



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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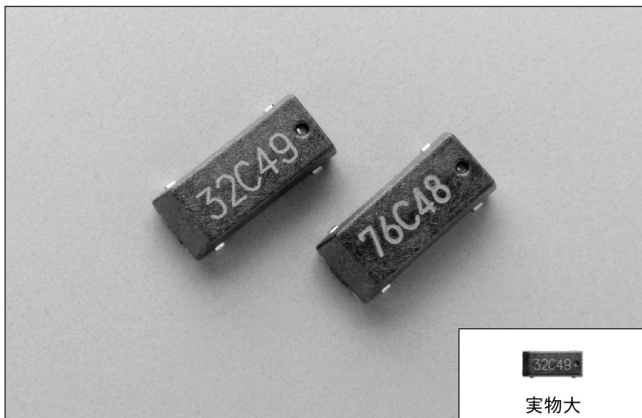


# TUNING FORK CRYSTAL UNITS (SMD • Plastic Package)

RoHS Compliant Optional

## CM200S • CM250S

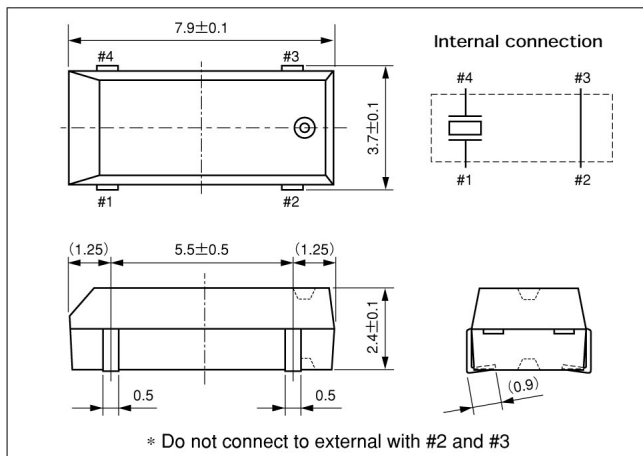
3000pcs/reel



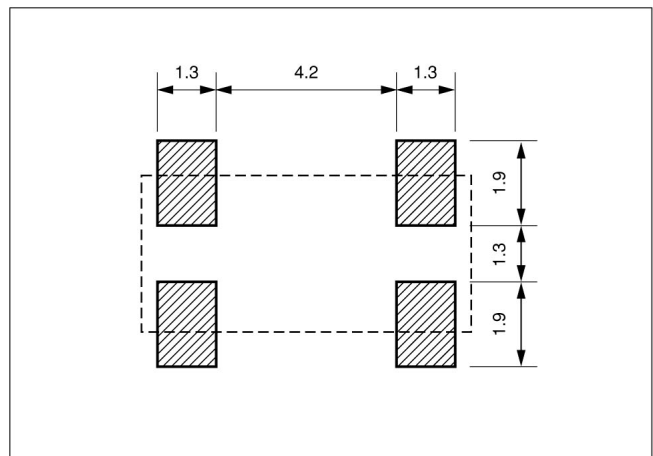
### FEATURES

- 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	$f_0$	32.768kHz	30kHz~100kHz	Need to contact us for the available frequency in CM250S
Frequency Tolerance	$\Delta f/f_0$	$\pm 20\text{ppm}$	$\pm 30\text{ppm}$	at 25°C
Load capacitance	$C_L$	12.5pF		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 $\pm$ 5°C		See figure 2 in P4
Temperature Coefficient	$\beta$	$-0.034 \pm 0.006\text{ppm}/^\circ\text{C}^2$		
Motional (series) resistance	$R_1$	50KΩ Max.		at 25°C
Level of drive	$D_L$	1 μW Max.		
Aging (first year)	$\Delta f/f_0$	$\pm 3\text{ppm Max.}$	$\pm 5\text{ppm Max.}$	25°C $\pm$ 3°C
Quality Factor	$Q$	70000 Typ.	70000 ~ 100000 Typ.	Depend on frequency
Shunt capacitance	$C_0$	1.35pF Typ.	0.8pF ~ 1.7pF Typ.	Depend on frequency