⚠Note • Please read rating and ⚠CAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.
• This catalog has only typical specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

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Ceramic Resonators (CERALOCK®)

⬤ MHz Chip Type –Standard Frequency Tolerance for Automotive

Chip type CERALOCK® with built-in load capacitors provides high accuracy in an extremely small package. MURATA's frequency adjustment and package technology expertise has enabled the development of the chip CERALOCK® with built-in load capacitors.
This diverse series owes its development to MURATA's original mass production techniques and high reliability, and has achieved importance in the worldwide automotive market.
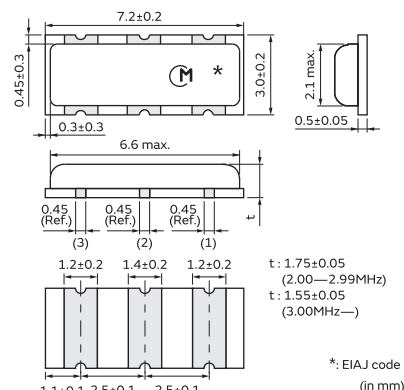
Features

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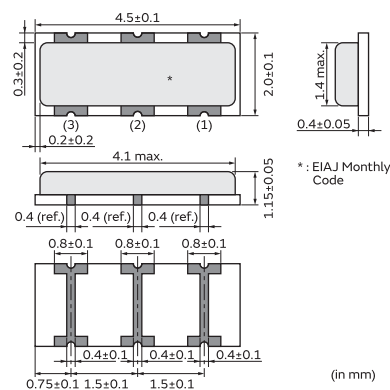
Applications

1. Cluster panel and Control panel
2. Safety control
   Anti-lock Brake System, Electronic Stability Control, Airbag, etc.
3. Engine ECU, Electronic Power Steering, Immobilizer, etc.
4. Car Air conditioner, Power Window, Remote Keyless Entry system, etc.
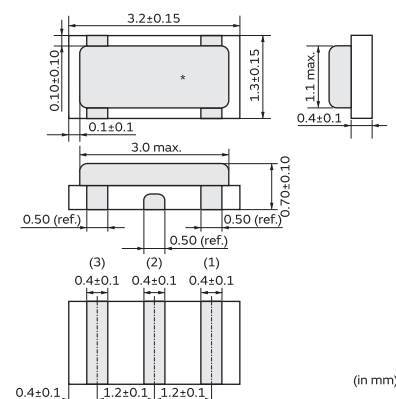5. Electronic Toll Collection system, Car Navigation, etc.
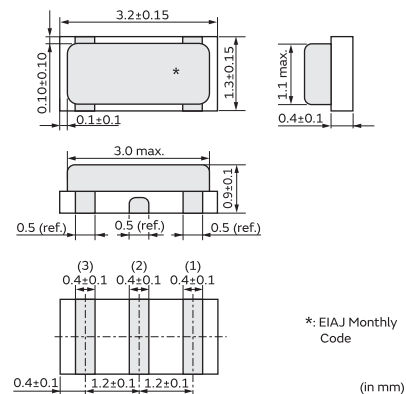
CSTCC_G_A
2.00-3.99MHz

CSTCR_G_B
4.00-7.99MHz

CSTCE_G_A
8.00-13.99MHz

CSTCE_V_C
14.00-20.00MHz

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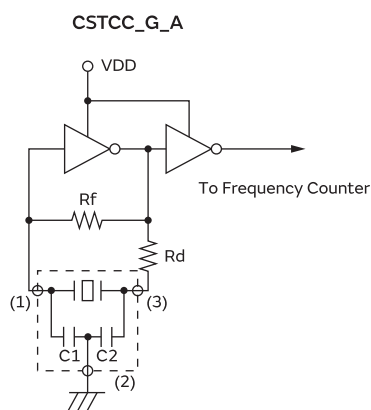
P16E.pdf
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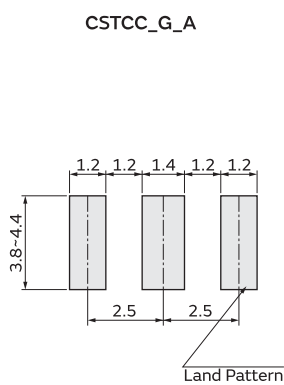| Part Number	Frequency (MHz)	Initial Frequency Tolerance (%)	Frequency Shift by Temperature (%)	Operating Temperature Range (°C)
CSTCC_G_A	2.00 to 3.99	±0.5	±0.4 [-0.6% to +0.3%:Built-in Capacitance 47pF type within Freq.2.00 to 3.49MHz]	-40 to 125
CSTCR_G_B	4.00 to 7.99	±0.5	±0.15	-40 to 125
CSTCE_G_A	8.00 to 13.99	±0.5	±0.2	-40 to 125
CSTCE_V_C	14.00 to 20.00	±0.5	±0.15	-40 to 125

Irregular or stopped oscillation may occur under unmatched circuit conditions. Please check the actual conditions prior to use.
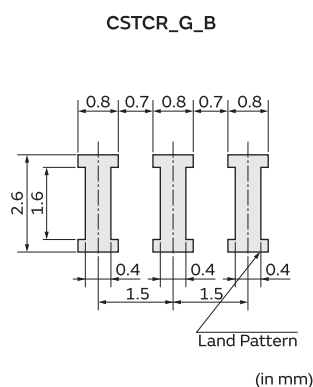
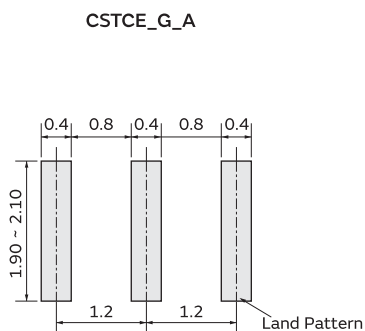## Measuring Circuit of Oscillating Frequency

CSTCC_G_A

CSTCE_G_A/CSTCE_V_C/CSTCR_G_B

Standard Land Pattern Dimensions

CSTCC_G_A

(in mm)

CSTCR_G_B

(in mm)

CSTCE_G_A

(in mm)

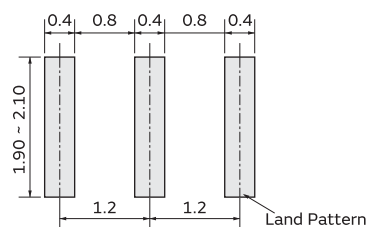### CSTCE_V_C
(* This Land Pattern is not common to CSTCE_V.)

(in mm)

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