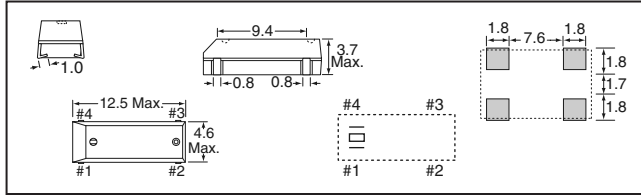


# CM309S Series Plastic Surface Mount Crystals

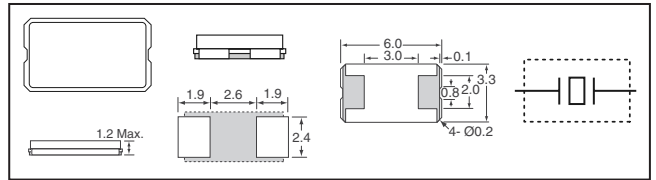
**Specifications:**  
 • Operating Temperature: -40°C ~ 85°C  
 • Drive Level: 100µW Maximum  
 • Load Capacitance: 18.0pF  
 • Frequency/Temperature: ±50ppm, -10°C ~ 60°C  
 • Equivalent Series Resistance (ESR): 3.5MHz ≤ f < 4MHz 200Ω Maximum; 4MHz ≤ f < 6MHz 150Ω Maximum; 6MHz ≤ f < 10MHz 100Ω Maximum; 10MHz ≤ f < 14MHz 80Ω Maximum; 14MHz ≤ f < 30MHz 50Ω Maximum



Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape & Reel Pricing		Citizen Part No.
		10	50		1,000	2,000	
3.579545	300-8040-1-ND	9.01	7.38	6.56	—	—	CM309S3.579545MABJTR
3.686400	300-8041-1-ND	9.01	7.38	6.56	—	—	CM309S3.6864MABJTR
4.000000	300-8042-1-ND	9.01	7.38	6.56	300-8042-2-ND	5438.16	CM309S4.000MABJTR
4.096000	300-8043-1-ND	9.01	7.38	6.56	300-8043-2-ND	5438.16	CM309S4.096MABJTR
4.915200	300-8044-1-ND	9.01	7.38	6.56	300-8044-2-ND	5438.16	CM309S4.9152MABJTR
5.120000	300-2036-1-ND	9.01	7.38	6.56	300-2036-2-ND	5438.16	CM309S5.120MABJTR
5.529600	300-2037-1-ND	9.01	7.38	6.56	300-2037-2-ND	5438.16	CM309S5.5296MABJTR
6.144000	300-8046-1-ND	9.01	7.38	6.56	300-8046-2-ND	5438.16	CM309S6.144MABJTR
8.000156	300-2038-1-ND	9.01	7.38	6.56	300-2038-2-ND	5438.16	CM309S8.000156MABJTR
8.192000	300-2039-1-ND	9.01	7.38	6.56	300-2039-2-ND	5438.16	CM309S8.192MABJTR
9.216000	300-2040-1-ND	9.01	7.38	6.56	300-2040-2-ND	5438.16	CM309S9.216MABJTR
9.600000	300-2041-1-ND	9.01	7.38	6.56	300-2041-2-ND	5438.16	CM309S9.600MABJTR
9.830000	300-8050-1-ND	9.01	7.38	6.56	—	—	CM309S9.830MABJTR
10.000000	300-8051-1-ND	9.01	7.38	6.56	—	—	CM309S10.000MABJTR
10.240000	300-8052-1-ND	9.01	7.38	6.56	300-8052-2-ND	5438.16	CM309S10.240MABJTR
12.288000	300-8056-1-ND	9.01	7.38	6.56	300-8056-2-ND	5438.16	CM309S12.288MABJTR
12.352000	300-2042-1-ND	9.01	7.38	6.56	300-2042-2-ND	5438.16	CM309S12.352MABJTR
12.500000	300-2043-1-ND	9.01	7.38	6.56	—	—	CM309S12.500MABJTR
13.500000	300-2044-1-ND	9.01	7.38	6.56	300-2044-2-ND	5438.16	CM309S13.500MABJTR
14.745600	300-8058-1-ND	9.01	7.38	6.56	—	—	CM309S14.7456MABJTR
15.000000	300-8059-1-ND	9.01	7.38	6.56	300-8059-2-ND	5438.16	CM309S15.000MABJTR
15.360000	300-8060-1-ND	9.01	7.38	6.56	—	—	CM309S15.360MABJTR
16.000000	300-8061-1-ND	9.01	7.38	6.56	300-8061-2-ND	5438.16	CM309S16.000MABJTR
16.000312	300-2045-1-ND	9.01	7.38	6.56	300-2045-2-ND	5438.16	CM309S16.000312MABJTR
16.257000	300-2046-1-ND	9.01	7.38	6.56	300-2046-2-ND	5438.16	CM309S16.257MABJTR
16.384000	300-2047-1-ND	9.01	7.38	6.56	300-2047-2-ND	5438.16	CM309S16.384MABJTR
16.934400	300-2048-1-ND	9.01	7.38	6.56	300-2048-2-ND	5438.16	CM309S16.9344MABJTR
17.734475	300-2049-1-ND	9.01	7.38	6.56	300-2049-2-ND	5438.16	CM309S17.734475MABJTR
18.000000	300-2050-1-ND	9.01	7.38	6.56	300-2050-2-ND	5438.16	CM309S18.000MABJTR
18.432000	300-8063-1-ND	9.01	7.38	6.56	300-8063-2-ND	5438.16	CM309S18.432MABJTR
18.869000	300-2051-1-ND	9.01	7.38	6.56	300-2051-2-ND	5438.16	CM309S18.869MABJTR
19.440000	300-8064-1-ND	9.01	7.38	6.56	—	—	CM309S19.440MABJTR
19.660800	300-8065-1-ND	9.01	7.38	6.56	300-8065-2-ND	5438.16	CM309S19.6608MABJTR
20.000000	300-8066-1-ND	9.01	7.38	6.56	—	—	CM309S20.000MABJTR
22.118400	300-8068-1-ND	9.01	7.38	6.56	300-8068-2-ND	5438.16	CM309S22.1184MABJTR
24.000000	300-8069-1-ND	9.01	7.38	6.56	—	—	CM309S24.000MABJTR
24.576000	300-2052-1-ND	9.01	7.38	6.56	300-2052-2-ND	5438.16	CM309S24.576MABJTR
25.000000	300-8071-1-ND	9.01	7.38	6.56	300-8071-2-ND	5438.16	CM309S25.000MABJTR
25.175000	300-2053-1-ND	9.01	7.38	6.56	300-2053-2-ND	5438.16	CM309S25.175MABJTR
27.000000	300-8072-1-ND	9.01	7.38	6.56	300-8072-2-ND	5438.16	CM309S27.000MABJTR
28.000000	300-2054-1-ND	9.01	7.38	6.56	300-2054-2-ND	5438.16	CM309S28.000MABJTR
28.322000	300-2055-1-ND	9.01	7.38	6.56	300-2055-2-ND	5438.16	CM309S28.322MABJTR
28.636600	300-8073-1-ND	9.01	7.38	6.56	300-8073-2-ND	5438.16	CM309S28.6366MABJTR
32.000000	300-8076-1-ND	9.01	7.38	6.56	300-8076-2-ND	5438.16	CM309S32.000MABJTR
32.768000	300-8077-1-ND	9.01	7.38	6.56	300-8077-2-ND	5438.16	CM309S32.768MABJTR
33.000000	300-8078-1-ND	9.01	7.38	6.56	300-8078-2-ND	5438.16	CM309S33.000MABJTR
33.868800	300-2056-1-ND	9.01	7.38	6.56	300-2056-2-ND	5438.16	CM309S33.8688MABJTR
36.000000	300-8080-1-ND	9.01	7.38	6.56	—	—	CM309S36.000MABJTR
48.000000	300-8082-1-ND	9.01	7.38	6.56	300-8082-2-ND	5438.16	CM309S48.000MABJTR
50.000000	300-8084-1-ND	9.01	7.38	6.56	—	—	CM309S50.000MABJTR
53.125000	300-8085-1-ND	9.01	7.38	6.56	—	—	CM309S53.125MABJTR
60.000000	300-8086-1-ND	9.01	7.38	6.56	—	—	CM309S60.000MABJTR
66.666600	300-8088-1-ND	9.01	7.38	6.56	—	—	CM309S66.6666MABJTR

# CS10 Series Ceramic Surface Mount Crystals

**Specifications:**  
 • Frequency/Temperature: ±50ppm, -10°C ~ 60°C • Operating Temperature: -40°C ~ 85°C • Drive Level: 50µW Max. • Frequency Tolerance: ±30ppm • Load Capacitance: 18.0pF • Equivalent Series Resistance (ESR): 50Ω Max. • Operating Mode: Fundamental

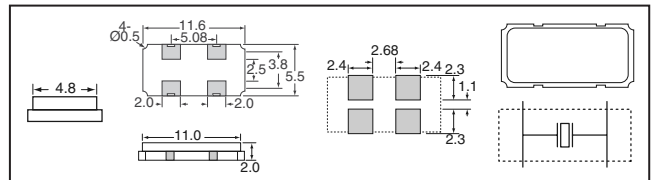


Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape & Reel Pricing		Citizen Part No.
		1	50		2,000	2,000	
12.000000	300-8089-1-ND	10.16	8.30	7.38	300-8089-2-ND	5159.70/M	CS10-12.000MABJTR
12.288000	300-8090-1-ND	10.16	8.30	7.38	300-8090-2-ND	5159.70/M	CS10-12.288MABJTR
12.500000	300-8091-1-ND	10.16	8.30	7.38	300-8091-2-ND	5159.70/M	CS10-12.500MABJTR
13.560000	300-8092-1-ND	10.16	8.30	7.38	300-8092-2-ND	5159.70/M	CS10-13.560MABJTR
14.318180	300-8093-1-ND	10.16	8.30	7.38	300-8093-2-ND	5159.70/M	CS10-14.31818MABJTR
14.745600	300-8094-1-ND	10.16	8.30	7.38	300-8094-2-ND	5159.70/M	CS10-14.7456MABJTR
15.360000	300-8095-1-ND	13.51	11.06	9.83	—	—	CS10-15.360MABJTR
16.000000	300-8096-1-ND	10.16	8.30	7.38	300-8096-2-ND	5159.70/M	CS10-16.000MABJTR
16.384000	300-8097-1-ND	13.51	11.06	9.83	300-8097-2-ND	5159.70/M	CS10-16.384MABJTR
18.432000	300-8098-1-ND	10.16	8.30	7.38	300-8098-2-ND	5159.70/M	CS10-18.432MABJTR
19.660800	300-8100-1-ND	10.16	8.30	7.38	300-8100-2-ND	5159.70/M	CS10-19.6608MABJTR
20.000000	300-8101-1-ND	10.16	8.30	7.38	300-8101-2-ND	5159.70/M	CS10-20.000MABJTR
22.118400	300-8102-1-ND	10.16	8.30	7.38	300-8102-2-ND	5159.70/M	CS10-22.1184MABJTR
24.000000	300-8103-1-ND	10.16	8.30	7.38	300-8103-2-ND	5159.70/M	CS10-24.000MABJTR
24.576000	300-8104-1-ND	10.16	8.30	7.38	300-8104-2-ND	5159.70/M	CS10-24.576MABJTR
25.000000	300-8105-1-ND	10.16	8.30	7.38	300-8105-2-ND	5159.70/M	CS10-25.000MABJTR
27.000000	300-8106-1-ND	10.16	8.30	7.38	300-8106-2-ND	5159.70/M	CS10-27.000MABJTR
28.636600	300-8107-1-ND	10.16	8.30	7.38	300-8107-2-ND	5159.70/M	CS10-28.6366MABJTR
32.000000	300-8110-1-ND	13.51	11.06	9.83	—	—	CS10-32.000MABJTR
33.000000	300-8112-1-ND	10.16	8.30	7.38	300-8112-2-ND	5159.70/M	CS10-33.000MABJTR
40.000000	300-8114-1-ND	10.16	8.30	7.38	300-8114-2-ND	5159.70/M	CS10-40.000MABJTR
48.000000	300-8115-1-ND	10.16	8.30	7.38	300-8115-2-ND	5159.70/M	CS10-48.000MABJTR

# CS20 Series Ceramic Surface Mount Crystals

**Specifications:**  
 • Operating Temperature: -40°C ~ 85°C  
 • Drive Level: 100µW Max.  
 • Frequency Tolerance: ±30ppm  
 • Load Capacitance: 18.0pF  
 • Frequency/Temperature: ±50ppm, -10°C ~ 60°C

Equivalent Series Resistance (ESR Ω Max.)		
Frequency	ESR	Mode
3.5MHz ≤ f < 4.0MHz	200	Fundamental
4.0MHz ≤ f < 6.0MHz	150	
6.0MHz ≤ f < 10.0MHz	100	
10.0MHz ≤ f < 14.0MHz	80	
14.0MHz ≤ f < 30.0MHz	50	



Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape & Reel Pricing		Citizen Part No.
		1	50		2,000	2,000	
3.579545	300-8116-1-ND	9.01	7.38	6.56	300-8116-2-ND	4586.40/M	CS20-3.579545MABJTR
3.686400	300-8117-1-ND	9.01	7.38	6.56	300-8117-2-ND	4586.40/M	CS20-3.6864MABJTR
4.000000	300-8118-1-ND	9.01	7.38	6.56	300-8118-2-ND	4586.40/M	CS20-4.000MABJTR
4.096000	300-8119-1-ND	9.01	7.38	6.56	300-8119-2-ND	4586.40/M	CS20-4.096MABJTR
4.915200	300-8120-1-ND	9.01	7.38	6.56	300-8120-2-ND	4586.40/M	CS20-4.9152MABJTR
5.000000	300-8121-1-ND	9.01	7.38	6.56	300-8121-2-ND	4586.40/M	CS20-5.000MABJTR
6.000000	300-8122-1-ND	9.01	7.38	6.56	300-8122-2-ND	4586.40/M	CS20-6.000MABJTR
6.144000	300-8123-1-ND	10.81	8.85	7.87	300-8123-2-ND	4586.40/M	CS20-6.144MABJTR
7.372800	300-8124-1-ND	9.01	7.38	6.56	300-8124-2-ND	4586.40/M	CS20-7.3728MABJTR
7.680000	300-8125-1-ND	10.81	8.85	7.87	300-8125-2-ND	4586.40/M	CS20-7.680MABJTR
8.000000	300-8126-1-ND	9.01	7.38	6.56	300-8126-2-ND	4586.40/M	CS20-8.000MABJTR
10.000000	300-8127-1-ND	9.01	7.38	6.56	300-8127-2-ND	4586.40/M	CS20-10.000MABJTR
11.059200	300-8128-1-ND	9.01	7.38	6.56	300-8128-2-ND	4586.40/M	CS20-11.0592MABJTR
11.289600	300-8129-1-ND	9.01	7.38	6.56	300-8129-2-ND	4586.40/M	CS20-11.2896MABJTR
12.000000	300-8130-1-ND	9.01	7.38	6.56	300-8130-2-ND	4586.40/M	CS20-12.000MABJTR
12.288000	300-8131-1-ND	9.01	7.38	6.56	300-8131-2-ND	4586.40/M	CS20-12.288MABJTR
14.318180	300-8132-1-ND	10.81	8.85	7.87	—	—	CS20-14.31818MABJTR
14.745600	300-8133-1-ND	9.01	7.38	6.56	300-8133-2-ND	4586.40/M	CS20-14.7456MABJTR
15.360000	300-8134-1-ND	10.81	8.85	7.87	—	—	CS20-15.360MABJTR
16.000000	300-8135-1-ND	9.01	7.38	6.56	300-8135-2-ND	4586.40/M	CS20-16.000MABJTR
18.432000	300-8137-1-ND	10.81	8.85	7.87	300-8137-2-ND	4586.40/M	CS20-18.432MABJTR
19.440000	300-8138-1-ND	10.81	8.85	7.87	300-8138-2-ND	4586.40/M	CS20-19.440MABJTR
20.000000	300-8139-1-ND	9.01	7.38	6.56	300-8139-2-ND	4586.40/M	CS20-20.000MABJTR