muRata
Innovator in Electronics

CSAC, CSACV/CSACW Series

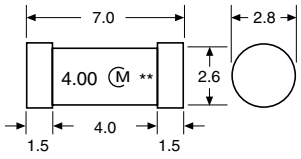
CSA series is being de-emphasized in favor of the CST series.

CSAC/CSACV/CSACW SERIES – 1.80 to 60.00MHz

SPECIFICATIONS	CSAC□MGC/MGCM-TC	CSACV□MTJ-TC20	CSACV□MXJ040-TC20	CSACW□MX-T
Frequency Range	1.80 to 6.00MHz	6.01 to 13.0MHz	13.50 to 20.00MHz	20.01 to 70.00
Standard Initial Frequency Tolerance	±0.5%	±0.5%	±0.5%	±0.5%
Storage Temperature Range	−40°C to +85°C			−55°C to +85°C
Temperature Tol. (−20°C to +80°C)	±0.3%	±0.5%	±0.3%	±0.2%
Withstand Voltage	50 VDC max.			100 VDC max.

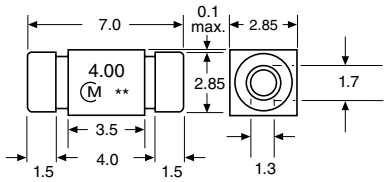
DIMENSIONS: mm

CSAC□MGC-TC



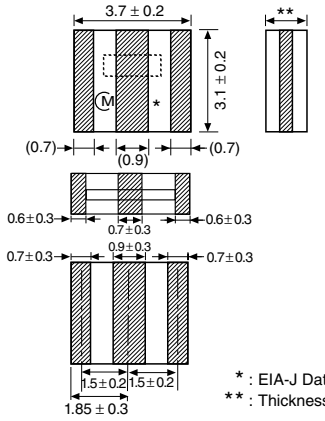
** : EIA-J Date Code

CSAC□MGCM-TC



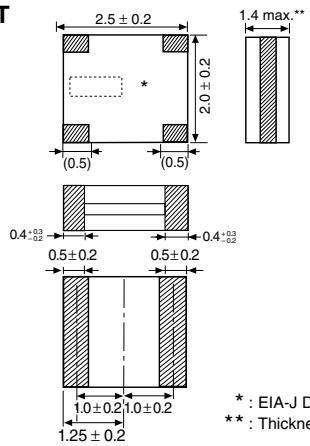
** : EIA-J Date Code

CSACV□MTJ/MXJ-TC20



* : EIA-J Date Code
** : Thickness varies by frequency

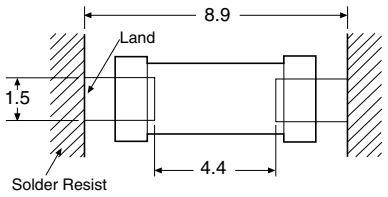
CSACW□MX-T



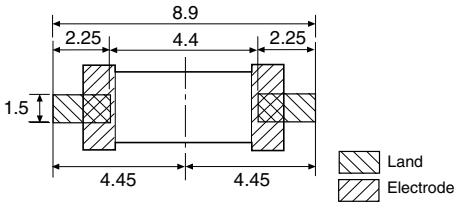
* : EIA-J Date Code
** : Thickness varies by frequency

LAND PATTERN: mm

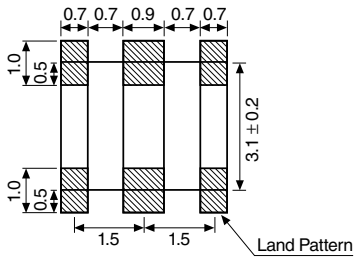
CSAC□MGC-TC



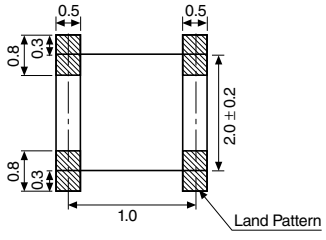
CSAC□MGCM-TC



CSACV□MTJ/MXJ-TC20

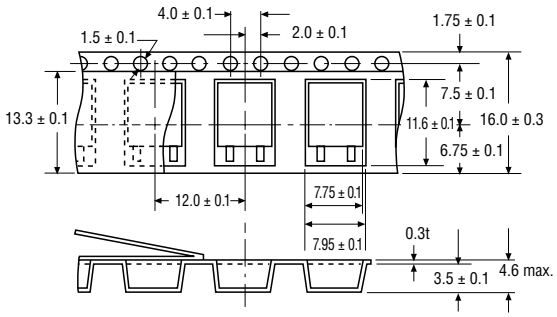


CSACW□MX-T

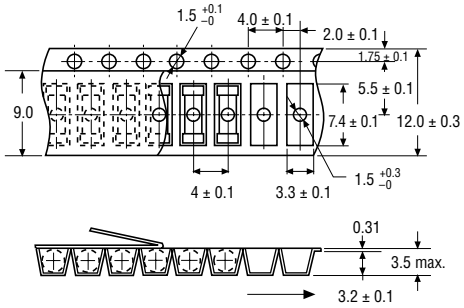


PLASTIC TAPE DIMENSIONS: mm

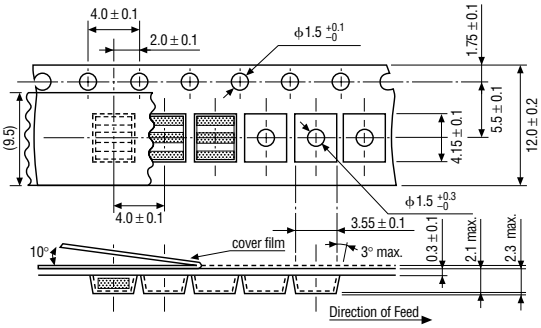
CSBF 430 – 519kHz



CSAC MGC/M



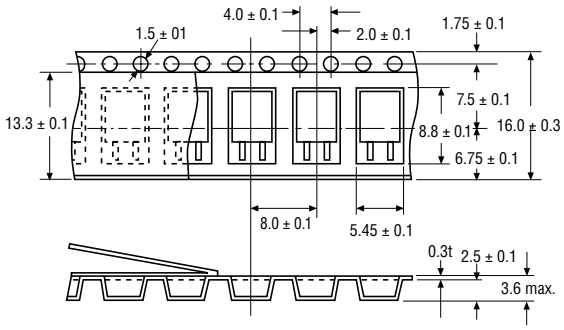
CSACV□MTJ/MXJ



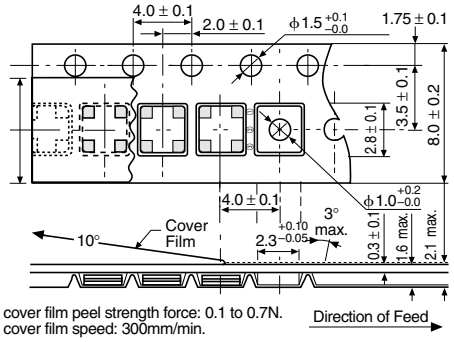
The cover
film peel strength force: 20 ~ 70gr.

The cover
film peel speed: 300mm/min.

CSBF 700 – 1250kHz



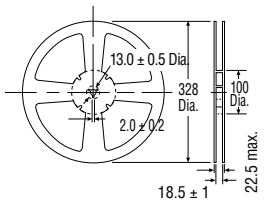
CSACW□MX-T



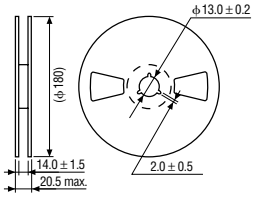
The cover film peel strength force: 0.1 to 0.7N.
The cover film speed: 300mm/min.

PLASTIC REEL DIMENSIONS: mm

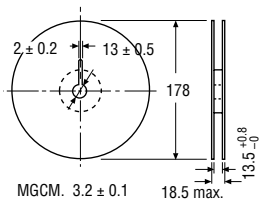
CSBF 328mm Dia.



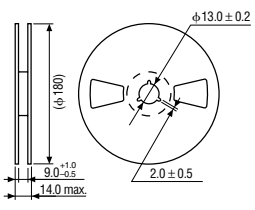
CSACV□MTJ/MXJ-TC20



CSAC MGC/M



CSACW□MX-T



CERAMIC RESONATORS
SURFACE MOUNT WITH BUILT-IN LOAD CAPACITORS
MECHANICAL CONSIDERATIONS CSTCC, CSTCV, CSTCW Series

PART NUMBERING SYSTEM

CSTCC 4.00 MG 1 00 – TC

SERIES	3 OR 4 DIGIT FREQUENCY	TYPE	INITIAL TOLERANCE Blank or 0 = ± 0.5% 1 = ± 0.3% 2 = ± 0.2% 8 = ± 1.0%	Denotes Sorting IC circuit and load cap value. Blank or 00 = CMOS 40 = HCMOS		TAPE CARRIER

CSTCW 2000 MX 0 3 001 – T

SERIES	4 DIGIT FREQUENCY	TYPE	TOLERANCE 0 = ± 0.5% std. 1 = ± 0.3% 2 = ± 0.2% 4 = ± 0.1% 8 = ± 1.0%	LOAD CAP VALUE 1 = 6pF 3 = 15pF	CUSTOM MARK (Optional)		TAPE CARRIER

SURFACE MOUNT RESONATORS WITH BUILT-IN LOAD CAPACITORS

NEW

Part Number (note 1)	CSTCC□.□□MG-TC	CSTCR□M□□G-RO	CSTCC□.□□MG-TC	CSTCV□□.□□MTJ-TC20	CSTCV□□.□□MXJ-TC20	CSTCW□□□□MX-T
Available Frequencies (note 2)	2.00 to 3.99MHz	4.00 to 7.99MHz	8.00 to 10.00MHz	10.01 to 13.49MHz	13.50 to 19.99MHz	20.00 to 70.00MHz
Std. Initial Tolerance	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Temperature Tol. –20°C TO +80°C	±0.3%	±0.2%	±0.3%	±0.4%	±0.3%	±0.3%
Aging Stability (for 10 yrs @ 25°C)	±0.3%	±0.1%	±0.3%	±0.3%	±0.3%	±0.3%
Standard Built-in Capacitance (note 3)	15pF ± 20% (blank)	15pF ± 20% (3)	15pF ± 20% (blank)	22pF ± 20% (C4)	22pF ± 20% 13.50 to 15.99MHz (H4) **CSTCV□□.□□MXJ0H4-TC20**	6pF ± 2pF (1) 25.00 to 70.00MHz **CSTCW□□□□MX01-T**
Example Part No.	**CSTCC□.□□MG-TC**	**CSTCR□M□□G03-RO**	**CSTCC□.□□MG-TC**	**CSTCV□□.□□MTJ0C4-TC20**	22pF ± 20% 16.00 to 17.99MHz (C4) **CSTCV□□.□□MXJ0C4-TC20** 22pF ± 20% 18.00 to 19.99MHz (H4) **CSTCV□□.□□MXJ0H4-TC20**	15pF ± 20% (3) 20.00 to 24.99MHz **CSTCW□□□□MX03-T**

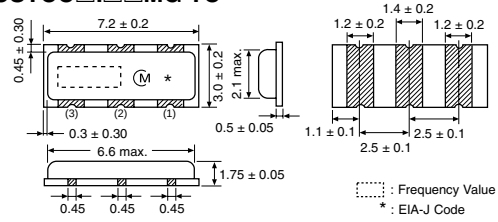
Note 1: For CSTCC□.□□MG, 2.00, 3.58, 3.68, 8.00, 8.19, 9.00, 10.0MHz are common values.
For CSTCR□M□□G, 4.00, 4.19, 4.91, 5.00, 6.00MHz are common values.
For CSTCV□□.□MTJ, 11.00, 11.059, 12.00MHz are common values
For CSTCV□□.□□MXJ, 13.50,14.72, 14.74, 16.00, 16.93, 20.00MHz are common values.
For CSTCW□□□□MX, 24.00, 27.00, 32.00, 33.86, 40.00, 50.00MHz are common values.
For other frequency values, please contact Murata Electronics.

Note 2: Load capacitance value and tolerance are reference value.

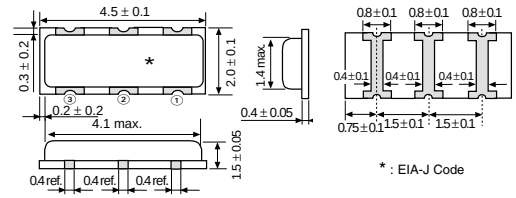
Note 3: Please contact Murata Electronics for proper selection of circuit values.

DIMENSIONS: mm

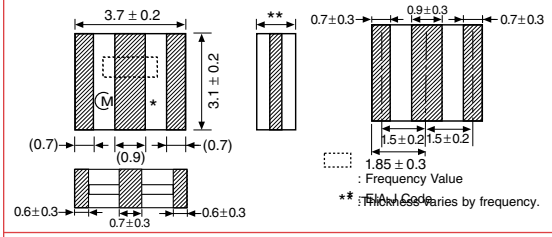
CSTCC□.□□MG-TC



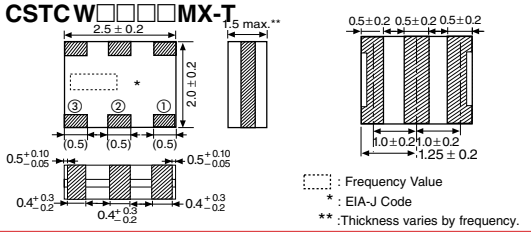
CSTCR□M□□G-RO



CSTCV□□.□□MTJ/MXJ-TC20

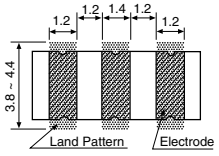


CSTCW□□□□MX-T

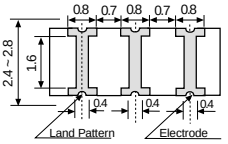


RECOMMENDABLE LAND PATTERN

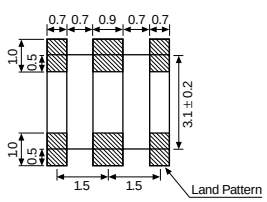
CSTCC□.□□MG-TC



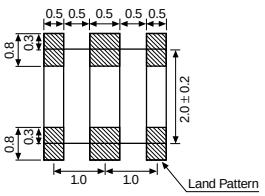
CSTCR□M□□G-RO



CSTCV□□.□□MTJ/MXJ-TC20

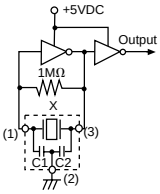


CSTCW□□□□MX-T



TEST CIRCUIT

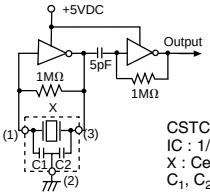
CSTCC□.□□MG-TC



CSTCC (2~3.99)
IC : 1/6TC4069UBPX2
X : Ceramic Resonator
C_1, C_2 : 15pF ±20%

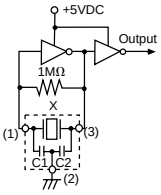
CSTCC (8.0~10.0)
IC : 1/6TC74HCV04X2
X : Ceramic Resonator
C_1, C_2 : 15pF ±20%

CSTCR□M□□G-RO



CSTCR
IC : 1/6TC4069UBPX2
X : Ceramic Resonator
C_1, C_2 : 15pF ±20%

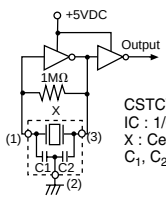
CSTCV□□.□□MTJ/MXJ-TC20



CSTCV□□.□MTJ
IC : 1/6TC40H004PX2
X : Ceramic Resonator
C_1, C_2 : 22pF ±20%

CSTCV□□.□MXJ
IC : 1/6TC74HCV04X2
(13.50~15.99)
1/6TC40H004PX2
(16.00~17.99)
1/6TC74HCV04X2
(18.00~20.00)
X : Ceramic Resonator
C_1, C_2 : 22pF ±20%

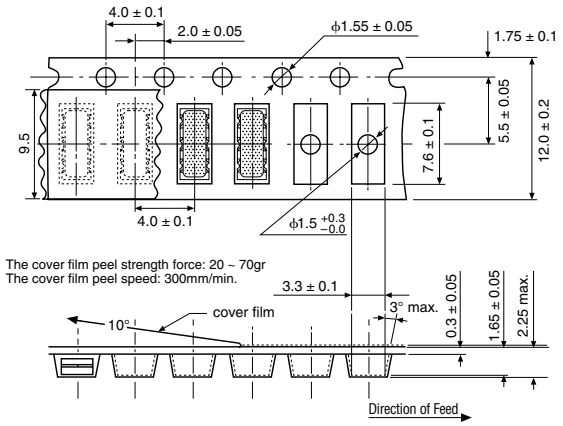
CSTCW□□□□MX-T



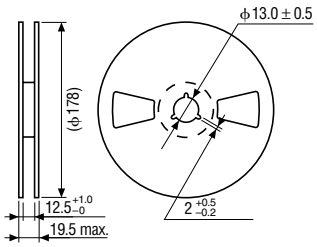
CSTCW
IC : 1/6TC74HC004X2
X : Ceramic Resonator
C_1, C_2 : 15pF ±20% (20.01~24.99MHz)
6pF ± 2pF (25.00~70.00MHz)

PLASTIC TAPE DIMENSIONS: mm

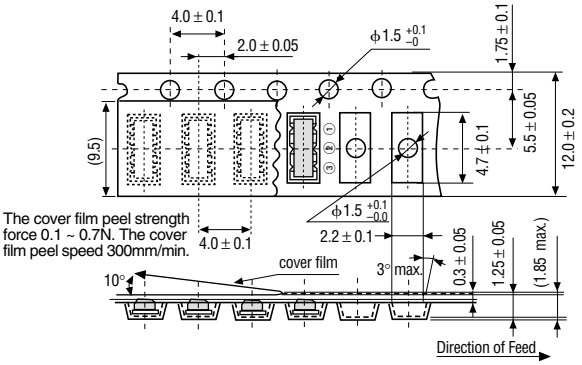
CSTCC□.□□MG-TC



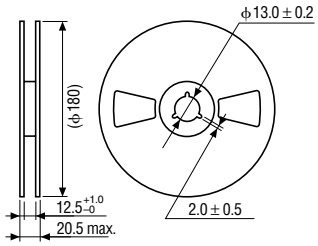
CSTCC□.□□MG-TC



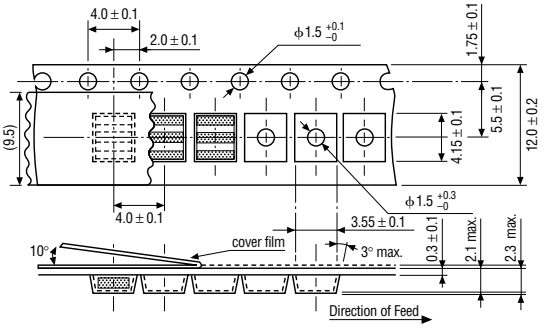
CSTCR□M□□G□□-RO



CSTCR□M□□G□□-RO



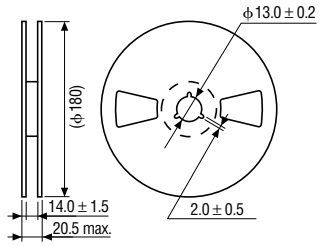
CSTCV□□.□□MTJ/MXJ-TC20



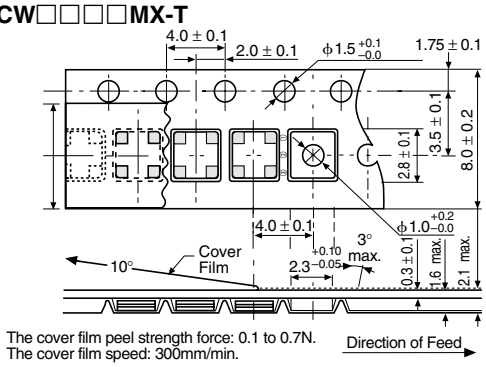
The cover film peel strength force: 20 ~ 70gr.

The cover film peel speed: 300mm/min.

CSTCV□□.□□MTJ/MXJ-TC20



CSTCW□□□□MX-T



CSTCW□□□□MX-T