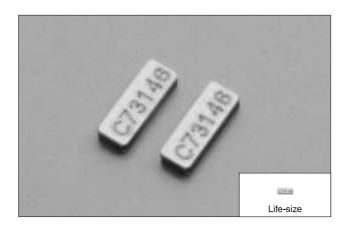


# TUNING FORK CRYSTAL UNIT (SMD · Ceramic Package)

**RoHS compliant / Pb free** 

**CM415** 

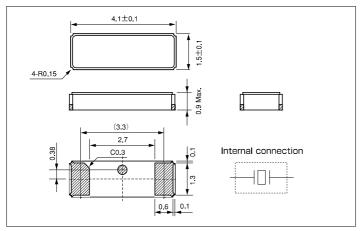
3000pcs/reel



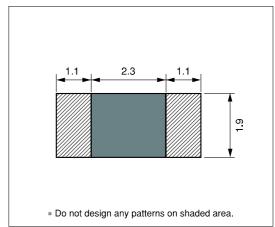
### **FEATURES**

- Tuning fork crystal with ceramic packaged type.
- High-density SMD type
  Ultra-light weight with ultra-miniature packaging.
  High-stability assured with tight vacuum sealing.
- Most appropriate for portable devices and mobile telecommunications devices.

### **■ DIMENSION [mm]**



# **■ SOLDER PAD LAYOUT [mm]**



# **STANDARD SPECIFICATIONS**

Item	Model	CM415	Conditions
Nominal Frequency	fo	32.768kHz	
Frequency Tolerance	△ f/fo	±20ppm	at 25°C
Load capacitance	CL	9.0pF, 12.5pF	Need to specify your requirement
Operating Temperature Range	Topr	-40°C∼+85°C	
Storage Temperature Range	Tstr	−55°C∼+125°C	
Turnover Temperature	Тм	25℃±5℃	
Temperature Coefficient	β	−0.034±0.006ppm/°C²	
Motional (series) resistance	R <sub>1</sub>	70K Ω Max.	at 25°C
Level of drive	DL	1 μW Max.	
Aging (first year)	△ f/fo	±3ppm Max.	25℃±3℃
Shunt capacitance	C <sub>0</sub>	1.10pF Typ.	