



XW Type Crystal

RoHS Compliant Standard

Actual Size



FEATURE

1. Typical 4.0 × 2.5 × 0.8 mm ultra thin ceramic package.
2. 12 mm width Tape & Reel package for automatic assembly.
3. Tight tolerance 10 ppm available.
4. Packing : Tape & Reel, 1000/2000/3000/5000 pcs per Reel.

ORDERING INFORMATION

Select option

X'tal	Package	Load Capacitance (pF)	Freq. Tol. @ 25°C (ppm)	Freq. Stability (ppm)	Temp. Range (°C)	Special Requirement	Oscillator Mode	Appearance	Lead Free	Dash	Freq. (MHz)
	4×2.5	A : 8 B : 9 C : 10 D : 12 F : 16 G : 18 H : 20 J : 32 S : Series	B : ± 10 P : ± 15 C : ± 20 D : ± 25 E : ± 30 G : ± 50 H : ± 100	A : ± 5 B : ± 10 P : ± 15 C : ± 20 D : ± 25 E : ± 30 G : ± 50 H : ± 100	I : -10~+60 C : -20~+70 L : -40~+85	B : Spurious D : DLD H : High C1 L : Low C1 N : No Special P : Pullability Q : Q Value S : Several M : Mask	A : AT Fundamental	N : Normal	F : RoHS Compliant		XX.XXXXX

X W

Example XWBBINANF-13.000000

X'TAL W-TYPE; CL: 9pF; Freq. Tolerance: ±10ppm; Freq. Stability: ±10ppm; Temp. Range: -10°C to +60°C ; No Special Requirement; AT Fundamental; Normal Appearance; RoHS Compliant; Freq. 13.000000MHz.

* Not all combinations of options are available.

ELECTRICAL SPECIFICATION

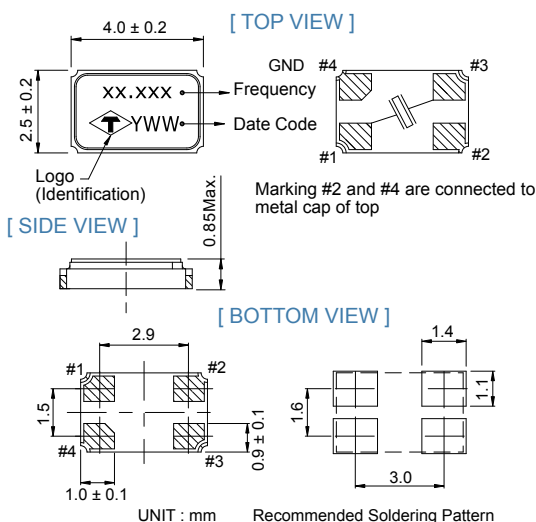
Storage Temp. Range	-55°C~125°C
Drive Level	10 μW typical, 100 μW Max.
Shunt Capacitance (Co)	3.0 pF Max.
Insulation Resistance	500MΩMin. @ DC 100V
Aging	±1.0ppm/year

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

EQUIVALENT SERIES RESISTANCE(ESR)

TYPE FREQUENCY	MODE	E.S.R
12MHz ≤ Freq < 16MHz	A1	≤70Ω
16MHz ≤ Freq < 32MHz	A1	≤50Ω
32MHz ≤ Freq ≤ 36.864MHz	A1	≤20Ω

OUTLINE DRAWING



FREQ. STABILITY vs. TEMP. RANGE

Temp (°C)	ppm	A: ±5	B: ±10	P: ±15	C: ±20
I	-10~+60	△	○	○	○
C	-20~+70	×	○	○	○
L	-40~+85	×	×	△	○

○:Standard △:Available (case by case) ×:Not available

MARK

- 1 XX.XXX = FREQUENCY (MHz)
 YWW
 Y = LAST DIGIT OF YEAR
 WW = WEEK NO.
- 2 MARK BY CUSTOMER
 Max. LINE 2 LINES
 Max. CODE OF LINE 6 CODES