

Ceramic Resonators



CSB SERIES CERAMIC RESONATORS

The CSB Series of ceramic resonators is designed to provide the design engineer with a rugged, relatively low frequency device in the frequency range of 375kHz to 1250kHz. Initial frequency tolerance is +/-0.5% which compares very favorably to the nominal +/-2%-3% requirements of one chip microprocessors. The CSB Series utilizes the area vibration mode of the piezoelectric ceramic element.

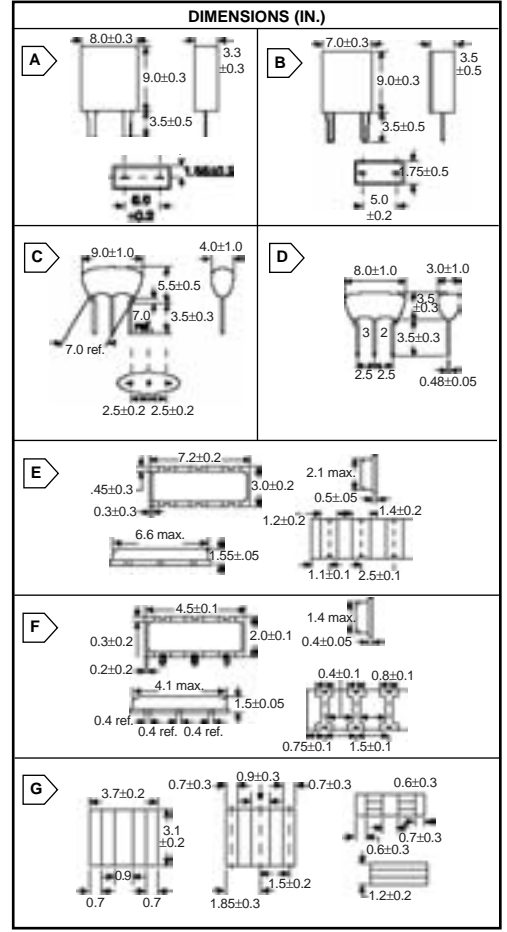
MOUSER STOCK NO.	Fig.	Murata Part No.	Freq. (kHz)	Tolerance	Price Each			
					1	10	100	500
Washable								
81-CSB400J	A	CSB400J	400	0.50%	1.39	1.32	1.24	1.08
81-CSB455J	A	CSB455J	455	0.50%	1.15	1.09	1.02	.90
81-CSB480J	A	CSB480J	480	0.50%	1.15	1.09	1.02	.90
81-CSB500J	A	CSB500J	500	0.50%	1.15	1.09	1.02	.90
81-CSB640JR	A	CSB640JR	640	0.50%	1.39	1.32	1.24	1.08
81-CSB800J	A	CSB800J	800	0.50%	1.05	.99	.93	.81
81-CSB1000J	A	CSB1000J	1000	0.50%	.89	.84	.80	.70
Non-Washable								
81-CSB400P	B	CSB400P	400	0.50%	.72	.68	.64	.56
81-CSB455E	B	CSB455E	455	0.50%	.67	.64	.60	.52
81-CSB480E	B	CSB480E	480	0.50%	.67	.64	.60	.52
81-CSB500E	B	CSB500E	500	0.50%	.71	.67	.63	.55

CST SERIES CERAMIC RESONATORS

The CST Series of ceramic resonators feature a built-in load capacitance. This feature eliminates any need for external loading capacitors and reduces component count, increases reliability and reduces size. These units are offered in the frequency range from 1.80MHz to 60.00MHz with an initial frequency tolerance of +/- 0.5%.

Surface Mount Device

MOUSER STOCK NO.	Fig.	Murata Part No.	Freq. (MHz)	Tolerance	Price Each			
					1	10	100	500
Manufacturers Type CSTLS Series								
81-CSTLS2M00G53-B0	C	CSTLS2M00G53-B0	2.00	0.50%	.63	.60	.56	.49
81-CSTLS16M0X53-B0	C	CSTLS16M0X53-B0	16.00	0.50%	.97	.92	.86	.76
Manufacturers Type CSTS Series								
81-CSTS0358MG03	D	CSTS0358MG03	3.58	0.50%	.45	.42	.40	.35
81-CSTS0400MG03	D	CSTS0400MG03	4.00	0.50%	.45	.42	.40	.35
81-CSTS0600MG03	D	CSTS0600MG03	6.00	0.50%	.45	.42	.40	.35
81-CSTS0800MG03	D	CSTS0800MG03	8.00	0.50%	.53	.50	.47	.41
81-CSTS1000MG03	D	CSTS1000MG03	10.00	0.50%	.60	.57	.53	.47
Manufacturers Type CSTCC Series								
81-CSTCC2.00MG-TC	E	CSTCC2.00MG-TC	2.00	0.50%	.97	.91	.86	.75
81-CSTCC3.58MG-TC	E	CSTCC3.58MG-TC	3.58	0.50%	.75	.71	.67	.59
81-CSTCC6.00MG-TC	E	CSTCC6.00MG-TC	6.00	0.50%	.74	.70	.66	.58
81-CSTCC8.00MG-TC	E	CSTCC8.00MG-TC	8.00	0.50%	.81	.77	.72	.63
81-CSTCC10.00MG-TC	E	CSTCC10.00MG-TC	10.00	0.50%	1.15	1.09	1.03	.90
Manufacturers Type CSTCR Series								
81-CSTCR4M00G53	F	CSTCR4M00G53-RO	4.00	0.50%	.86	.81	.77	.67
81-CSTCR4M19G53	F	CSTCR4M19G53-RO	4.19	0.50%	.74	.70	.66	.58
81-CSTCR4M91G53	F	CSTCR4M91G53-RO	4.91	0.50%	.76	.72	.68	.59
81-CSTCR5M00G53	F	CSTCR5M00G53-RO	5.00	0.50%	.86	.81	.77	.67
81-CSTCR6M00G53	F	CSTCR6M00G53-RO	6.00	0.50%	.75	.71	.67	.59
Manufacturers Type CSTCV Series								
81-CSTCV12.00MTJ0C4	G	CSTCV12.00MTJ0C4-TC	12.00	0.50%	1.34	1.27	1.19	1.05
81-CSTCV16.00MX40C4	G	CSTCV16.00MX40C4-TC	16.00	0.50%	1.47	1.39	1.31	1.15

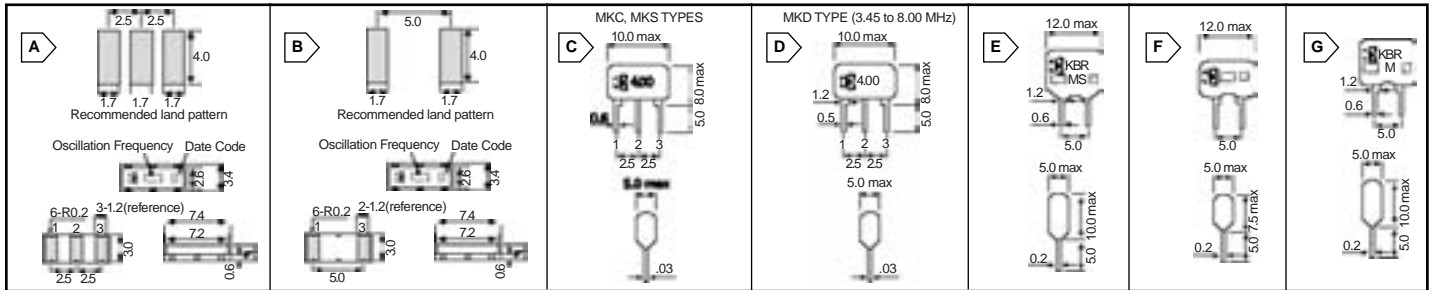


Frequency Control

AVX CERAMIC RESONATORS

AVX/Kyocera produces a broad range of high quality ceramic resonators. The high quality and extensive coverage of this product line allows optimum design of almost any oscillating circuit.

Ceramic resonators stand between quartz crystal oscillators and LC/RC oscillators in regard to accuracy but are considerably smaller, require no adjustments, have improved start-up times, and are low in cost.



- Features:**
- Built-in capacitors
 - High reliability chip resonator in a ceramic case which can be reflow soldered and washed.
 - Ultra-miniature size is suitable for compact equipment high mounting density.

- Specifications:**
- Temperature Characteristics: -20°C to +80°C
 - Resonant Impedance: 2.00-2.90MHz = 200 ohm max
3.00-3.57MHz = 100 ohm max
3.58-8.00MHz = 30 ohm max
8.01-20.00MHz = ohm max
 - Frequency Tolerance: +/- 0.5%



- Features:**
- Built-in capacitance
 - Simplified circuit

- Specifications:**
- Frequency Tol.: +/-0.5%
 - Resonant Impedance: 30

For quantities 2500 and up, call for quote.

MOUSER STOCK NO.	AVX Part No.	Fig.	Freq. (MHz)	Load Cap.	Price Each				
					1	10	100	500	1000
581-PBRC-2.00B	PBRC-2.00BR	A	2	33pF	.68	.63	.46	.41	.39
581-PBRC-2.45B	PBRC-2.45BR	A	2.45	33pF	1.04	.96	.70	.63	.60
581-PBRC-3.58B	PBRC-3.58BR	A	3.58	33pF	.39	.36	.26	.23	.22
581-PBRC-3.68B	PBRC-3.68BR	A	3.68	33pF	.39	.36	.26	.23	.22
581-PBRC-4.00B	PBRC-4.00BR	A	4	33pF	.39	.36	.26	.23	.22
581-PBRC-4.19B	PBRC-4.19BR	A	4.19	33pF	.70	.65	.47	.42	.40
581-PBRC-4.91B	PBRC-4.91BR	A	4.91	33pF	.44	.41	.30	.27	.26
581-PBRC-6.00B	PBRC-6.00BR	A	6	33pF	.73	.68	.50	.45	.42
581-PBRC-8.00B	PBRC-8.00BR	A	8	33pF	1.04	.97	.70	.63	.60
581-PBRC-20.00B	PBRC-20.00BR	A	20	10pF	1.37	1.27	.92	.83	.78
581-PBRC-2.00A	PBRC-2.00AR	B	2	none	1.04	.96	.70	.63	.60
581-PBRC-3.58A	PBRC-3.58AR	B	3.58	none	.59	.55	.40	.36	.34
581-PBRC-4.00A	PBRC-4.00AR	B	4	none	.70	.65	.47	.42	.40
581-PBRC-5.00A	PBRC-5.00AR	B	5	none	.73	.68	.50	.45	.42
581-PBRC-7.37A	PBRC-7.37AR	B	7.37	none	1.00	.93	.68	.61	.58

MOUSER STOCK NO.	AVX Part No.	Fig.	Freq. (MHz)	Load Cap.	Price Each				
					1	10	100	500	1000
581-KBR-3.58MKS	KBR-3.58MKS	C	3.58	built-in	.68	.63	.46	.41	.39
581-KBR-4.00MKS	KBR-4.00MKS	C	4	built-in	.27	.25	.18	.16	.15
581-KBR-4.00MKD	KBR-4.00MKD	D	4	built-in	.44	.41	.30	.27	.26
581-KBR-6.00MKS	KBR-6.00MKS	C	6	built-in	.65	.61	.44	.40	.37

- Features:**
- Ultracompact, lightweight design
 - Resistant to damage from impact and vibration
 - Excellent temperature stability (+/-0.3%)

- Specifications:**
- Frequency Tol.: +/-0.5%
 - Temperature Characteristic: -20 to +80 C

For quantities 2500 and up, call for quote.

MOUSER STOCK NO.	AVX Part No.	Fig.	Freq. (MHz)	Resonant Impedance	Price Each				
					1	10	100	500	1000
581-KBR-2.00MS	KBR-2.00MS	E	2	100 max	.65	.61	.44	.40	.37
581-KBR-3.58MSA	KBR-3.58MSA	F	3.58	30 max	.50	.47	.34	.31	.29
581-KBR-4.00MSA	KBR-4.00MSA	F	4	30 max	.27	.25	.18	.16	.15
581-KBR-12.00M	KBR-12.00M	G	12	40 max	.65	.61	.44	.40	.37