

Tape & Reel 3Kpcs



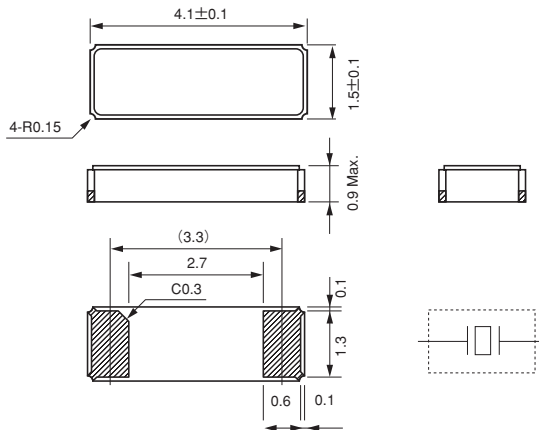
Tuning fork Crystal Unit



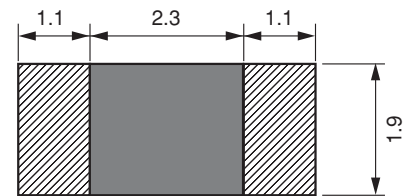
◆ **Features**

- Tuning fork crystal with ceramic packaged type.
High-density SMD type
- Light weight with small and thin packaging.
High-stability assured with tight vacuum sealing.
- Most appropriate for portable devices, automotive applications and mobile telecommunications devices.
- Complete Pb free product.

◆ **Dimensions (mm)**



◆ **Solder pad layout (mm)**



* Do not design any patterns on shaded area.

◆ **Standard Specifications**

Part Numbering system is in Page 17

Item	Model	MXC415	Conditions
Nominal Frequency	f ₀	32.768KHz	
Frequency Tolerance	Δf/f ₀	±20ppm	at 25°
Load capacitance	C	9.0pF, 12.5 pF	Need to specify your requirement
Operating Temperature Range	T _{OPR}	-40°C~+85°C	
Storage Temperature Range	T _{STR}	-55°C~+125°C	
Turnover Temperature	T _M	25°C±5°C	
Temperature Coefficient	β	-0.034±0.006ppm/°C ²	
Motional (series) resistance	R ₁	70K Ω Max.	at 25°C
Level of drive	DL	1 μ W Max.	
Aging (first year)	Δf/f ₀	±3ppm Max.	25°C±3°C
Quality Factor	Q	53000 Typ.	
Shunt capacitance	C ₀	1.10pF Typ.	

Ref 2009-02b - All specifications are subject to change without notice

MDX codification 32,768 KHz Crystals (Part Numbering System)

Case	Frequency code	Tolerance at 25°C (ppm)	Load capacitance	Packing Specification
MFS206 - 32	32	D	F	T
↓	↓	↓	↓	↓
<p>MFS206 MXC200T MXC206J MXC200S MXC519 MXC415 MXC315 MXC212</p>	<p>32,768 KHz</p>	<p>D = +/- 20 ppm F = +/- 15 ppm E = +/- 10 ppm H = +/- 5 ppm</p>	<p>A = Series B = 6.0pF C = 9.0pF (STD) D = 9.5pF E = 12.0pF F = 12.5pF (STD) G = 13.0pF Q = 10.0pF S = 11.0pF V = 8.0pF Y = 7.0pF Z = Others</p>	<p>T = Tape & Reel B = Bulk</p>