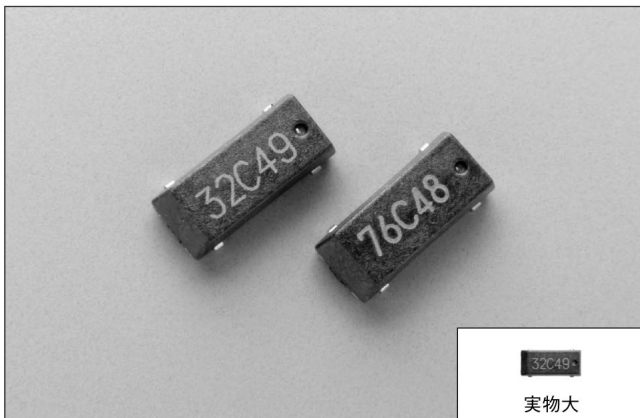


# TUNING FORK CRYSTAL UNITS (SMD • Plastic Package)

RoHS Compliant Optional

## CM200S • CM250S

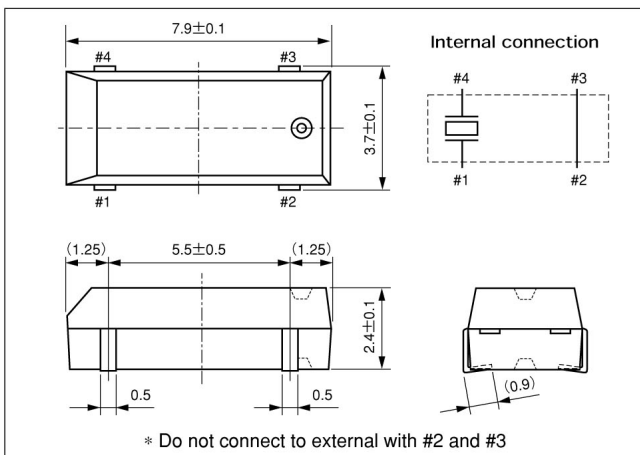
3000pcs/reel



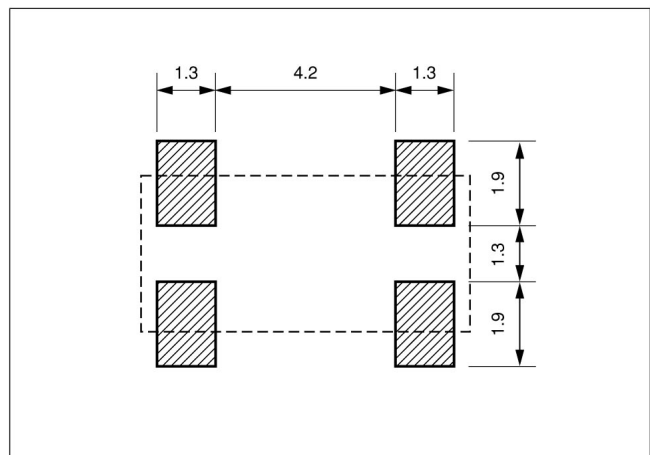
### FEATURES

- Embedded with heat resistant cylinder type crystal bring highly stable characteristics.
- Automatic mounting and reflowable Type.
- Most appropriate for clock source for portable and automotive equipment with low power consumption.

### DIMENSION [mm]



### SOLDER PAD LAYOUT [mm]



### STANDARD SPECIFICATIONS

Item	Model	CM200S	CM250S	Conditions
Nominal Frequency	f <sub>0</sub>	32.768kHz	30kHz~100kHz	Need to contact us for the available frequency in CM250S
Frequency Tolerance	Δf/f <sub>0</sub>	±20ppm	±30ppm	at 25°C
Load capacitance	C <sub>L</sub>	12.5pF		Need to specify your requirement
Operating Temperature Range	T <sub>OPR</sub>	-40°C~+85°C		
Storage Temperature Range	T <sub>STR</sub>	-55°C~+125°C		
Turnover Temperature	T <sub>M</sub>	25°C±5°C		See figure 2 in P4
Temperature Coefficient	β	-0.034±0.006ppm/°C <sup>2</sup>		
Motional (series) resistance	R <sub>1</sub>	50KΩ Max.		at 25°C
Level of drive	D <sub>L</sub>	1 μW Max.		
Aging (first year)	Δf/f <sub>0</sub>	±3ppm Max.	±5ppm Max.	25°C±3°C
Quality Factor	Q	70000 Typ.	70000 ~ 100000 Typ.	Depend on frequency
Shunt capacitance	C <sub>0</sub>	1.35pF Typ.	0.8pF ~ 1.7pF Typ.	Depend on frequency