D5P1R•N22D5W1R	±15ppm/-40~+85°C
N22D6P1R•N22D6W1R	±10ppm/-40~+85°C
N22D7P1R•N22D7W1R	±5ppm/-40~+85°C

OPERATING CONDITIONS

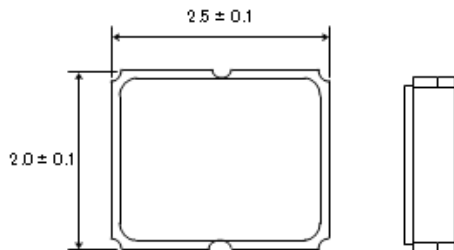
Operating Temperature	-40~+85°C
Storage Temperature	-55~+125°C
Supply Voltage	N22DW: +1.8V±5% N22DP: +3.3V±5%

ELECTRICAL CHARACTERISTICS (Ta=25°C, Vdd=1.8V or 3.3V, CL=15pF)

PARAMETERS	CONDITIONS	SPECIFICATIONS
Frequency Range (MHz)		10.000~160.000
Input Current (I _{dd})	10.000~80.000MHz 80.000+~160.000MHz	11mA Max. 20mA Max.
Frequency Stability	All conditions (Note)	±5ppm~±20ppm
Symmetry	@50%V _{dd}	45/55%
Output Voltage (V _{ol})	"0" Level	10%V _{dd} Max.
Output Voltage (V _{oh})	"1" Level	90%V _{dd} Min.
Rise Time (T _r)	(10% to 90%V _{dd}) 10.000~40.000MHz 40.000+~160.000MHz	6.0ns Max. 3.0ns Max.
Fall Time (T _f)	(90% to 10%V _{dd}) 10.000~40.000MHz 40.000+~160.000MHz	6.0ns Max. 3.0ns Max.
Output Load	HCMOS	15pF Max.
Start-up Time	0.0V to V _{dd}	5ms Max.

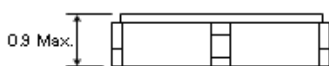
Note: Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change and 1st year aging.
(As for +5ppm, it is including +25°C tolerance and operating temperature range only.)

DIMENSIONS (mm)



ENABLE/DISABLE FUNCTION	
Control (Pin #1)	OUTPUT (Pin #3)
Open	Active
"1" (V _{IH} ≥ 70%V _{DD})	Active
"0" (V _{IL} ≤ 30%V _{DD})	High Z

Pin Connections	
#1	E/D
#2	GND
#3	OUT
#4	V _{DD}



RECOMMENDED SOLDER PAD LAYOUT

