

EPSON TOYOCOM Surface Mount Quartz Crystal Products (Cont.)



Frequency	Digi-Key Part No.	Cut Tape Price Each			Tape and Reel†		Epson Part No.
		1	10	50	Qty.	Pricing	
Fig. 3 — MC-156							
32.76800 KHz	SE2412CT-ND	1.55	1.33	1.11	1,000	618.99	MC-156 32.7680KA-A0
32.76800 KHz	SER2412CT-ND	1.55	1.33	1.11	1,000	618.99	MC-156 32.7680KA-A0:ROHS
Fig. 4 — MC-306							
32.76800 KHz	SE2407CT-ND	1.14	.97	.81	1,000	451.69	MC-306 32.7680K-A0
32.76800 KHz	SER2407CT-ND	1.14	.97	.81	1,000	451.69	MC-306 32.7680K-A0:ROHS
32.76800 KHz	SE2417CT-ND	1.14	.97	.81	250	161.32	MC-306 32.768K-E3
32.76800 KHz	SER2417CT-ND	1.14	.97	.81	250	161.32	MC-306 32.768K-E3:ROHS
Fig. 5 — MC-405							
32.76800 KHz	SE2405CT-ND	1.14	.97	.81	1,000	451.69	MC-405 32.7680K-A0
Fig. 6 — MC-406							
32.76800 KHz	SE2418CT-ND	1.14	.97	.81	250	161.32	MC-406 32.768K-A3
32.76800 KHz	SER2418CT-ND	1.14	.97	.81	250	161.32	MC-406 32.768K-A3:ROHS

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		1	10	50	Qty.	Pricing	
Fig. 7 — FC-135 — RoHS Compliant							
32.76800 KHz	SER2405CT-ND	1.14	.97	.81	1,000	451.69	MC-405 32.7680K-A0:ROHS
Fig. 8 — FC-255 — RoHS Compliant							
32.76800 KHz	SE2413CT-ND	3.56	3.05	2.54	250	507.86	FC-135 32.7680KA-A3
Fig. 9 — MA-406 — RoHS Compliant							
32.76800 KHz	SE2415CT-ND	2.22	1.90	1.59	250	316.66	FC-255 32.7680K-A3
10.00000 MHz	SER3646CT-ND	1.34	1.15	.96	250	191.19	MA-406 10.0000M-C3:ROHS
12.00000 MHz	SER3643CT-ND	1.34	1.15	.96	250	191.19	MA-406 12.0000M-C3:ROHS
14.31818 MHz	SER3647CT-ND	1.34	1.15	.96	250	191.19	MA-406 14.31818M-C3:ROHS
16.00000 MHz	SER3645CT-ND	1.34	1.15	.96	250	191.19	MA-406 16.0000M-C3:ROHS
25.00000 MHz	SER3644CT-ND	1.26	1.08	.90	250	179.55	MA-406 25.0000M-C3:ROHS
25.00000 MHz	SER3642CT-ND	1.26	1.08	.90	250	179.55	MA-406 25.0000M-G3:ROHS

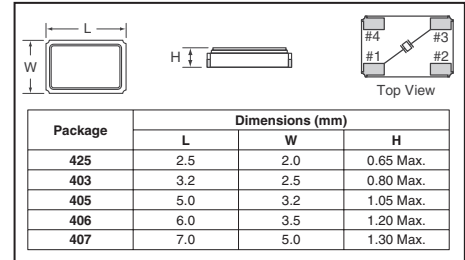
† For Tape and Reel part number change CT-ND to TR-ND. ♦ RoHS Compliant

CTS 400 Series SMD Crystals



Features: • Stable frequency over temperature and drive level • Ideal for application to high-density circuit boards. • Reliable precision and excellent shock performance in wireless telecommunications devices

Specifications	425 Series	403 Series	405 Series	406 Series	407 Series
Frequency Tolerance:	±30ppm @ 25°C	403C11: ±10ppm @ 25°C 403C35: ±30ppm @ 25°C	405C11: ±10ppm @ 25°C 405C35: ±30ppm @ 25°C	±30ppm @ 25°C	±30ppm @ 25°C
Frequency Stability:	±50ppm	403C11: ±10ppm 403C35: ±50ppm	405C11: ±10ppm 405C35: ±50ppm	±50ppm	±50ppm
Shunt Capacitance:	5pF Maximum	5pF Maximum	7pF Maximum	4pF Maximum	7pF Maximum
Drive Level:	100µW Maximum				
Operating Mode:	Fundamental	Fundamental	Fundamental	Fundamental	9.60 - 44.736: Fundamental 50.000: 3rd Overtone
Operating Temperature:	-20°C - 70°C				
Storage Temperature:	-40°C - 85°C	-55°C - 125°C	-55°C - 125°C	-55°C - 125°C	-55°C - 125°C



Frequency (MHz)	ESR (Ω)	Load Cap. (pF)	Digi-Key Part No.	Cut Tape Price Each			Tape and Reel†		CTS Part No.
				1	10	100	Qty.	Pricing	
425 Series									
16.00000	100	13	CTX804CT-ND	3.70	3.22	2.23	3,000	1334.12/M	425F35B01M00000
20.00000	100	13	CTX805CT-ND	4.27	3.70	2.56	3,000	1535.77/M	425F35B02M00000
27.00000	80	20	CTX852CT-ND	2.93	2.55	1.76	3,000	1055.90/M	425F35E027M00000
40.00000	60	13	CTX806CT-ND	4.01	3.48	2.41	3,000	1442.20/M	425F35B04M00000
403 Series									
12.00000	150	18	CTX839CT-ND	1.83	1.59	1.10	3,000	659.80/M	403C35D12M00000
13.00000	150	20	CTX731CT-ND	2.38	2.06	1.43	3,000	855.00/M	403C35D13M00000
16.00000	80	10	CTX847CT-ND	1.88	1.63	1.13	3,000	674.32/M	403C11A16M00000
16.00000	80	18	CTX840CT-ND	1.83	1.59	1.10	3,000	659.80/M	403C35D16M00000
16.00000	80	20	CTX732CT-ND	3.20	2.78	1.92	3,000	1151.83/M	403C11E16M00000
20.00000	60	10	CTX848CT-ND	1.88	1.63	1.13	3,000	674.32/M	403C11A20M00000
20.00000	60	18	CTX841CT-ND	1.83	1.59	1.10	3,000	659.80/M	403C35D20M00000
24.00000	60	10	CTX849CT-ND	1.88	1.63	1.13	3,000	674.32/M	403C11A24M00000
24.00000	60	18	CTX842CT-ND	1.72	1.50	1.04	3,000	619.60/M	403C35D24M00000
26.00000	60	20	CTX733CT-ND	2.23	1.94	1.34	3,000	802.91/M	403C35E26M00000
27.00000	60	20	CTX734CT-ND	2.23	1.94	1.34	3,000	802.91/M	403C35E27M00000
27.00000	60	18	CTX843CT-ND	1.72	1.50	1.04	3,000	619.60/M	403C35D27M00000
30.00000	60	18	CTX844CT-ND	1.72	1.50	1.04	3,000	619.60/M	403C35D30M00000
32.00000	60	10	CTX850CT-ND	3.01	2.61	1.81	3,000	1081.65/M	403C11A32M00000
32.00000	60	20	CTX735CT-ND	3.01	2.61	1.81	3,000	1081.65/M	403C11E32M00000
40.00000	60	10	CTX851CT-ND	1.76	1.53	1.06	3,000	633.24/M	403C11A40M00000
40.00000	60	18	CTX845CT-ND	1.72	1.50	1.04	3,000	619.60/M	403C35D40M00000
48.00000	60	18	CTX846CT-ND	1.72	1.50	1.04	3,000	619.60/M	403C35D48M00000
405 Series									
10.00000	50	10	CTX832CT-ND	1.95	1.69	1.17	1,000	727.73	405C11A10M00000
10.00000	50	20	CTX817CT-ND	1.72	1.49	1.03	1,000	640.74	405C35E10M00000
11.05920	50	13	CTX638CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B11M05920
12.00000	50	10	CTX833CT-ND	1.95	1.69	1.17	1,000	727.73	405C11A12M00000
12.00000	50	18	CTX818CT-ND	1.72	1.49	1.03	1,000	640.74	405C35D12M00000
12.00000	50	20	CTX819CT-ND	1.72	1.49	1.03	1,000	640.74	405C35E12M00000
12.00000	50	13	CTX639CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B12M00000
12.80000	50	13	CTX640CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B12M80000
13.00000	50	13	CTX641CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B13M00000
14.31818	50	13	CTX642CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B14M31818
14.40000	50	13	CTX643CT-ND	2.33	1.87	1.56	1,000	868.26	405C35B14M40000
14.74560	50	13	CTX644CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B14M74560
15.36000	50	13	CTX645CT-ND	2.33	1.87	1.56	1,000	868.26	405C35B15M36000
16.00000	50	10	CTX834CT-ND	1.95	1.69	1.17	1,000	727.73	405C11A16M00000
16.00000	50	18	CTX820CT-ND	1.72	1.49	1.03	1,000	640.74	405C35D16M00000
16.00000	50	20	CTX821CT-ND	1.72	1.49	1.03	1,000	640.74	405C35E16M00000
16.00000	50	13	CTX646CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B16M00000
16.36800	50	13	CTX647CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B16M36800
19.20000	50	13	CTX648CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B19M20000
19.68000	50	13	CTX649CT-ND	2.33	1.87	1.56	1,000	868.26	405C35B19M68000
20.00000	50	10	CTX835CT-ND	1.95	1.69	1.17	1,000	727.73	405C11A20M00000
20.00000	50	13	CTX650CT-ND	2.33	2.02	1.40	1,000	868.26	405C35B20M00000
20.00000	50	18	CTX822CT-ND	1.72	1.49	1.03	1,000	640.74	405C35D20M00000
20.00000	50	20	CTX823CT-ND	1.72	1.49	1.03	1,000	640.74	405C35E20M00000
24.00000	50	10	CTX836CT-ND	1.83	1.59	1.10	1,000	683.40	405C11A24M00000

Frequency (MHz)	ESR (Ω)	Load Cap. (pF)	Digi-Key Part No.	Cut Tape Price Each			Tape and Reel†		CTS Part No.
				1	10	100	Qty.	Pricing	
406 Series									
8.00000	60	18	CTX853CT-ND	1.72	1.49	1.03	1,000	640.74	406C35D08M00000
10.00000	60	18	CTX854CT-ND	1.72	1.49	1.03	1,000	640.74	406C35D10M00000
12.00000	60	18	CTX855CT-ND	1.72	1.49	1.03	1,000	640.74	406C35D12M00000
16.00000	40	18	CTX856CT-ND	1.72	1.49	1.03	1,000	640.74	406C35D16M00000
18.43200	40	13	CTX668CT-ND	2.58	2.25	1.56	1,000	965.29	406C35B18M43200
20.00000	40	18	CTX857CT-ND	1.72	1.49	1.03	1,000	640.74	406C35D20M00000
20.48000	40	13	CTX670CT-ND	2.42	1.95	1.62	1,000	906.48	406C35B20M48000
22.00000	40	13	CTX671CT-ND	2.42	1.95	1.62	1,000	906.48	406C35B22M00000
24.00000	40	18	CTX858CT-ND	1.62	1.40	.97	1,000	601.70	406C35D24M00000
24.57600	40	13	CTX672CT-ND	2.42	2.11	1.46	1,000	906.48	406C35B24M57600
25.00000	40	18	CTX859CT-ND	1.62	1.40	.97	1,000	601.70	406C35D25M00000
27.00000	40	13	CTX673CT-ND	2.42	2.11	1.46	1,000	906.48	406C35B27M00000
30.00000	40	13	CTX674CT-ND	2.42	2.11	1.46	1,000	906.48	406C35B30M00000
32.76800	40	13	CTX675CT-ND	2.42	1.95	1.62	1,000	906.48	406C35B32M76800
35.32800	40	13	CTX676CT-ND	2.42	1.95	1.62	1,000	906.48	406C35B35M32800
38.88000	40	13	CTX677CT-ND	2.42	1.95	1.62	1,000	906.48	406C