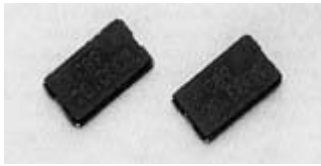


# CS10

(2,000pcs/reel)



## ■ FEATURES:

- Being of the small and slim size SMD type and featuring high efficiency in mounting, the CS 10 is ideal for application to high-density circuit boards.
- Excellent environmental and heat-resisting characteristics have been gained, due to the use of the highly reliable ceramic package.
- Enables automatic mounting, due to the adoption of the emboss taping packaging.

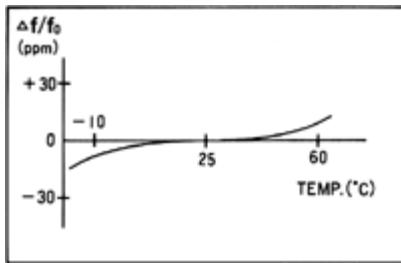
## ■ APPLICATIONS:

- Can be used for a wide range of applications including use in communication equipment, AV equipment, OA equipment and measuring instruments as well as high density, cellular phone designs.

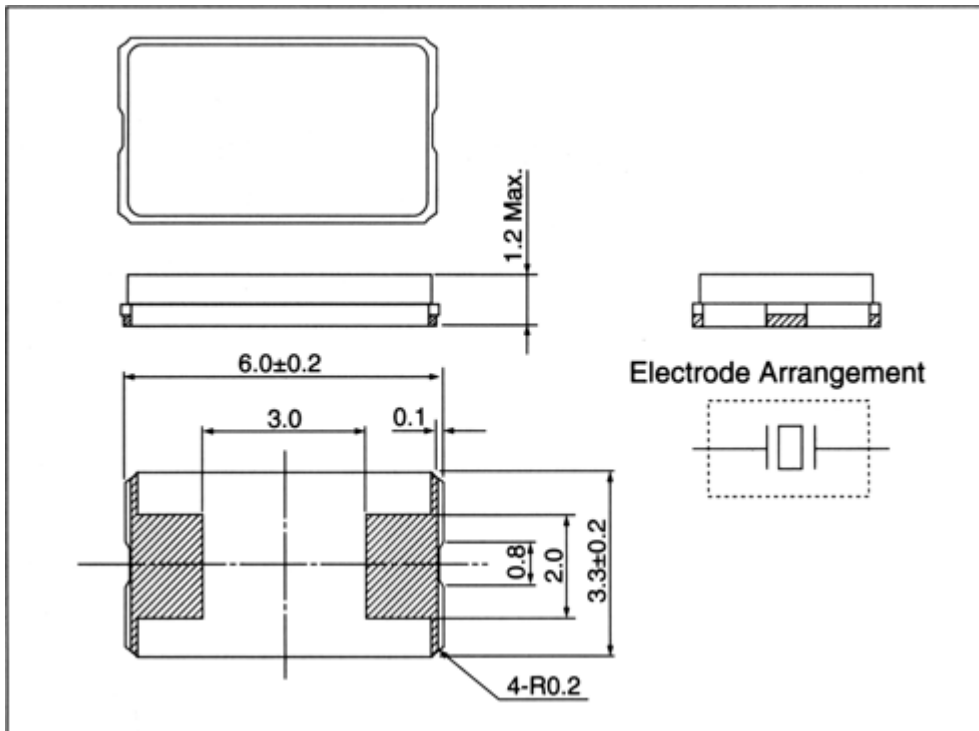
## ■ STANDARD SPECIFICATIONS

Item		CS10	Conditions
Nominal frequency	$f_0$	12.5MHz to 50.0MHz (fundamental)	Please contact us for changes in frequency.
Frequency tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$ or $\pm 50\text{ppm}$	Reference temperature
Frequency vs. Temperature Characteristics	$\Delta f/f_0$	$\pm 50\text{ppm}$ or $(\pm 30\text{ppm})$	$-10^\circ\text{C}$ to $+60^\circ\text{C}$
Operating temperature range	$T_{\text{orp}}$	$-40^\circ\text{C}$ to $+85^\circ\text{C}$	
Storage temperature range	$T_{\text{stg}}$	$-55^\circ\text{C}$ to $+125^\circ\text{C}$	
Equivalent series resistance	$R_1$	50 ohm MAX.	
Load capacitance	$C_L$	16pF TYP.	Please specify
Shunt capacitance	$C_0$	7.0pF MAX.	
Drive level	DL	50 $\mu\text{W}$	
Insulation resistance	IR	500M ohm MIN.	DC 100 $\pm 15\text{V}$
Aging (First year)	$\Delta f/f_0$	$\pm 5\text{ppm}$ MAX.	$25^\circ\text{C} \pm 3^\circ\text{C}$
Sealing		$1 \times 10^{-2} \mu\text{Pa} \cdot \text{m}^3 / \text{s}$ MAX.	
Shock resistance		$\pm 5\text{ppm}$ MAX. Drop test of 3 times on a hard board from 75cm height or shock test of 3000G x 0.3ms x 1/2sin wave x 3 directions	Condition will vary depending on the frequency.

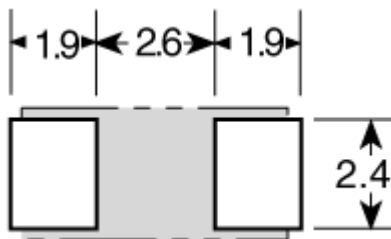
## ■ FREQUENCY vs TEMPERATURE CURVE



### ■ DIMENSIONS: (UNIT=mm)



### ■ RECOMENDED SOLDERING PATTERN: (UNIT=mm)



Back