

Maximum ESR (Ohm)	Load Cap.	Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each				Digi-Key Part No.	Tape and Reel Pricing		ECS Part No.
				1	10	100	500		1,000		
ECX-32, -20°C ~ 70°C, ±50ppm, 3.2 x 2.5 x .70mm											
100	20pF	16.000000	XC1137CT-ND	3.57	3.22	2.68	2.15	XC1137TR-ND	1785.00	ECS-160-20-33-TR	
100	20pF	18.432000	XC1138CT-ND	3.57	3.22	2.68	2.15	XC1138TR-ND	1785.00	ECS-184-20-33-TR	
100	20pF	19.660800	XC1139CT-ND	3.57	3.22	2.68	2.15	XC1139TR-ND	1785.00	ECS-196-20-33-TR	
100	20pF	20.000000	XC1140CT-ND	3.57	3.22	2.68	2.15	XC1140TR-ND	1785.00	ECS-200-20-33-TR	
100	20pF	24.000000	XC1141CT-ND	3.57	3.22	2.68	2.15	XC1141TR-ND	1785.00	ECS-240-20-33-TR	
100	20pF	25.000000	XC1142CT-ND	3.57	3.22	2.68	2.15	XC1142TR-ND	1785.00	ECS-250-20-33-TR	
100	20pF	27.000000	XC1143CT-ND	3.57	3.22	2.68	2.15	XC1143TR-ND	1785.00	ECS-270-20-33-TR	
50	Series	30.000000	XC1145CT-ND	3.57	3.22	2.68	2.15	XC1145TR-ND	1785.00	ECS-300-S-33-TR	
50	20pF	30.000000	XC1144CT-ND	3.57	3.22	2.68	2.15	XC1144TR-ND	1785.00	ECS-300-20-33-TR	
50	Series	32.000000	XC1147CT-ND	3.57	3.22	2.68	2.15	XC1147TR-ND	1785.00	ECS-320-S-33-TR	
50	20pF	32.000000	XC1146CT-ND	3.57	3.22	2.68	2.15	XC1146TR-ND	1785.00	ECS-320-20-33-TR	
50	Series	36.000000	XC1149CT-ND	3.57	3.22	2.68	2.15	XC1149TR-ND	1785.00	ECS-360-S-33-TR	
50	20pF	36.000000	XC1148CT-ND	3.57	3.22	2.68	2.15	XC1148TR-ND	1785.00	ECS-360-20-33-TR	
50	Series	40.000000	XC1151CT-ND	3.57	3.22	2.68	2.15	XC1151TR-ND	1785.00	ECS-400-S-33-TR	
50	20pF	40.000000	XC1150CT-ND	3.57	3.22	2.68	2.15	XC1150TR-ND	1785.00	ECS-400-20-33-TR	
50	Series	48.000000	XC1153CT-ND	3.57	3.22	2.68	2.15	XC1153TR-ND	1785.00	ECS-480-S-33-TR	
50	20pF	48.000000	XC1152CT-ND	3.57	3.22	2.68	2.15	XC1152TR-ND	1785.00	ECS-480-20-33-TR	
ECX-2236 for Bluetooth™ and Zigbee Applications, ±10±10, -20°C ~ 70°C, 2.5 x 2.0 x .55mm											
100	8pF	16.000000	XC1552CT-ND	3.45	3.11	2.59	2.07	XC1552TR-ND	1725.00	ECS-160-8-36CKM	
100	8pF	18.432000	XC1553CT-ND	3.45	3.11	2.59	2.07	XC1553TR-ND	1725.00	ECS-184-8-36CKM	
100	8pF	19.200000	XC1554CT-ND	3.45	3.11	2.59	2.07	XC1554TR-ND	1725.00	ECS-192-8-36CKM	
100	8pF	19.660800	XC1555CT-ND	3.45	3.11	2.59	2.07	XC1555TR-ND	1725.00	ECS-196-8-36CKM	
100	8pF	20.000000	XC1556CT-ND	3.45	3.11	2.59	2.07	XC1556TR-ND	1725.00	ECS-200-8-36CKM	
100	8pF	24.000000	XC1557CT-ND	3.45	3.11	2.59	2.07	XC1557TR-ND	1725.00	ECS-240-8-36CKM	
100	8pF	24.576000	XC1558CT-ND	3.45	3.11	2.59	2.07	XC1558TR-ND	1725.00	ECS-245.7-8-36CKM	
100	8pF	25.000000	XC1559CT-ND	3.45	3.11	2.59	2.07	XC1559TR-ND	1725.00	ECS-250-8-36CKM	
100	8pF	26.000000	XC1560CT-ND	3.45	3.11	2.59	2.07	XC1560TR-ND	1725.00	ECS-260-8-36CKM	
100	8pF	27.000000	XC1561CT-ND	3.45	3.11	2.59	2.07	XC1561TR-ND	1725.00	ECS-270-8-36CKM	
100	8pF	30.000000	XC1562CT-ND	3.45	3.11	2.59	2.07	XC1562TR-ND	1725.00	ECS-300-8-36CKM	
100	8pF	32.000000	XC1563CT-ND	3.45	3.11	2.59	2.07	XC1563TR-ND	1725.00	ECS-320-8-36CKM	
100	8pF	36.000000	XC1564CT-ND	3.45	3.11	2.59	2.07	XC1564TR-ND	1725.00	ECS-360-8-36CKM	
100	8pF	40.000000	XC1565CT-ND	3.45	3.11	2.59	2.07	XC1565TR-ND	1725.00	ECS-400-8-36CKM	
100	8pF	48.000000	XC1566CT-ND	3.45	3.11	2.59	2.07	XC1566TR-ND	1725.00	ECS-480-8-36CKM	
100	8pF	80.000000	XC1567CT-ND	5.37	4.84	4.03	3.23	XC1567TR-ND	2685.00	ECS-800-8-36CKM	
ECX-1637 for Bluetooth™ and Zigbee Applications, ±10±10, -20°C ~ 70°C, 2.0 x 1.6 x .45mm											
100	8pF	24.000000	XC1543CT-ND	3.87	3.49	2.91	2.33	XC1543TR-ND	1935.00	ECS-240-8-37CKM	
100	8pF	26.000000	XC1545CT-ND	3.87	3.49	2.91	2.33	XC1545TR-ND	1935.00	ECS-260-8-37CKM	
100	8pF	27.000000	XC1546CT-ND	3.87	3.49	2.91	2.33	XC1546TR-ND	1935.00	ECS-270-8-37CKM	
100	8pF	32.000000	XC1547CT-ND	3.87	3.49	2.91	2.33	XC1547TR-ND	1935.00	ECS-320-8-37CKM	
100	8pF	40.000000	XC1549CT-ND	3.87	3.49	2.91	2.33	XC1549TR-ND	1935.00	ECS-400-8-37CKM	

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32.768kHz Crystals and Oscillators

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Pin Connection

1	Tri-State
2	Ground
3	Output
4	VDD

Dimensions (mm)

Man. Part Number	L	W	H
ECS-327SMO	6.5	4.0	2.0
ECS-327KO	4.0	2.5	0.8

Dimensions (mm)

Man. Part Number	L	D	LS
ECS-3X8	8.2	3.1	1.1
ECS-3X8X	8.2	3.1	1.1
ECS-327-12.5-13	6.2	2.1	0.7
ECS-327-12.5-13X	6.2	2.1	0.7
ECS-327-8-14	5.1	1.5	0.45
ECS-327-8-14X	5.1	1.5	0.45

Fig.	ESR Maximum (Ω)	Load Capacitance (pF)	Digi-Key Part No.	Cut Tape Price Each				Digi-Key Part No.	Tape and Reel		ECS Part No.
				1	10	100			Qty.	Pricing	
Surface Mount Crystals											
1	50k	6.0	XC746CT-ND	1.08	.90	.72	—	XC746TR-ND	3,000	560.00/M	ECS-327-6-17-TR
	50k	6.0	XC1307CT-ND◆	1.08	.90	.72	—	XC1307TR-ND◆	3,000	560.00/M	ECS-327-6-17X-TR
	50k	12.5	XC488CT-ND	1.08	.90	.72	—	XC488TR-ND	3,000	560.00/M	ECS-327-12.5-17-TR
	50k	12.5	XC1195CT-ND◆	1.08	.90	.72	—	XC1195TR-ND◆	3,000	560.00/M	ECS-327-12.5-17X-TR
2	65k	12.5	XC1616CT-ND◆	1.32	1.19	.99	—	XC1616TR-ND◆	3,000	660.00/M	ECS-327-12.5-38
3	50k	12.5	XC1085CT-ND◆	4.47	4.03	3.36	—	—	—	—	ECS-327-12.5-32-TR
4	70k	12.5	XC1617CT-ND◆	1.77	1.60	1.33	—	XC1617TR-ND◆	3,000	885.00/M	ECS-327-12.5-34B
Surface Mount Oscillators — RoHS Compliant											
5	—	—	XC777CT-ND	6.74	5.52	4.90	—	XC777TR-ND	2,000	3430.00/M	ECS-327SMO-TR
	—	—	XC1489CT-ND	8.97	8.08	6.73	—	XC1489TR-ND	1,000	4485.00	ECS-327KO-TR
Cylinder Type Crystals											
6	35k	12.5	X801-ND†	.30	.27	.22	—	—	—	—	ECS-3X8
	35k	12.5	X1123-ND†◆	.30	.27	.22	—	—	—	—	ECS-3X8X
	35k	12.5	X802-ND†	.30	.27	.22	—	—	—	—	ECS-327-12.5-13
	35k	12.5	X1124-ND†◆	.30	.27	.22	—	—	—	—	ECS-327-12.5-13X
	40k	8.0	X803-ND†	2.63	2.37	1.89	—	—	—	—	ECS-327-8-14
	40k	8.0	X1125-ND†◆	.63	.57	.45	—	—	—	—	ECS-327-8-14X

◆ RoHS Compliant † Bulk

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.

More Product Available Online: www.digikey.com