



# XD Type Tuning Fork Crystal

RoHS Compliant Standard



## FEATURE

1. Tuning fork crystal with ceramic package type.
2. High-density SMD type.
3. Ultra-light weight with ultra-miniature packaging.
4. High-stability assured with tight vacuum sealing.
5. Most appropriate for portable devices and mobile telecommunications devices.
6. Packing: Tape & Reel 3000pcs/reel.

## ORDERING INFORMATION

Select option

X'tal	D-type	Load Capacitance (pF)	Freq. Tol. @ 25°C (ppm)	Freq. Stability (ppm)	Temp. Range (°C)	Special Requirement	Oscillator Mode	Appearance	Lead Free	Dash	Freq. (MHz)
		B : 9 M : 12.5	C : ± 20	H : ± 100 Z : over ± 150	C : -20 ~ +70 L : -40 ~ +85	N : No	D : Tuning Fork	C : 4.1 × 1.5 D : 3.2 × 1.5	F:RoHS Compliant		0.032768

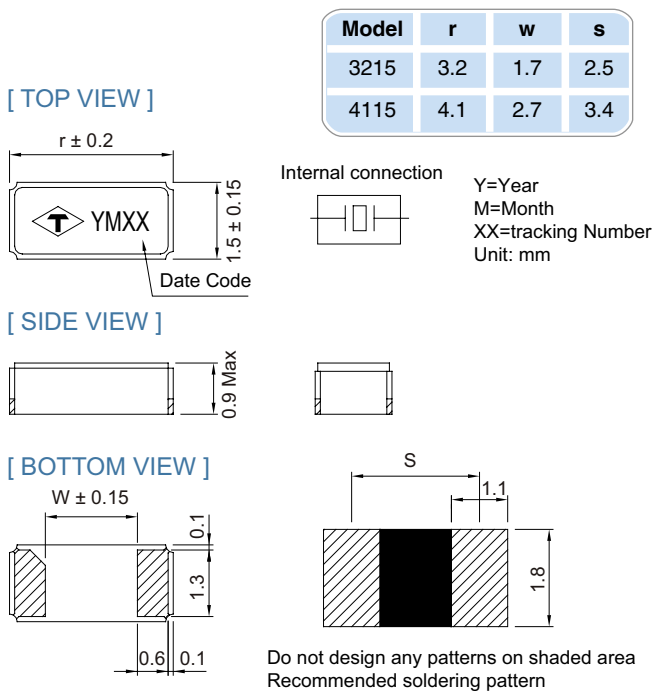
<b>X</b>	<b>D</b>									-	
----------	----------	--	--	--	--	--	--	--	--	---	--

Example : XDMCHCNDFF-0.032768

X'tal; CL:12.5pF; Frequency Tolerance: ±20ppm, Frequency Stability: ±100ppm; Temp. Range: -20°C to +70°C; No Special Requirement; Tuning Fork; 3.2x1.5mm; RoHS Compliant; Freq. 32.768KHz.

\* Not all combinations of options are available.

## OUTLINE DRAWING



## ELECTRICAL SPECIFICATION

Storage Temp. Range	TSTR	-55°C ~ +125°C
Turnover Temperature	TM	25°C ± 5°C
Temperature Coefficient	β	-0.04ppm/°C <sup>2</sup>
Frequency vs. Temperature	Δf/fM	βx(T - TM) <sup>2</sup> ppm
Series Resistance	R1	70KΩ Max.
Level of Drive	DL	0.1uW Typ, 0.5uW Max.
Aging (first year)	Δf/f0	±3ppm Max.
Quality Factor	Q	30000 Typ.
Shunt Capacitance	C0	1.4pF Typ.

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

## FREQ. STABILITY vs. TEMP. RANGE

Temp (°C)	ppm	H: ±100	Z: Over ±150
C	-20 ~ +70	○	○
L	-40 ~ +85	×	○

○:Standard    ×:Not available