

## MURATA Ceramic Resonators

**murata**  
 Innovator in Electronics

**CERAMIC RESONATORS (CERALOCK®)**  
**CHIP TYPE THREE-TERMINALS CSTCC/E/R/W/G SERIES**

## Features:

- Oscillation circuits do not require external load capacitors.
- The resonators are extremely small and have a low profile.
- No adjustment is necessary for oscillation circuits.
- Temperature range (°C): -20 to +80

## Application:

- Clock oscillators for microprocessors.
- Electronic control circuits for small electronic equipment
- Audio-visual applications (Camcorder, Remote Controller, etc.)
- Office automation equipment (DVD, CD-ROM, HDD, FDD, etc.)

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Fig.	Oscillating Frequency (MHz)	Price Each			Reel Qty.	Price Per Piece
				1	50	100		
CSTCC-G Series Commercial								
81-CSTCC2.0MG-TC	CSTCC2M00G53-R0	A	2.00	.66	.465	.425	2000	.331
81-CSTCC2M00G53Z-R0	CSTCC2M00G53Z-R0	A	2.00	.69	.57	.466	2000	.278
81-CSTCC2M00G56A-R0	CSTCC2M00G56A-R0	A	2.00	.84	.74	.684	2000	.396
81-CSTCC2M00G56-R0	CSTCC2M00G56-R0	A	2.00	.66	.465	.424	2000	.329
81-CSTCC2M00G56Z-R0	CSTCC2M00G56Z-R0	A	2.00	.69	.569	.466	2000	.32
81-CSTCC3.58MG-TC	CSTCC3M58G53-R0	A	3.58	.57	.414	.372	2000	.289
81-CSTCC3M58G53A-R0	CSTCC3M58G53A-R0	A	3.58	.78	.683	.634	2000	.367
81-CSTCC3M58G56A-R0	CSTCC3M58G56A-R0	A	3.58	.78	.68	.634	2000	.367
81-CSTCC3M58G56-R0	CSTCC3M58G56-R0	A	3.58	.57	.41	.372	2000	.287
81-CSTCC4M00G56-R0	CSTCC4M00G56-R0	A	4.00	.58	.416	.374	2000	.289
81-CSTCR6M00G55-R0	CSTCC6M00G56-R0	A	6.00	.44	.312	.282	3000	.219
CSTCR-G Series Commercial								
81-CSTCR4M00G53	CSTCR4M00G53-R0	B	4.00	.44	.312	.282	3000	.219
81-CSTCR4M00G53Z-R0	CSTCR4M00G53Z-R0	B	4.00	.47	.333	.302	3000	.188
81-CSTCR4M00G55Z-R0	CSTCR4M00G55Z-R0	B	4.00	.50	.43	.403	3000	.235
81-CSTCR4M19G53Z-R0	CSTCR4M19G53Z-R0	B	4.19	.50	.43	.403	3000	.235
81-CSTCR4M19G55-R0	CSTCR4M19G55-R0	B	4.19	.44	.312	.282	3000	.217
81-CSTCR4M19G55Z-R0	CSTCR4M19G55Z-R0	B	4.19	.50	.43	.403	3000	.235
81-CSTCR4M19G53	CSTCR4M19G53-R0	B	4.19	.44	.312	.282	3000	.219
81-CSTCR4M19G53Z-R0	CSTCR4M19G53Z-R0	B	4.19	.50	.43	.403	3000	.235
81-CSTCR4M19G55-R0	CSTCR4M19G55-R0	B	4.19	.44	.31	.282	3000	.217
81-CSTCR5M00G53	CSTCR5M00G53-R0	B	5.00	.44	.312	.282	3000	.219
81-CSTCR6M00G53	CSTCR6M00G53-R0	B	6.00	.44	.312	.282	3000	.219
CSTCE-G Series Commercial								
81-CSTCE8M00G55-R0	CSTCE8M00G55-R0	C	8.00	.49	.352	.32	3000	.25
81-CSTCE8M00G52Z-R0	CSTCE8M00G52Z-R0	C	8.00	.57	.491	.457	3000	.267
81-CSTCE10M0G52-R0	CSTCE10M0G52-R0	C	10.00	.49	.352	.32	3000	.248
81-CSTCE10M0G52Z-R0	CSTCE10M0G52Z-R0	C	10.00	.57	.49	.457	3000	.267
81-CSTCE10M0G55Z-R0	CSTCE10M0G55Z-R0	C	10.00	.57	.491	.457	3000	.267
81-CSTCE10M0G55-R0	CSTCE10M0G55-R0	C	10.00	.49	.352	.32	3000	.25
81-CSTCE12M0G52-R0	CSTCE12M0G52-R0	C	12.00	.49	.383	.32	3000	.248
81-CSTCE12M0G55-R0	CSTCE12M0G55-R0	C	12.00	.49	.352	.32	3000	.25
81-CSTCE16M0V53-R0	CSTCE16M0V53-R0	C	16.00	.51	.361	.33	3000	.22
81-CSTCE16M0V51-R0	CSTCE16M0V51-R0	C	16.00	.51	.361	.33	3000	.258
81-CSTCE16M3V51-R0	CSTCE16M3V51-R0	C	16.00	.46	.44	.339	3000	.282
81-CSTCE20M0V51-R0	CSTCE20M0V51-R0	C	20.00	.51	.361	.33	3000	.232
81-CSTCE20M0V53-R0	CSTCE20M0V53-R0	C	20.00	.51	.361	.33	3000	.22
CSTCW-X Series Commercial								
81-CSTCW24M0X53-R0	CSTCW24M0X53-R0	D	24.00	.30	.21	.191	3000	.149
81-CSTCW30M0X51-R0	CSTCW30M0X51-R0	D	30.00	.33	.28	.268	3000	.155
81-CSTCW30M0X53-R0	CSTCW30M0X53-R0	D	30.00	.33	.28	.268	3000	.155
81-CSTCW48M0X51-R0	CSTCW48M0X51-R0	D	48.00	.30	.21	.191	3000	.149
CSTCG-V Series Commercial								
81-CSTCG20M0V51-R0	CSTCG20M0V51-R0	E	20.00	.81	.70	.655	3000	.38
81-CSTCG24M0V53-R0	CSTCG24M0V53-R0	F	24.00	.81	.70	.655	3000	.38

## LEAD TYPE THREE-TERMINALS CSTLS SERIES

## Features:

- Oscillation circuits do not require external load capacitors.
- The resonators are compact, light weight and exhibit superior shock resistance performance.
- They enable the design of oscillator circuits requiring no adjustment.
- Temperature range (°C): -20 to +80

## Application:

- DTMF generators
- Clock oscillators for microcomputers
- Remote control units
- Automated office equipment

For quantities greater than listed, call for quote.

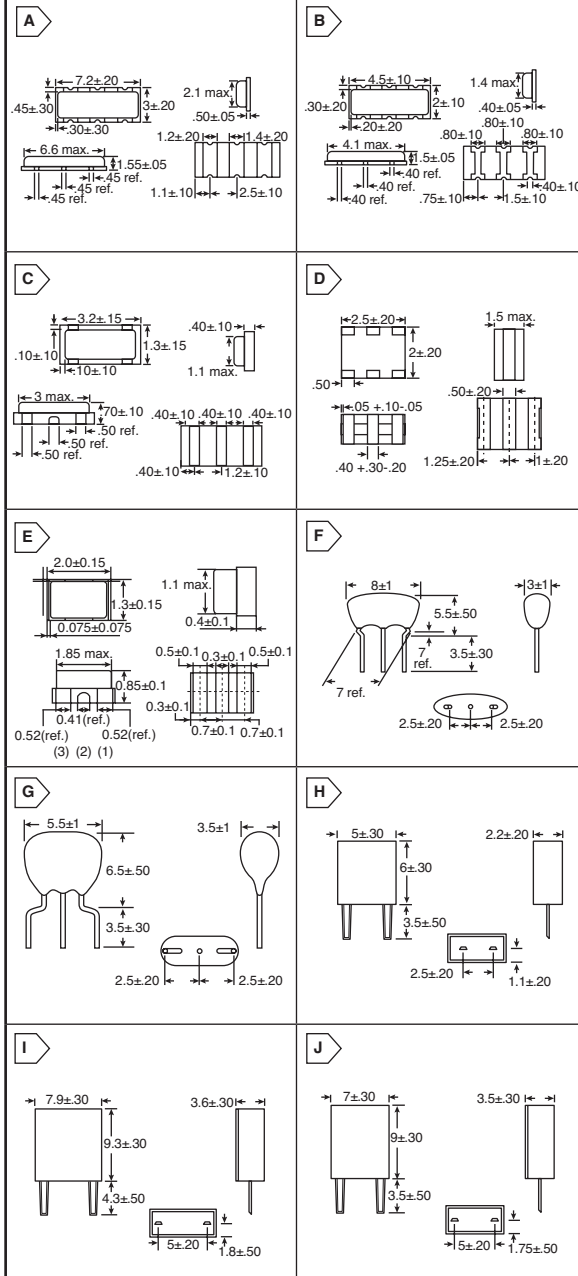
MOUSER STOCK NO.	Murata Part No.	Fig.	Oscillating Frequency (MHz)	Price Each				
CSTLS Series Commercial				1	50	100	500	1000
81-CSTLS0358MG03	CSTLS3M58G53-B0	F	3.58	.24	.17	.153	.122	.113
81-CSTLS3M58G53-A0	CSTLS3M58G53-A0	F	3.58	.24	.17	.155	.14	.126
81-CSTLS3M58G56-A0	CSTLS3M58G56-A0	F	3.58	.24	.17	.155	.14	.126
81-CSTLS3M58G56-B0	CSTLS3M58G56-B0	F	3.58	.24	.20	.155	.14	.126
81-CSTLS4M00G56-B0	CSTLS4M00G56-B0	F	4.00	.23	.17	.15	.14	.13
81-CSTLS4M00G56Z-A0	CSTLS4M00G56Z-A0	F	4.00	.19	.18	.17	.165	.16
81-CSTLS4000MG03	CSTLS4M00G53-B0	F	4.00	.23	.16	.15	.12	.11
81-CSTLS4M19G53-B0	CSTLS4M19G53-B0	F	4.19	.24	.17	.153	.122	.113
81-CSTLS4M19G53-A0	CSTLS4M19G53-A0	F	4.19	.24	.17	.155	.14	.126
81-CSTLS4M19G56-A0	CSTLS4M19G56-A0	F	4.19	.24	.17	.155	.14	.126
81-CSTLS4M19G56-B0	CSTLS4M19G56-B0	F	4.19	.24	.17	.155	.14	.126
81-CSTLS4M91G53-A0	CSTLS4M91G53-A0	F	4.91	.24	.17	.155	.14	.126
81-CSTLS4M91G56-A0	CSTLS4M91G56-A0	F	4.91	.24	.17	.155	.14	.126
81-CSTLS5M00G53-B0	CSTLS5M00G53-B0	E	5.00	.24	.17	.153	.122	.113
81-CSTLS6M00MG03	CSTLS6M00G53-B0	E	6.00	.24	.17	.153	.122	.113
81-CSTLS6M00G53-A0	CSTLS6M00G53-A0	F	6.00	.24	.17	.155	.14	.126
81-CSTLS6M00G56-A0	CSTLS6M00G56-A0	F	6.00	.24	.17	.155	.14	.126
81-CSTLS6M00G56-B0	CSTLS6M00G56-B0	F	6.00	.24	.20	.155	.14	.126
81-CSTLS8M00G53Z-A0	CSTLS8M00G53Z-A0	F	8.00	.18	.17	.161	.153	.145
81-CSTLS8M00G56-A0	CSTLS8M00G56-A0	F	8.00	.24	.16	.152	.13	.125
81-CSTLS8M00G56-B0	CSTLS8M00G56-B0	F	8.00	.24	.19	.152	.145	.14
81-CSTLS8M00G56Z-A0	CSTLS8M00G56Z-A0	F	8.00	.18	.17	.161	.153	.145
81-CSTLS1000MG03	CSTLS10M0G53-B0	F	10.00	.25	.17	.161	.129	.119
81-CSTLS16M0X51-A0	CSTLS16M0X51-A0	F	16.00	.44	.31	.28	.229	.22
81-CSTLS16M0X51Z-A0	CSTLS16M0X51Z-A0	F	16.00	.32	.26	.256	.243	.23
81-CSTLS16M0X53-A0	CSTLS16M0X53-A0	F	16.00	.44	.31	.28	.229	.22
81-CSTLS16M0X55-A0	CSTLS16M0X55-A0	F	16.00	.44	.31	.28	.229	.22
81-CSTLS16M0X55Z-A0	CSTLS16M0X55Z-A0	F	16.00	.32	.26	.256	.243	.23
81-CSTLS20M0X53-A0	CSTLS20M0X53-A0	F	20.00	.50	.351	.321	.271	.264
81-CSTLS16M0X53-B0	CSTLS16M0X53-B0	G	16.00	.44	.31	.28	.26	.24
81-CSTLS20M0X53-B0	CSTLS20M0X53-B0	G	20.00	.50	.351	.321	.257	.236

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**All Prices**  
**In USD**

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## DIMENSIONS (mm)



## LEAD TYPE TWO-TERMINAL CSBLA SERIES

## Features:

- The series comprises fixed, tuned, solid-state devices
- The resonators are miniature, light weight and exhibit excellent shock resistance
- Oscillating circuits requiring no adjustment can be designed by utilizing these resonators in conjunction with transistors or appropriate ICs.
- Temperature Range (°C): -20 to +80

## Application:

- Square-wave and sine-wave oscillator
- Clock generator for microprocessors
- Remote control systems

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Fig.	Oscillating Frequency (KHz)	Price Each				
				1	50	100	500	1000
Washable								
81-CSB400J	CSBLA400KJ5E-B0	H	400	1.41	1.33	1.27	.85	.68
81-CSB480J	CSBLA480KJ58-B0	H	480	.79	.67	.615	.59	.545
81-CSB800J	CSBLA800KJ58-B0	H	800	.84	.60	.547	.438	.404
81-CSB1000J	CSBLA1000J58-B0	H	1000	.48	.425	.341	.307	.278
Non-Washable								
81-CSB400P	CSBLA400KECE-B0	I	400	.56	.394	.36	.287	.265
81-CSB455E	CSBLA455KEC8-B0	J	455	.50	.351	.323	.258	.238
81-CSB480E	CSBLA480KEC8-B0	J	480	.49	.344	.317	.253	.234
81-CSB500E	CSBLA500KEC8-B0	J	500	.55	.40	.36	.287	.265
81-CSB540E	CSBLA540KEC8-B0	J	540	.65	.46	.419	.335	.309