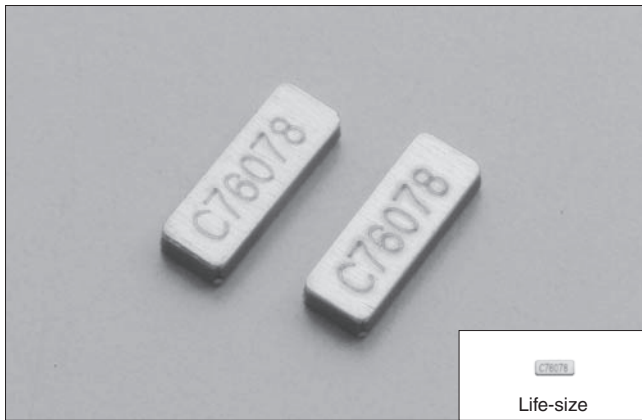


TUNING FORK CRYSTAL UNIT (SMD • Ceramic Package)

CM519

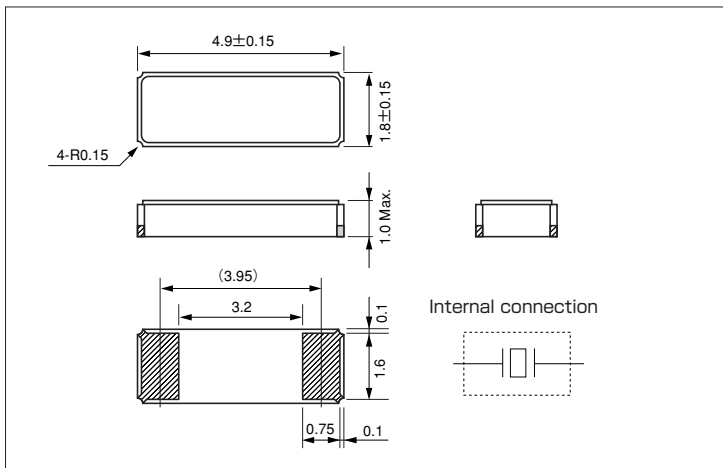
3000pcs/reel



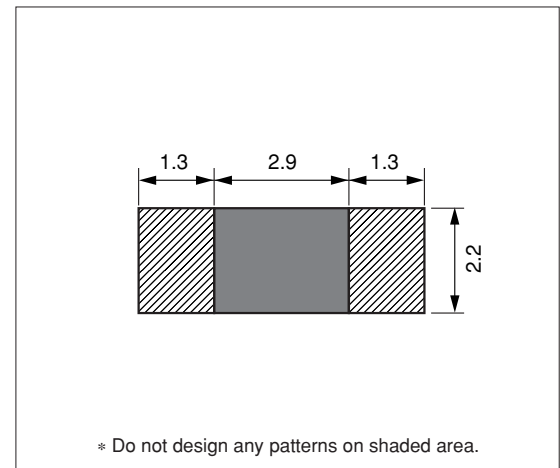
FEATURES

- Tuning fork crystal with ceramic packaged type.
- Small & thin packaging and light weight.
- Most appropriate for portable devices and mobile telecommunications devices.
- Complete Pb free product.

DIMENSION [mm]



SOLDER PAD LAYOUT [mm]



STANDARD SPECIFICATIONS

Item	Model	CM519	Conditions
Nominal Frequency	f_0	32.768kHz	
Frequency Tolerance	$\Delta f/f_0$	$\pm 20\text{ppm}$	at 25°C
Load capacitance	C_L	9.0pF, 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	β	$-0.034 \pm 0.006\text{ppm}/^\circ\text{C}^2$	
Motional (series) resistance	R_1	70K Ω Max.	at 25°C
Level of drive	D_L	1 μW Max.	
Aging (first year)	$\Delta f/f_0$	$\pm 3\text{ppm}$ Max.	25°C \pm 3°C
Quality Factor	Q	57000 Typ.	
Shunt capacitance	C_0	1.35pF Typ.	