

# 1 Characteristics and Types of CERALOCK®

## MHz Band Chip CERALOCK® (CSACW/CSTCC/CSTCR/CSTCE/CSTCW Series)

The MHz band Chip CERALOCK® has a wide frequency range and small footprint to meet further down sizing and high-density mounting requirements.

The table shows the dimensions and two terminals standard land patterns of the CERALOCK® CSACW series.

The second table shows the dimensions and three terminals standard land patterns of CSTCC/CSTCR/CSTCE/CSTCW series chip resonator (built-in load capacitance type). And the carrier tape dimensions of CSTCR series are shown on the next page.

## ■Dimensions and Standard Land Pattern of Chip CERALOCK® (CSACW Series)

Part Number	Frequency (MHz)	Dimensions Standard Land Pattern (in mm)
CSACW □□X	20.01-70.00	

\*1 Thickness varies with frequency.

### ■Part Numbering

(Ex.) 

CS	T	CR	4M00	G	5	3		-R0
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1 2 3 4 5 6 7 8 9

- ① Product ID
- ② Frequency/No capacitance built-in  
A : No Capacitance Built-in, T : Built-in Capacitance
- ③ Structure/Size  
CC/CR/CE : Cap Chip Type, CW : Monolithic Chip Type
- ④ Nominal Center Frequency
- ⑤ Type  
G : Thickness Shear Vibration,  
V : Thickness Longitudinal Vibration,  
X : Thickness Longitudinal Vibration (3rd overtone)
- ⑥ Frequency Tolerance  
1 : ±0.1%, 2 : ±0.2%, 3 : ±0.3%, 5 : ±0.5%, Z : Others
- ⑦ Load Capacitance Value  
(In case of CSACW, value is for external capacitance of standard circuit)  
1 : 5pF or 6pF, 2 : 10pF, 3 : 15pF, 5 : 33pF or 39pF,  
6 : 47pF
- ⑧ Individual Specification  
With standard products, "⑧ individual Specification" is omitted, and "⑨ Package Specification Code" is carried up.
- ⑨ Packaging  
-B0 : Bulk,  
-R0 : Plastic Taping φ180mm Reel Package

# Characteristics and Types of CERALOCK® 1

## ■Dimensions and Standard Land Pattern of Chip CERALOCK® (CSTCC/CSTCR/CSTCE/CSTCW Series)

Part Number	Frequency (MHz)	Dimensions Standard Land Pattern (in mm)
CSTCC □ G	2.00–3.99	
CSTCR □ G*2	4.00–7.99	
CSTCE □ G*2	8.00–12.50	
CSTCE □ V*2	12.51–20.00	
CSTCW □ X*2	20.01–70.00	

\*1 Thickness varies with frequency  
\*2 Conformal coating or washing of the components is not acceptable because they are not hermetically sealed.

## ■Dimensions of Carrier Tape for Chip CERALOCK®

