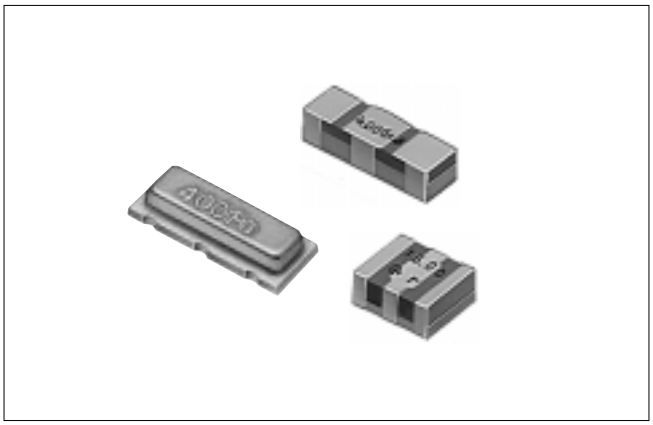
CERAMIC RESONATOR (CERALOCK®)

Chip Ceramic Resonator **CSTC/CSTCC/CSTCS** Series (CERALOCK®)

Chip CERALOCK® with built-in load capacitance in an extremely small package.

MURATA's package technology expertise has enabled the deveopment of the Chip CERALOCK® with built-in load capacitance.
High-density mounting can be realized because of the small package and the elimination of the need for an external load capacitor.



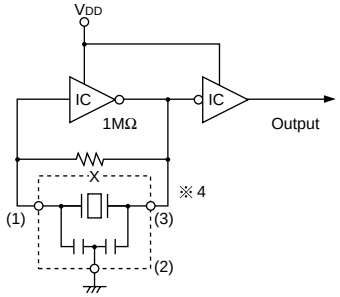
■FEATURES

1. Oscillation circuits do not require external load capacitors.
2. The series is available in a wide frequency range.
3. The resonators are extremely small and have a low profile.
4. No adjustment is necessary for oscillation circuits.

■APPLICATIONS

1. Clock oscillators for microprocessors.
2. Electronic control circuits for small electronic equipment such as hand held movie
3. Automotive electronics
4. Dual Tone Multi Frequency (DTMF) generator for cordless telephones

■SPECIFICATIONS

Item \ Type	CSTC Series	CSTCC Series	CSTCS Series	
	CSTC□MG	CSTCC□MG	CSTCS□MT	CSTCS□MX040
Frequency Range	2.00−3.5MHz	3.51−8.00MHz	8.01−13.0MHz	14.00−60.00MHz
Oscillation Frequency Initial Tolerance	±0.5%	±0.5%	±0.5%	±0.5%
Oscillation Frequency Temperature Stability※1	±0.3%	±0.3%	±0.4%	±0.3%
Aging※2	±0.3%	±0.3%	±0.3%	±0.3%
Oscillation Frequency Measuring Circuit				

IC :1/6CD4069UBE×2※3
V_{DD} :5V (MT Series:12V)
X :Chip CERALOCK®

※1 At −20 to +80˚C
※2 For 10 years at room temperature
※3 TC74HCU04 is used as the standard circuit for the MX040 series.
※4 If connected with incorrect orientation, the above specification may not be guaranteed.

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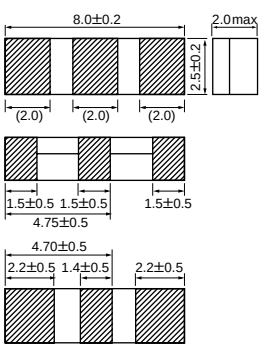
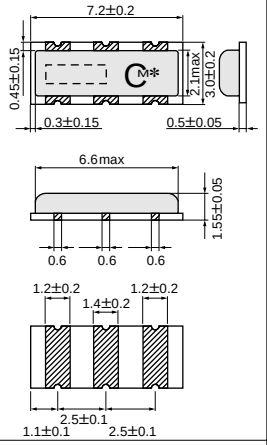
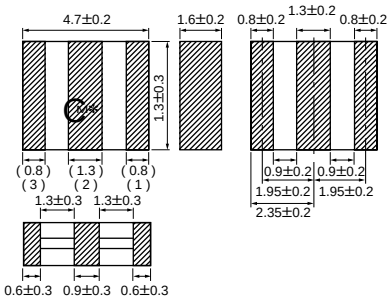
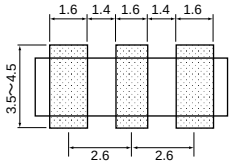
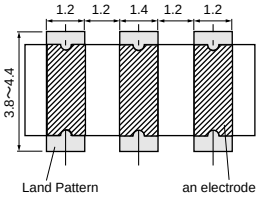
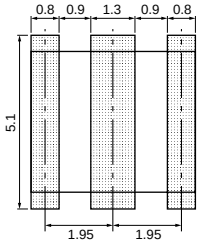
■DIMENSIONS/STANDARD LAND PATTERN (in mm tol.:±0.3mm)

Frequency	2.00—3.50MHz	3.51—8.00MHz	8.01—13.0MHz	14.00—60MHz
Type	CSTC□MG	CSTCC□MG	CSTCS□MT	CSTCS□MX040
Dimensions			 ※ Thickness varies with frequencies. ※ The electrode pattern varies with built-in load capacitance value.	
Standard Land Pattern				

■THE STABILITY OF OSCILLATION FREQUENCY WITH TEMPERATURE VARIATION