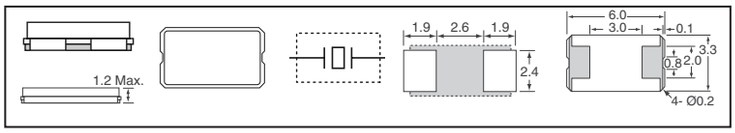
CITIZEN™ Serie CS10 - Keramik-Kristalle zur Oberflächenmontage

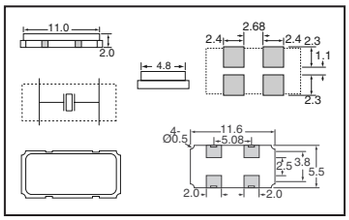
Spezifikationen: • **Frequenz/Temperatur:** ±50 ppm, -10 ° ~ 60 °C • **Betriebstemperatur:** -40 °C ~ 85 °C • **Antriebs-Level:** 50 µW Max. • **Frequenztoleranz:** ±30 ppm • **Nutzlast:** 18 pF • **Äquivalent-Reihenverlustwiderstand (ESR):** 50 Ω Max. • **Betriebsmodus:** Erste Harmonische



Frequenz (MHz)	Digi-Key Teilenr.	Gurtabschnittspreis pro Stück 1	10	50	Digi-Key Teilenr.	Preis. für geg. a. Rolle 2,000	Citizen Teilenr.
12.000000	300-8089-1-ND	1.00	.82	.73	300-8089-2-ND	507.66/M	CS10-12.000MABJTR
12.288000	300-8090-1-ND	1.00	.82	.73	300-8090-2-ND	507.66/M	CS10-12.288MABJTR
12.500000	300-8091-1-ND	1.00	.82	.73	300-8091-2-ND	507.66/M	CS10-12.500MABJTR
13.560000	300-8092-1-ND	1.00	.82	.73	300-8092-2-ND	507.66/M	CS10-13.560MABJTR
14.318180	300-8093-1-ND	1.00	.82	.73	300-8093-2-ND	507.66/M	CS10-14.31818MABJTR
14.745600	300-8094-1-ND	1.00	.82	.73	300-8094-2-ND	507.66/M	CS10-14.7456MABJTR
15.360000	300-8095-1-ND	1.33	1.09	.97	300-8095-2-ND	507.66/M	CS10-15.360MABJTR
16.000000	300-8096-1-ND	1.00	.82	.73	300-8096-2-ND	507.66/M	CS10-16.000MABJTR
16.384000	300-8097-1-ND	1.33	1.09	.97	300-8097-2-ND	507.66/M	CS10-16.384MABJTR
18.432000	300-8098-1-ND	1.00	.82	.73	300-8098-2-ND	507.66/M	CS10-18.432MABJTR
19.660800	300-8100-1-ND	1.00	.82	.73	300-8100-2-ND	507.66/M	CS10-19.6608MABJTR
20.000000	300-8101-1-ND	1.00	.82	.73	300-8101-2-ND	507.66/M	CS10-20.000MABJTR
22.118400	300-8102-1-ND	1.00	.82	.73	300-8102-2-ND	507.66/M	CS10-22.1184MABJTR
24.000000	300-8103-1-ND	1.00	.82	.73	300-8103-2-ND	507.66/M	CS10-24.000MABJTR
24.576000	300-8104-1-ND	1.00	.82	.73	300-8104-2-ND	507.66/M	CS10-24.576MABJTR
25.000000	300-8105-1-ND	1.00	.82	.73	300-8105-2-ND	507.66/M	CS10-25.000MABJTR
27.000000	300-8106-1-ND	1.00	.82	.73	300-8106-2-ND	507.66/M	CS10-27.000MABJTR
28.636360	300-8107-1-ND	1.00	.82	.73	300-8107-2-ND	507.66/M	CS10-28.63636MABJTR
29.498928	300-8109-1-ND	1.00	.82	.73	300-8109-2-ND	507.66/M	CS10-29.498928MABJTR
32.000000	300-8110-1-ND	1.33	1.09	.97	300-8110-2-ND	507.66/M	CS10-32.000MABJTR
33.000000	300-8112-1-ND	1.00	.82	.73	300-8112-2-ND	507.66/M	CS10-33.000MABJTR
40.000000	300-8114-1-ND	1.00	.82	.73	300-8114-2-ND	507.66/M	CS10-40.000MABJTR
48.000000	300-8115-1-ND	1.00	.82	.73	300-8115-2-ND	507.66/M	CS10-48.000MABJTR

CS20 Series Ceramic Surface Mount Crystals

Spezifikationen: •**Betriebstemperatur:** -40 °C ~ 85 °C • **Antriebs-Level:** 100 µW Max. • **Frequenztoleranz:** ±30 ppm • **Nutzlast:** 18 pF • **Frequenz/Temperatur:** ±50 ppm, -10 °C ~ 60 °C



Äquivalent-Reihenverlustwiderstand (ESR, R1)

Frequenz	ESR	Modus
3.5 MHz≤fo<4.0 MHz	200	Erste Harmonische
4.0 MHz≤fo<6.0 MHz	150	
6.0 MHz≤fo<10.0 MHz	100	
10.0 MHz≤fo<14.0 MHz	80	
14.0 MHz<fo≤30.0 MHz	50	

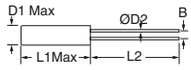
Frequenz (MHz)	Digi-Key Teilenr.	Gurtabschnittspreis pro Stück 1	10	50	Digi-Key Teilenr.	Preis. für geg. a. Rolle 2,000	Citizen Teilenr.
3.579545	300-8116-1-ND	.89	.73	.65	300-8116-2-ND	451.25/M	CS20-3.579545MABJTR
3.686400	300-8117-1-ND	.89	.73	.65	300-8117-2-ND	451.25/M	CS20-3.6864MABJTR
4.000000	300-8118-1-ND	.89	.73	.65	300-8118-2-ND	451.25/M	CS20-4.000MABJTR
4.096000	300-8119-1-ND	.89	.73	.65	300-8119-2-ND	451.25/M	CS20-4.096MABJTR
4.915200	300-8120-1-ND	.89	.73	.65	300-8120-2-ND	451.25/M	CS20-4.9152MABJTR
5.000000	300-8121-1-ND	.89	.73	.65	300-8121-2-ND	451.25/M	CS20-5.000MABJTR
6.000000	300-8122-1-ND	.89	.73	.65	300-8122-2-ND	451.25/M	CS20-6.000MABJTR
6.144000	300-8123-1-ND	1.06	.87	.78	300-8123-2-ND	451.25/M	CS20-6.144MABJTR
7.372800	300-8124-1-ND	.89	.73	.65	300-8124-2-ND	451.25/M	CS20-7.3728MABJTR
7.680000	300-8125-1-ND	1.06	.87	.78	300-8125-2-ND	451.25/M	CS20-7.680MABJTR
8.000000	300-8126-1-ND	.89	.73	.65	300-8126-2-ND	451.25/M	CS20-8.000MABJTR
10.000000	300-8127-1-ND	.89	.73	.65	300-8127-2-ND	451.25/M	CS20-10.000MABJTR
11.059200	300-8128-1-ND	.89	.73	.65	300-8128-2-ND	451.25/M	CS20-11.0592MABJTR
11.289600	300-8129-1-ND	.89	.73	.65	300-8129-2-ND	451.25/M	CS20-11.2896MABJTR
12.000000	300-8130-1-ND	.89	.73	.65	300-8130-2-ND	451.25/M	CS20-12.000MABJTR
12.288000	300-8131-1-ND	.89	.73	.65	300-8131-2-ND	451.25/M	CS20-12.288MABJTR
14.318180	300-8132-1-ND	1.06	.87	.78	—	—	CS20-14.31818MABJTR
14.745600	300-8133-1-ND	.89	.73	.65	300-8133-2-ND	451.25/M	CS20-14.7456MABJTR
15.360000	300-8134-1-ND	1.06	.87	.78	300-8134-2-ND	451.25/M	CS20-15.360MABJTR
16.000000	300-8135-1-ND	.89	.73	.65	300-8135-2-ND	451.25/M	CS20-16.000MABJTR
16.666000	300-8136-1-ND	1.06	.87	.78	—	—	CS20-16.666MABJTR
18.432000	300-8137-1-ND	1.06	.87	.78	300-8137-2-ND	451.25/M	CS20-18.432MABJTR
19.440000	300-8138-1-ND	1.06	.87	.78	300-8138-2-ND	451.25/M	CS20-19.440MABJTR
20.000000	300-8139-1-ND	.89	.73	.65	300-8139-2-ND	451.25/M	CS20-20.000MABJTR
20.480000	300-8140-1-ND	1.06	.87	.78	—	—	CS20-20.480MABJTR
22.118400	300-8141-1-ND	.89	.73	.65	300-8141-2-ND	451.25/M	CS20-22.1184MABJTR
24.000000	300-8142-1-ND	1.06	.87	.78	—	—	CS20-24.000MABJTR
24.576000	300-8143-1-ND	.89	.73	.65	300-8143-2-ND	451.25/M	CS20-24.576MABJTR
25.000000	300-8144-1-ND	.89	.73	.65	300-8144-2-ND	451.25/M	CS20-25.000MABJTR

Zylinderartige Kristalle

Spezifikationen: • **Frequenztoleranz:** CFS Series: ±20 ppm; Serie CFV und CSA: ±30 ppm • **Frequenztemperaturmerkmale:** Serie CSA: ±50 ppm (-10 °C ~ 60 °C) • **Betriebstemperaturbereich:** -10 °C ~ 60 °C • **Lagertemperaturbereich:** -40 °C ~ 85 °C • **Antriebs-Level:** Serie CFS und CFV: 1 µW Max.; Serie CSA: 50 µW ~ 100µW • **Isolierwiderstand**: Min. 500 M • **Alterung (1. Jahr)**: Serie CFS: Max. ±3 ppm; Serie CFV und CSA: Max. ±5 ppm

Äquivalent-Reihenverlustwiderstand (ESR, R1)

Frequenz	ESR	Modus
3.5 MHz ≤ fo < 4 MHz	200	Erste Harmonische
4 MHz ≤ fo < 6 MHz	150	
6 MHz ≤ fo < 10 MHz	100	
10 MHz ≤ fo ≤32 MHz	50	
30 MHz < fo < 36 MHz	100	3. Oberton
36 MHz ≤ fo < 66.6666 MHz	80	



Serie	Abmessungen (mm) L1 Max.	L2	D1 Max.	D2	B
CFS145	5.1	4.3	1.5	0.2	0.45
CFS206	6.2	10	2.1	0.26	0.7
CFS308	8.2	10	3.1	0.35	1.1
CFV206	6.2	10	2.1	0.26	0.7
CSA310	10.5	10	3.2	0.32	1.1
CSA309	9	10	3.2	0.32	1.1

Serie	Frequenz	Last-kap. (pF)	Shunt-Kap. (pF)	Digi-Key Teilenr.	Stückpreis 1	10	50	Citizen Teilenr.
CFS145	32.768000 kHz	12.5	1.00	300-1003-ND	.62	.54	.45	CFS145-32.768KDZF
CFS206	32.768000 kHz	6.0	1.35	300-1000-ND	.23	.20	.13	CFS206-32.768KDZBB
	32.768000 kHz	12.5	1.35	300-1002-ND	.23	.20	.13	CFS206-32.768KDZF
CFS308	32.768000 kHz	12.5	1.60	300-1001-ND	.23	.20	.13	CFS308-32.768KDZF
CFV206	32.000000 kHz	12.5	0.80 - 1.70	300-3007-ND	.81	.73	.52	CFV206-32.000KAZF
	40.000000 kHz	12.5	0.80 - 1.70	300-3015-ND	.81	.73	.52	CFV206-40.000KAZF
	60.000000 kHz	12.5	0.80 - 1.70	300-3018-ND	.81	.73	.52	CFV206-60.000KAZF
	60.005000 kHz	12.5	0.80 - 1.70	300-3019-ND	.81	.73	.52	CFV206-60.005KAZF
	65.536000 kHz	12.5	0.80 - 1.70	300-3020-ND	.81	.73	.52	CFV206-65.536KAZF
	75.000000 kHz	12.5	0.80 - 1.70	300-3021-ND	.81	.73	.52	CFV206-75.000KAZF
	76.790000 kHz	12.5	0.80 - 1.70	300-3022-ND	.81	.73	.52	CFV206-76.790KAZF
	76.800000 kHz	12.5	0.80 - 1.70	300-3023-ND	.81	.73	.52	CFV206-76.800KAZF
	76.810000 kHz	12.5	0.80 - 1.70	300-3024-ND	.81	.73	.52	CFV206-76.810KAZF
	77.500000 kHz	12.5	0.80 - 1.70	300-3025-ND	.81	.73	.52	CFV206-77.500KAZF
	77.503000 kHz	12.5	0.80 - 1.70	300-3026-ND	.81	.73	.52	CFV206-77.503KAZF
	96.000000 kHz	12.5	0.80 - 1.70	300-3029-ND	.98	.89	.64	CFV206-96.000KAZF
	100.000000 kHz	12.5	0.80 - 1.70	300-3030-ND	.81	.73	.52	CFV206-100.000KAZF
CSA309	4.096000 MHz	18.0	5.00	300-5001-ND	.65	.56	.47	CSA309-4.096MABJ
	4.800000 MHz	18.0	5.00	300-5002-ND	.65	.56	.47	CSA309-4.800MABJ
	4.915000 MHz	18.0	5.00	300-5003-ND	.65	.56	.47	CSA309-4.915MABJ
	5.120000 MHz	18.0	5.00	300-5004-ND	.65	.56	.47	CSA309-5.120MABJ
	5.529600 MHz	18.0	5.00	300-5005-ND	.65	.56	.47	CSA309-5.5296MABJ
	6.000000 MHz	18.0	5.00	300-5006-ND	.65	.56	.47	CSA309-6.000MABJ
	6.144000 MHz	18.0	5.00	300-5007-ND	.65	.56	.47	CSA309-6.144MABJ
	7.372800 MHz	18.0	5.00	300-5008-ND	.65	.56	.47	CSA309-7.3728MABJ
	7.680000 MHz	18.0	5.00	300-5009-ND	.65	.56	.47	CSA309-7.680MABJ
	8.000000 MHz	18.0	5.00	300-5010-ND	.65	.56	.47	CSA309-8.000MABJ
	8.000156 MHz	18.0	5.00	300-5011-ND	.65	.56	.47	CSA309-8.000156MABJ
	8.192000 MHz	18.0	5.00	300-5012-ND	.65	.56	.47	CSA309-8.192MABJ
	9.216000 MHz	18.0	5.00	300-5013-ND	.65	.56	.47	CSA309-9.216MABJ
	9.600000 MHz	18.0	5.00	300-5014-ND	.65	.56	.47	CSA309-9.600MABJ
	9.830400 MHz	18.0	5.00	300-5015-ND	.65	.56	.47	CSA309-9.8304MABJ
	10.000000 MHz	18.0	5.00	300-5016-ND	.65	.56	.47	CSA309-10.000MABJ
	10.240000 MHz	18.0	5.00	300-5017-ND	.65	.56	.47	CSA309-10.240MABJ
	11.000000 MHz	18.0	5.00	300-5018-ND	.65	.56	.47	CSA309-11.000MABJ
	11.059200 MHz	18.0	5.00	300-5019-ND	.65	.56	.47	CSA309-11.0592MABJ
	11.289600 MHz	18.0	5.00	300-5020-ND	.65	.56	.47	CSA309-11.2896MABJ
	12.000000 MHz	18.0	5.00	300-5021-ND	.65	.56	.47	CSA309-12.000MABJ
	12.288000 MHz	18.0	5.00	300-5022-ND	.65	.56	.47	CSA309-12.288MABJ
	12.352000 MHz	18.0	5.00	300-5023-ND	.65	.56	.47	CSA309-12.352MABJ
	12.500000 MHz	18.0	5.00	300-5024-ND	.65	.56	.47	CSA309-12.500MABJ
	13.500000 MHz	18.0	5.00	300-5025-ND	.65	.56	.47	CSA309-13.500MABJ
	14.318180 MHz	18.0	5.00	300-5026-ND	.65	.56	.47	CSA309-14.31818MABJ
	14.745600 MHz	18.0	5.00	300-5027-ND	.65	.56	.47	CSA309-14.7456MABJ
	15.000000 MHz	18.0	5.00	300-5028-ND	.65	.56	.47	CSA309-15.000MABJ
	15.360000 MHz	18.0	5.00	300-5029-ND	.65	.56	.47	CSA309-15.360MABJ
	16.000000 MHz	18.0	5.00	300-5030-ND	.65	.56	.47	CSA309-16.000MABJ
	16.000312 MHz	18.0	5.00	300-5031-ND	.65	.56	.47	CSA309-16.000312MABJ
	16.257000 MHz	18.0	5.00	300-5032-ND	.65	.56	.47	CSA309-16.257MABJ
	16.384000 MHz	18.0	5.00	300-5033-ND	.65	.56	.47	CSA309-16.384MABJ
	16.667000 MHz	18.0	5.00	300-5034-ND	.65	.56	.47	CSA309-16.667MABJ
	16.934400 MHz	18.0	5.00	300-5035-ND	.65	.56	.47	CSA309-16.9344MABJ
	17.734475 MHz	18.0	5.00	300-5036-ND	.65	.56	.47	CSA309-17.734475MABJ
	18.000000 MHz	18.0	5.00	300-5037-ND	.65	.56	.47	CSA309-18.000MABJ
	18.432000 MHz	18.0	5.00	300-5038-ND	.65	.56	.47	CSA309-18.432MABJ
	18.869000 MHz	18.0	5.00	300-5039-ND	.65	.56	.47	CSA309-18.869MABJ
	19.660800 MHz	18.0	5.00	300-5040-ND	.65	.56	.47	CSA309-19.6608MABJ
	20.000000 MHz	18.0	5.00	300-5041-ND	.65	.56	.47	CSA309-20.000MABJ
	20.480000 MHz	18.0	5.00	300-5042-ND	.65	.56	.47	CSA309-20.480MABJ
	22.118400 MHz	18.0	5.00	300-5043-ND	.65	.56	.47	CSA309-22.1184MABJ
	24.000000 MHz	18.0	5.00	300-5044-ND	.65	.56	.47	CSA309-24.000MABJ
	24.576000 MHz	18.0	5.00	300-5045-ND	.65	.56	.47	CSA309-24.576MABJ
	25.000000 MHz	18.0	5.00	300-5046-ND	.65	.56	.47	CSA309-25.000MABJ
	25.175000 MHz	18.0	5.00	300-5047-ND	.65	.56	.47	CSA309-25.175MABJ
	27.000000 MHz	18.0	5.00	300-5048-ND	.65	.56	.47	CSA309-27.000MABJ
	28.000000 MHz	18.0	5.00	300-5049-ND	.65	.56	.47	CSA309-28.000MABJ
	28.322000 MHz	18.0	5.00	300-5050-ND	.65	.56	.47	CSA309-28.322MABJ
	28.636360 MHz	18.0	5.00	300-5051-ND	.65	.56	.47	CSA309-28.63636MABJ
	29.491200 MHz	18.0	5.00	300-5052-ND	.65	.56	.47	CSA309-29.4912MABJ
	30.000000 MHz	18.0	5.00	300-5053-ND	.65	.56	.47	CSA309-30.000MABJ
	32.000000 MHz	18.0	5.00	300-5054-ND	.65	.56	.47	CSA309-32.000MABJ
	32.768000 MHz	18.0	5.00	300-5055-ND	.65	.56	.47	CSA309-32.768MABJ
	33.000000 MHz	18.0	5.00	300-5056-ND	.65	.56	.47	CSA309-33.000MABJ
	33.333300 MHz	18.0	5.00	300-5057-ND	.65	.56	.47	CSA309-33.3333MABJ
	33.868800 MHz	18.0	5.00	300-5058-ND	.65	.56	.47	CSA309-33.8688MABJ
	40.000000 MHz	18.0	5.00	300-5060-ND	.65	.56	.47	CSA309-40.000MABJ
	48.000000 MHz	18.0	5.00	300-5061-ND	.65	.56	.47	CSA309-48.000MABJ
	49.152000 MHz	18.0	5.00	300-5062-ND	.65	.56	.47	CSA309-49.152MABJ
	50.000000 MHz	18.0	5.00	300-5063-ND	.65	.56	.47	CSA309-50.000MABJ
	53.125000 MHz	18.0	5.00	300-5064-ND	.65	.56	.47	CSA309-53.125MABJ
	60.000000 MHz	18.0	5.00	300-5065-ND	.65	.56	.47	CSA309-60.000MABJ
	64.000000 MHz	18.0	5.00	300-5066-ND	.65	.56	.47	CSA309-64.000MABJ
	66.666600 MHz	18.0	5.00	300-5067-ND	.65	.56	.47	CSA309-66.6666MABJ
CSA310	3.579545 MHz	18.0	5.00	300-1008-ND	.65	.56	.47	CSA310-3.579545MABJ
	3.686400 MHz	18.0	5.00	300-1009-ND	.65	.56	.47	CSA310-3.6864MABJ
	4.000000 MHz	18.0	5.00	300-1010-ND	.65	.56	.47	CSA310-4.000MABJ

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