

EPSON TOYOCOM

CMOS/TTL Oscillators (Cont.)

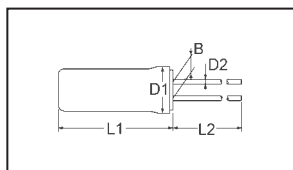
Series	Frequency (MHz)	Digi-Key Part No.	Price Each			Epson Part No.	
			1	10	50		
Half Size — RoHS Compliant							
SG-531P CMOS/TTL with Output Enable	1.544000	SER1216-ND	4.12	3.54	2.59	SG-531P 1.5440MC:ROHS	
	1.843200	SER1201-ND	4.12	3.54	2.59	SG-531P 1.8432MC:ROHS	
	2.457600	SER1202-ND	4.12	3.54	2.59	SG-531P 2.4576MC:ROHS	
	3.276800	SER1221-ND	4.12	3.54	2.59	SG-531P 3.2768MC:ROHS	
	3.579545	SER1222-ND	4.12	3.54	2.59	SG-531P 3.579545MC:ROHS	
	3.686400	SER1223-ND	4.12	3.54	2.59	SG-531P 3.6864MC:ROHS	
	4.000000	SER1203-ND	4.12	3.54	2.59	SG-531P 4.0000MC:ROHS	
	4.096000	SER1224-ND	4.12	3.54	2.59	SG-531P 4.0960MC:ROHS	
	4.915200	SER1204-ND	4.12	3.54	2.59	SG-531P 4.9152MC:ROHS	
	7.372800	SER1227-ND	4.12	3.54	2.59	SG-531P 7.3728MC:ROHS	
	8.000000	SER1207-ND	4.12	3.54	2.59	SG-531P 8.0000MC:ROHS	
	8.192000	SER1228-ND	4.12	3.54	2.59	SG-531P 8.1920MC:ROHS	
10.000000	SER1208-ND	4.12	3.54	2.59	SG-531P 10.0000MC:ROHS		
11.059200	SER1232-ND	4.12	3.54	2.59	SG-531P 11.0592MC:ROHS		
12.288000	SER1233-ND	4.12	3.54	2.59	SG-531P 12.2880MC:ROHS		
SG-531PH CMOS with Output Enable	14.745600	SER1234-ND	4.12	3.54	2.59	SG-531P 14.7456MC:ROHS	
	18.432000	SER1238-ND	4.12	3.54	2.59	SG-531P 18.4320MC:ROHS	
	19.660800	SER1240-ND	4.12	3.54	2.59	SG-531P 19.6608MC:ROHS	
	22.118400	SER1242-ND	4.12	3.54	2.59	SG-531P 22.1184MC:ROHS	
	24.000000	SER1213-ND	4.12	3.54	2.59	SG-531P 24.0000MC:ROHS	
	32.000000	SER1111-ND	4.12	3.54	2.59	SG-531PH 32.0000MC:ROHS	
	66.000000	SER1128-ND	4.33	3.72	2.73	SG-531PH 66.0000MC:ROHS	
SG-531PTJ TTL with Output Enable	27.000000	SER1817-ND	4.12	3.54	2.59	SG-531PTJ 27.0000MC:ROHS	
	28.636360	SER1820-ND	4.12	3.54	2.59	SG-531PTJ 28.63636MC:ROHS	
	29.491000	SER1821-ND	4.12	3.54	2.59	SG-531PTJ 29.4910MC:ROHS	
	33.000000	SER1826-ND	4.12	3.54	2.59	SG-531PTJ 33.0000MC:ROHS	
	Full Size — RoHS Compliant						
SG-51P CMOS/TTL with Output Enable	1.843200	SER1701-ND	4.12	3.54	2.59	SG-51P 1.8432MC:ROHS	
	2.000000	SER1717-ND	4.12	3.54	2.59	SG-51P 2.0000MC:ROHS	
	4.000000	SER1703-ND	4.12	3.54	2.59	SG-51P 4.0000MC:ROHS	
	6.000000	SER1706-ND	4.12	3.54	2.59	SG-51P 6.0000MC:ROHS	
	7.372800	SER1727-ND	4.12	3.54	2.59	SG-51P 7.3728MC:ROHS	
	8.000000	SER1707-ND	4.12	3.54	2.59	SG-51P 8.0000MC:ROHS	
	10.000000	SER1708-ND	4.12	3.54	2.59	SG-51P 10.0000MC:ROHS	
	12.000000	SER1709-ND	4.12	3.54	2.59	SG-51P 12.0000MC:ROHS	
	12.288000	SER1733-ND	4.12	3.54	2.59	SG-51P 12.2880MC:ROHS	
	14.745600	SER1734-ND	4.12	3.54	2.59	SG-51P 14.7456MC:ROHS	
	16.000000	SER1711-ND	4.12	3.54	2.59	SG-51P 16.0000MC:ROHS	
	18.432000	SER1738-ND	4.12	3.54	2.59	SG-51P 18.4320MC:ROHS	
	20.000000	SER1712-ND	4.12	3.54	2.59	SG-51P 20.0000MC:ROHS	
	24.576000	SER1743-ND	4.12	3.54	2.59	SG-51P 24.5760MC:ROHS	
	SG-51PTJ TTL with Output Enable	32.000000	SER1811-ND	4.12	3.54	2.59	SG-51PTJ 32.0000MC:ROHS

A462-ND Aries Electronics Inc., Full Size, 4-Pin Oscillator Sockets..... **.92/1 13.81/25 43.28/100**
A463-ND Aries Electronics Inc., Half Size, 4-Pin Oscillator Sockets..... **.92/1 13.81/25 43.28/100**

Quartz Crystals - C-Type, Cylinder

Specifications:
 • **Nominal Frequency:** 32.768kHz • **Operating Temperature:** -10°C ~ 60°C • **Drive Level:** 1.0μW Maximum • **Crystal Load Capacitance:** ±20ppm • **Series Resistance:** C-001R = 35kΩ Maximum (18kΩ Typ.); C-002RX and C-004R = 50kΩ Maximum (30kΩ Typ.); and C-005R = 50kΩ Maximum (37kΩ Typ.)

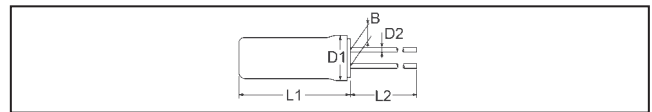
Model	L1 Max.	L2 Min.	D1 Max.	D2	B
C-001R	8.0	9.0	ø3.1	ø0.3	1.1
C-002RX	6.0	4.0	ø2.0	ø0.2	0.7
C-004R	5.0	4.0	ø1.5	ø0.18	0.5
C-005R	4.6	4.0	ø1.2	ø0.15	0.3



Load Cap. (pF)	Digi-Key Part No.	Price Each			Epson Part No.
		1	10	50	
12.5	SER3201-ND	.26	.22	.19	C-001R 32.7680K-A:PBFFREE
12.5	SER3202-ND	.26	.22	.19	C-002RX 32.7680K-A:PBFFREE
6	SER3205-ND	.26	.22	.19	C-002RX 32.7680K-E:PBFFREE
12.5	SER3203-ND	1.29	1.11	.93	C-004R 32.7680K-A:PBFFREE
9	SER3204-ND	5.27	4.52	3.77	C-005R 32.7680K-AC:PBFFREE

Quartz Crystals - C-2-Type, Cylinder

Specifications: • **Operating Temperature:** -10°C ~ 60°C • **Drive Level:** 1.0μW Maximum • **Crystal Load Capacitance:** All parts have 11pF load capacitance • **Series Resistance Over 20kHz and Under 99kHz:** 35kΩ ~ 15kΩ • **Series Resistance Over 100kHz and Under 200kHz:** 12kΩ ~ 8kΩ



Model	L1 Maximum	L2 Minimum	D1 Maximum	D2	B
C-2-Type	6.0	4.0	ø2.0	ø0.2	0.7

Frequency (kHz)	Digi-Key Part No.	Price Each			Epson Part No.
		1	10	50	
26.6670	SE3303-ND	.98	.83	.59	C-2 26.6670K-P
31.2500	SE3308-ND	.98	.83	.59	C-2 31.2500K-P
31.5000	SE3309-ND	.98	.83	.59	C-2 31.5000K-P
32.9190	SE3312-ND	.98	.83	.59	C-2 32.9190K-P
36.0000	SE3313-ND	.98	.83	.59	C-2 36.0000K-P
75.0000	SE3323-ND	.98	.83	.59	C-2 75.0000K-P
83.0000	SE3330-ND	1.18	.99	.70	C-2 83.0000K-P
111.0000	SE3334-ND	1.18	.99	.70	C-2 111.0000K-P
120.8475	SE3336-ND	1.18	.99	.70	C-2 120.8475K-P

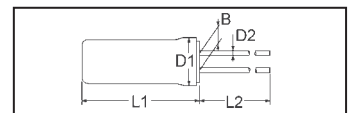
RoHS Compliant					
Frequency (kHz)	Digi-Key Part No.	Price Each			Epson Part No.
		1	10	50	
20.0000	SER3301-ND	1.15	.99	.83	C-2 20.0000K-P:PBFFREE
25.6000	SER3302-ND	1.15	.99	.83	C-2 25.6000K-P:PBFFREE
26.6670	SER3303-ND	1.15	.99	.83	C-2 26.6670K-P:PBFFREE
28.0000	SER3304-ND	1.15	.99	.83	C-2 28.0000K-P:PBFFREE
30.0000	SER3305-ND	1.15	.99	.83	C-2 30.0000K-P:PBFFREE
31.2500	SER3308-ND	1.15	.99	.83	C-2 31.2500K-P:PBFFREE
32.0000	SER3310-ND	1.15	.99	.83	C-2 32.0000K-P:PBFFREE
36.0000	SER3313-ND	1.15	.99	.83	C-2 36.0000K-P:PBFFREE
38.0000	SER3314-ND	1.27	1.09	.91	C-2 38.0000KA-P:PBFFREE
38.4000	SER3315-ND	1.15	.99	.83	C-2 38.4000K-P:PBFFREE
40.0000	SER3316-ND	1.15	.99	.83	C-2 40.0000K-P:PBFFREE
60.0000	SER3320-ND	1.15	.99	.83	C-2 60.0000K-P:PBFFREE
65.5350	SER3322-ND	1.15	.99	.83	C-2 65.5350K-P:PBFFREE
75.0000	SER3323-ND	1.15	.99	.83	C-2 75.0000K-P:PBFFREE
76.8000	SER3324-ND	1.15	.99	.83	C-2 76.8000K-P:PBFFREE
83.0000	SER3330-ND	1.38	1.18	.99	C-2 83.0000K-P:PBFFREE
96.0000	SER3331-ND	1.38	1.18	.99	C-2 96.0000K-P:PBFFREE
100.0000	SER3333-ND	1.38	1.18	.99	C-2 100.0000K-P:PBFFREE
120.0000	SER3335-ND	1.38	1.18	.99	C-2 120.0000K-P:PBFFREE
131.0720	SER3337-ND	1.66	1.42	1.19	C-2 131.0720K-P:PBFFREE
149.4750	SER3338-ND	1.66	1.42	1.19	C-2 149.4750K-P:PBFFREE



Quartz Crystals - CA-301 Type, Cylinder

Specifications:
 • **Operating Temperature:** -20°C ~ 70°C • **Drive Level:** 2mW Maximum • **Recommended Level:** 10μW ~ 100μW Typ. • **Frequency Tolerance (Standard):** ±30ppm • **Load Capacitance:** 81pF

Frequency MHz	Series Resistance		Mode
	Over	Under	
4.0	5.5	150Ω Max.	Fundamental
5.5	6.0	100Ω Max.	
6.0	10.0	80Ω Max.	
10.0	12.0	60Ω Max.	
12.0	16.0	50Ω Max.	
16.0	30.0	40Ω Max.	
30.0	36.0	100Ω Max.	3rd Overtone
36.0	64.0	80Ω Max.	



Model	L1 Max.	L2 Min.	D1 Max.	D2	B
Under 5.5MHz	9.3	9.5	ø3.1	ø0.3	1.1
Over 5.5MHz	8.9	9.5	ø3.1	ø0.3	1.1

Frequency (MHz)	Digi-Key Part No.	Price Each			Epson Part No.
		1	10	50	
4.433619	SE3406-ND†	1.56	1.34	1.14	CA-301 4.433619M-C
6.144000	SE3410-ND	.77	.65	.45	CA-301 6.1440M-C
7.200000	SE3412-ND	.77	.65	.45	CA-301 7.200M-C
8.432000	SE3416-ND	.77	.65	.45	CA-301 8.432M-C
13.500000	SE3427-ND	.77	.65	.45	CA-301 13.5000M-C
15.000000	SE3432-ND	.77	.65	.45	CA-301 15.000M-C
18.000000	SE3435-ND	.77	.65	.45	CA-301 18.000M-C
18.432000	SE3436-ND	.77	.65	.45	CA-301 18.432M-C
19.660800	SE3437-ND	.77	.65	.45	CA-301 19.6608M-C

† Operating Temperature -10°C ~ 60°C (Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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