



SYNTON-TECH CORPORATION

FIXED INDUCTORS

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1. FEATURES

- Conformal Coated Inductors.
- Special Magnetic Core Structure Contributes To High Q And Self-Resonant Frequencies (S.R.F.).
- Treated With Epoxy Resin Coating Makes It High Reliability.
- Wide Inductance Range.
- Ideal For Auto Insertion.

2. CHARACTERISTICS

(1) Currents Rating

Based On Temperature Rise Not To Exceed 20°C

(2) Operating Temperature

-20°C To 80°C

(3) Dielectric With Standing Voltage

250 V r.m.s.

(4) Moisture & Heat Resist

▲ L/L ≤ 5% ; ▲ Q/Q ≤ 20%

(5) Test Equipment

L & Q : HP 4285A Precision Q Meter

DCR : Milli-Ohm Meter

SRF : HM9461 L-SRF Meter

APPROVED	CHECKED	DESIGNED	REMARK	DOCUMENT NO.
Carol	May	Chen		0801010118

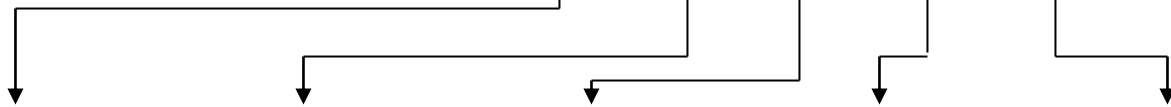
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3. EXPLANATIONS OF ORDERING CODE

DESCRIPTION : EC24 0307 10% 10uH

SYNTON CODE : EC 24 K 100 TR



<u>TYPE</u>	<u>STYLE</u>	<u>TOLERANCE</u>	<u>INDUCTANCE</u>	<u>PACKAGE</u>
<p>FIXED INDUCTOR</p> <p>Epoxy Coated (EC TYPE)</p>	<p>22: (0204) 24: (0307) 36: (0410) 38: (0412) 46: (0510)</p> <p>(Please see detail of Figure1)</p>	<p>J : ±5% K : ±10% M : ±20%</p>	<p><u>VALUE</u></p> <p>3 Digits : 3R3 : 3.3uH 100 : 10uH 101 : 100uH</p> <p>(Please see detail of Figure6)</p>	<p>TR=Tape Reel T=Tape Box B=Bulk</p> <p>(Please see detail of Figure4 & 5)</p>

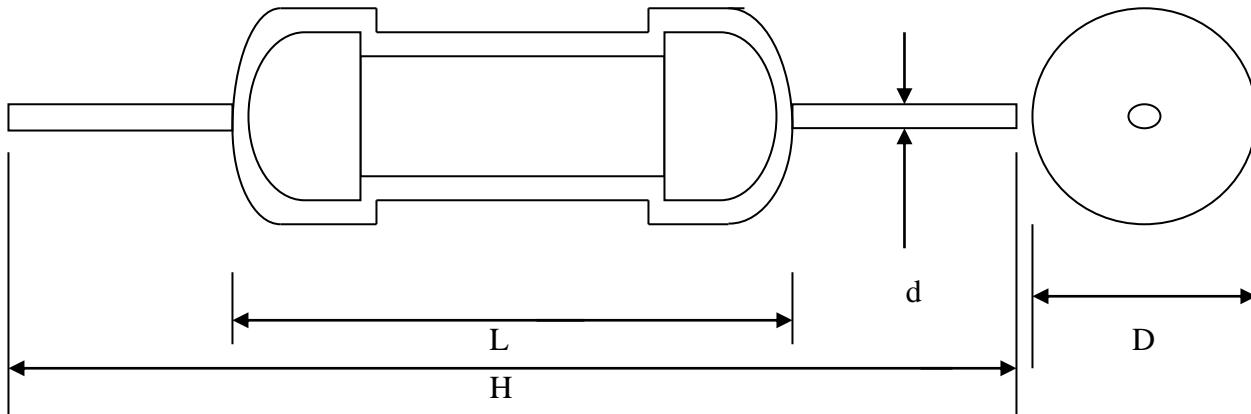


4. INDUCTANCE AND RATED CURRENT RANGES

TYPE	INDUCTANCE RANGE	RATED DC CURRENT
EC22 (0204)	0.1uH ~ 100UH	700mA ~ 20mA
EC24 (0307)	0.1uH ~ 1.0MH	700mA ~ 60mA
EC36 (0410)	0.1uH ~ 1.0MH	900mA ~ 100mA
EC38 (0412)	1.0uH ~ 10.0MH	3.0A ~ 30mA
EC46 (0510)	1.2MH ~ 33.0MH	110mA ~ 20mA

Figure2

5. DIMENSIONS



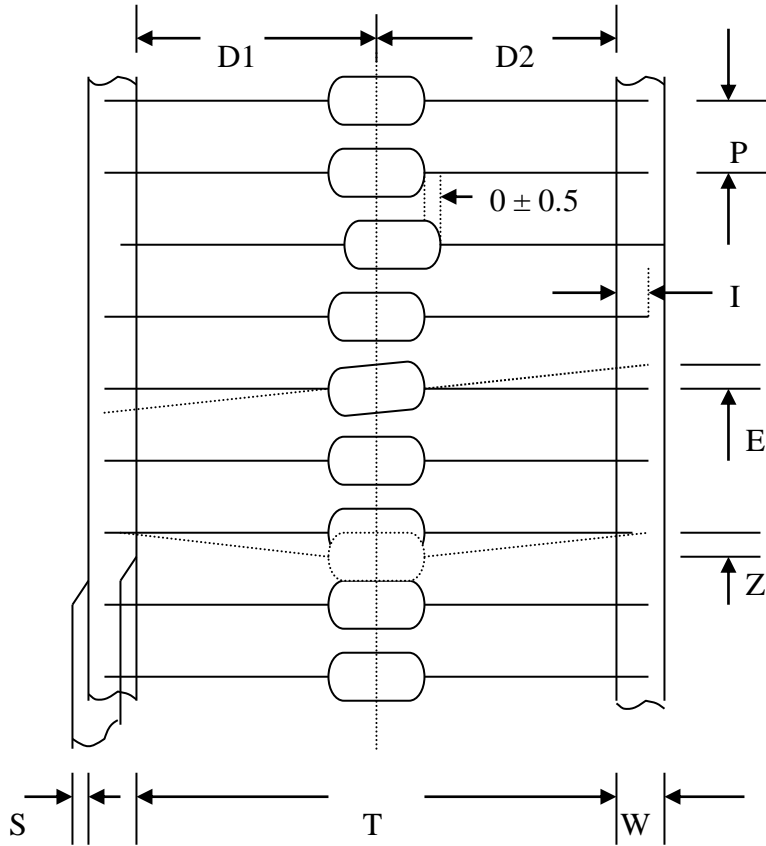
Unit: m/m

TYPE	L	D	H	d
EC22 (0204)	4.0 max	2.8 max	62.0 ± 2.0	0.50 ± 0.05
EC24 (0307)	7.6 max	3.0 max	62.0 ± 2.0	0.55 ± 0.05
EC36 (0410)	10.5 max	4.0 max	62.0 ± 2.0	0.65 ± 0.05
EC38 (0412)	12.7 max	4.2 max	62.0 ± 2.0	0.65 ± 0.05
EC46 (0510)	12.0 max	5.0 max	62.0 ± 2.0	0.65 ± 0.05

Figure2



TAPE DIMENSION



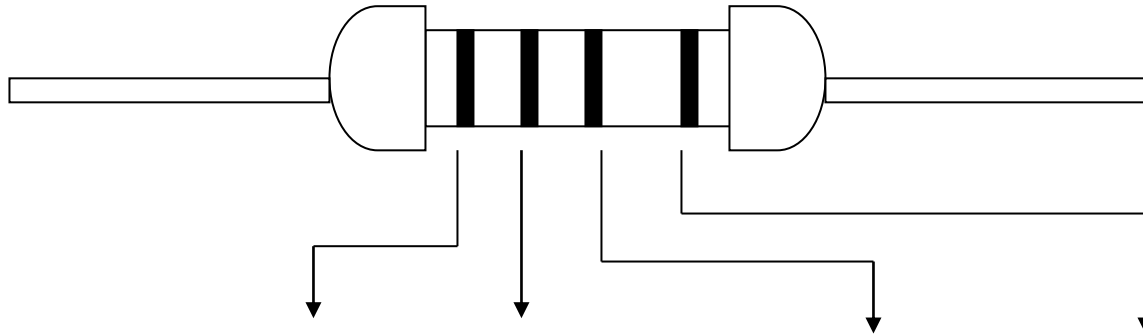
Unit:m/m

TYPE	SIZE	T	P ± 0.5	W ± 0.5	D1,D2 ± 1	E Max.	Z Max.	S Max.	I Min.
EC22 (0204)	T-52	52 \pm 2.0	5	6	26	1	1.2	1	3.2
EC24 (0307)	T-52	52 \pm 2.0	5	6	26	1	1.2	1	3.2
EC36 (0410)	T-52	52 \pm 2.0	5	6	26	1	1.2	1	3.2
EC38 (0412)	T-52	52 \pm 2.0	5	6	26	1	1.2	1	3.2
EC46 (0510)	T-52	52 \pm 2.0	5	6	26	1	1.2	1	3.2

Figure3



6. COLOR CODING



Color	1st, 2nd (Significant Figure)		3rd (Multiplier)	4th (Tolerance)
Black	0	0	10^0	M (±20%)
Brown	1	1	10^1	—
Red	2	2	10^2	—
Orange	3	3	10^3	—
Yellow	4	4	10^4	—
Green	5	5	10^5	—
Blue	6	6	10^6	—
Violet	7	7	10^7	—
Gray	8	8	10^8	—
White	9	9	10^9	—
Gold	—	—	10^{-1}	J (±5%)
Silver	—	—	10^{-2}	K (±10%)

TOLERANCE : (NOT MARKED FOR EC22)

Figure4



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EC22 TYPE

PART NO.	INDUCTANCE (μ H)	QUALITY FACTOR (MIN)	TESTING FREQ. (MHz)	S.R.F. (MHz) MIN	DC RESISTANCE (Ω) MAX	RATED DC CURRENT (mA) MAX
EC22MR10	0.10	50	25.2	250	0.030	700
EC22MR12	0.12	55	25.2	230	0.035	660
EC22MR15	0.15	55	25.2	200	0.040	620
EC22MR18	0.18	55	25.2	180	0.045	600
EC22MR22	0.22	55	25.2	160	0.050	400
EC22MR27	0.27	50	25.2	150	0.065	380
EC22MR33	0.33	50	25.2	150	0.075	370
EC22MR39	0.39	50	25.2	150	0.080	350
EC22MR47	0.47	60	25.2	150	0.085	330
EC22MR56	0.56	60	25.2	150	0.090	320
EC22MR68	0.68	50	25.2	120	0.10	310
EC22MR82	0.82	50	25.2	110	0.15	290
EC22K1R0	1.0	50	25.2	110	0.22	270
EC22K1R2	1.2	40	7.96	100	0.30	260
EC22K1R5	1.5	40	7.96	80	0.35	250
EC22K1R8	1.8	40	7.96	65	0.45	240
EC22K2R2	2.2	40	7.96	55	0.55	230
EC22K2R7	2.7	40	7.96	50	0.60	220
EC22K3R3	3.3	40	7.96	42	0.65	210
EC22K3R9	3.9	45	7.96	38	0.85	200
EC22K4R7	4.7	45	7.96	34	1.00	190
EC22K5R6	5.6	45	7.96	32	1.15	180
EC22K6R8	6.8	40	7.96	30	1.20	175
EC22K8R2	8.2	40	7.96	26	1.25	165
EC22K100	10	40	7.96	24	1.5	160
EC22K120	12	50	2.52	22	2.2	150
EC22K150	15	50	2.52	20	2.5	145
EC22K180	18	50	2.52	18	2.8	140
EC22K220	22	50	2.52	17	3.0	130
EC22K270	27	55	2.52	14	3.5	80
EC22K330	33	55	2.52	14	3.8	76
EC22K390	39	50	2.52	13	4.2	74
EC22K470	47	50	2.52	12	5.8	70
EC22K560	56	50	2.52	11	6.4	68
EC22K680	68	50	2.52	10	7.2	64
EC22K820	82	50	2.52	9.5	8.5	46
EC22K101	100	50	2.52	9.0	11	44



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EC24 TYPE

PART NO.	INDUCTANCE (μ H)	QUALITY FACTOR (MIN)	TESTING FREQ. (MHz)	S.R.F. (MHz) MIN	DC RESISTANCE (Ω) MAX	RATED DC CURRENT (mA) MAX
EC24MR10	0.10	40	25.2	470	0.08	700
EC24MR12	0.12	40	25.5	450	0.08	700
EC24MR15	0.15	40	25.2	430	0.09	700
EC24MR18	0.18	40	25.5	410	0.10	700
EC24MR22	0.22	40	25.2	380	0.12	700
EC24MR27	0.27	40	25.5	360	0.15	680
EC24MR33	0.33	40	25.2	350	0.16	680
EC24MR39	0.39	40	25.5	320	0.18	680
EC24MR47	0.47	40	25.2	300	0.26	650
EC24MR56	0.56	40	25.5	280	0.38	500
EC24MR68	0.68	40	25.2	250	0.42	500
EC24MR82	0.82	40	25.5	200	0.55	450
EC24K1R0	1.0	65	25.2	180	0.12	700
EC24K1R2	1.2	50	7.96	165	0.18	740
EC24K1R5	1.5	50	7.96	150	0.20	700
EC24K1R8	1.8	70	7.96	125	0.23	655
EC24K2R2	2.2	50	7.96	110	0.25	630
EC24K2R7	2.7	60	7.96	95	0.28	595
EC24K3R3	3.3	60	7.96	75	0.30	575
EC24K3R9	3.9	60	7.96	65	0.32	555
EC24K4R7	4.7	50	7.96	50	0.35	530
EC24K5R6	5.6	50	7.96	40	0.40	500
EC24K6R8	6.8	50	7.96	30	0.45	470
EC24K8R2	8.2	50	7.96	28	0.55	425
EC24K100	10	50	7.96	22	0.72	370
EC24K120	12	50	2.52	20	0.80	350
EC24K150	15	50	2.52	16	0.88	335
EC24K180	18	50	2.52	15	1.00	315
EC24K220	22	60	2.52	13	1.20	285
EC24K270	27	60	2.52	11	1.35	270
EC24K330	33	50	2.52	10	1.50	255
EC24K390	39	50	2.52	9.5	1.70	240
EC24K470	47	50	2.52	8.5	2.30	205
EC24K560	56	55	2.52	7.5	2.60	195
EC24K680	68	55	2.52	6.5	2.90	185
EC24K820	82	55	2.52	6.0	3.20	175
EC24K101	100	60	2.52	5.5	3.50	165
EC24K121	120	75	0.796	5.4	3.80	160
EC24K151	150	75	0.796	4.75	4.40	150



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EC24K181	180	75	0.796	4.35	5.00	140
EC24K221	220	75	0.796	4.0	5.70	130
EC24K271	270	70	0.796	3.7	6.50	120
EC24K331	330	70	0.796	3.4	9.50	100
EC24K391	390	70	0.796	2.8	10.5	95
EC24K471	470	70	0.796	2.55	12.5	90
EC24K561	560	70	0.796	2.35	14.5	85
EC24K681	680	70	0.796	2.0	18.0	75
EC24K821	820	60	0.796	1.6	23.7	65
EC24K102	1000	60	0.796	1.2	30.0	60



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EC36 TYPE

PART NO.	INDUCTANCE (μ H)	QUALITY FACTOR (MIN)	TESTING FREQ. (MHz)	S.R.F. (MHz) MIN	DC RESISTANCE (Ω) MAX	RATED DC CURRENT (mA) MAX
EC36KR10	0.10	50	25.2	470	0.04	900
EC36KR12	0.12	50	25.5	450	0.06	900
EC36KR15	0.15	50	25.2	430	0.07	890
EC36KR18	0.18	50	25.5	410	0.07	890
EC36KR22	0.22	50	25.2	380	0.08	880
EC36KR27	0.27	50	25.5	340	0.09	800
EC36KR33	0.33	50	25.2	300	0.10	750
EC36KR39	0.39	50	25.5	280	0.12	680
EC36KR47	0.47	50	25.2	250	0.16	650
EC36KR56	0.56	50	25.5	230	0.18	600
EC36KR68	0.68	50	25.2	210	0.22	550
EC36KR82	0.82	50	25.5	172	0.24	980
EC36K1R0	1.0	50	25.2	157	0.09	920
EC36K1R2	1.2	50	7.96	144	0.10	880
EC36K1R5	1.5	55	7.96	131	0.23	830
EC36K1R8	1.8	60	7.96	121	0.25	790
EC36K2R2	202	80	7.96	110	0.28	750
EC36K2R7	2.7	85	7.96	100	0.30	720
EC36K3R3	3.3	90	7.96	94	0.34	670
EC36K3R9	3.9	90	7.96	86	0.37	640
EC36K4R7	4.7	90	7.96	80	0.39	620
EC36K5R6	5.6	80	7.96	74	0.43	590
EC36K6R8	6.8	80	7.96	58	0.48	550
EC36K8R2	8.2	85	7.96	53	0.52	530
EC36K100	10	85	7.96	45	0.58	500
EC36K120	12	75	2.52	30	0.63	480
EC36K150	15	75	2.52	20	0.72	460
EC36K180	18	70	2.52	14	0.77	430
EC36K220	22	65	2.52	9.9	0.84	410
EC36K270	27	65	2.52	7.6	0.94	390
EC36K330	33	55	2.52	6.3	1.03	370
EC36K390	39	55	2.52	6.3	1.12	350
EC36K470	47	45	2.52	6.3	1.22	340
EC36K560	56	45	2.52	6.2	1.34	320
EC36K680	68	40	2.52	5.7	1.47	305
EC36K820	82	35	2.52	5.3	1.62	290
EC36K101	100	30	2.52	4.8	1.80	275
EC36K121	120	70	0.796	3.8	3.70	185
EC36K151	150	80	0.796	3.5	4.20	175



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EC36K181	180	80	0.796	3.3	4.60	165
EC36K221	220	70	0.796	3.0	5.10	155
EC36K271	270	70	0.796	2.8	5.80	145
EC36K331	330	65	0.796	2.6	6.40	137
EC36K391	390	65	0.796	2.4	7.00	133
EC36K471	470	60	0.796	2.25	7.70	126
EC36K561	560	60	0.796	2.1	8.50	120
EC36K681	680	55	0.796	1.95	9.40	113
EC36K821	820	55	0.796	1.85	12.0	100
EC36K102	1000	50	0.252	1.40	17.0	100
EC36K222	2200	40	0.252	1.20	50.0	100



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EC38 TYPE

PART NO.	INDUCTANCE (μ H)	TESTING FREQ. (MHz)	S.R.F. (MHz) MIN	DC RESISTANCE (Ω) MAX	RATED CURRENT(mA)	
					I sat MAX.	I rms MAX.
EC38M1R0	1.0	7.96MHz	190	0.018	3000	3300
EC38M1R2	1.2	7.96MHz	170	0.019	2700	3200
EC38M1R5	1.5	7.96MHz	160	0.020	2500	3100
EC38M1R8	1.8	7.96MHz	150	0.023	2100	2900
EC38M2R2	2.2	7.96MHz	130	0.031	1000	2600
EC38M2R7	2.7	7.96MHz	120	0.033	1900	2500
EC38M3R3	3.3	7.96MHz	110	0.054	1700	1900
EC38M3R9	3.9	7.96MHz	100	0.060	1500	1800
EC38K4R7	4.7	7.96MHz	86	0.068	1400	1700
EC38K5R6	5.6	7.96MHz	64	0.074	1300	1600
EC38K6R8	6.8	7.96MHz	44	0.080	1200	1600
EC38K8R2	8.2	7.96MHz	32	0.087	1100	1500
EC38K100	10	1kHz	25	0.095	970	1500
EC38K120	12	1kHz	17	0.110	880	1400
EC38K150	15	1kHz	13	0.150	790	1200
EC38K180	18	1kHz	10	0.16	710	1100
EC38K220	22	1kHz	8.40	0.19	640	1000
EC38K270	27	1kHz	8.00	0.22	580	950
EC38K330	33	1kHz	7.60	0.24	530	910
EC38K390	39	1kHz	7.10	0.26	480	880
EC38K470	47	1kHz	6.00	0.35	430	760
EC38K560	56	1kHz	5.80	0.47	400	650
EC38K680	68	1kHz	4.30	0.53	370	610
EC38K820	82	1kHz	4.10	0.60	330	580
EC38K101	100	1kHz	3.90	0.67	300	550
EC38K121	120	1kHz	3.60	0.90	270	470
EC38K151	150	1kHz	3.20	1.20	250	410
EC38K181	180	1kHz	2.80	1.40	220	380
EC38K221	220	1kHz	2.30	1.90	200	320
EC38K271	270	1kHz	2.10	2.10	180	310
EC38K331	330	1kHz	1.90	2.40	170	290
EC38K391	390	1kHz	1.70	3.00	150	260
EC38K471	470	1kHz	1.40	3.40	140	240
EC38K561	560	1kHz	1.30	4.70	130	210
EC38K681	680	1kHz	1.20	6.40	110	180
EC38K821	820	1kHz	1.10	7.10	100	170
EC38K102	1000	1kHz	1.00	7.90	95	160
EC38K122	1200	1kHz	0.94	9.00	87	150
EC38K152	1500	1kHz	0.76	12.0	78	130



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EC38K182	1800	1kHz	0.72	14.0	71	120
EC38K222	2200	1kHz	0.64	19.0	64	100
EC38K272	2700	1kHz	0.56	25.0	58	90
EC38K332	3300	1kHz	0.53	29.0	52	83
EC38K392	3900	1kHz	0.48	34.0	48	77
EC38K472	4700	1kHz	0.45	37.0	44	74
EC38K562	5600	1kHz	0.40	50.0	40	63
EC38K682	6800	1kHz	0.36	58.0	36	59
EC38K822	8200	1kHz	0.29	68.0	33	54
EC38K103	10000	1kHz	0.27	75.0	30	52



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EC46 TYPE

PART NO.	INDUCTANCE (MH)	QUALITY FACTOR (MIN)	TESTING FREQ. (MHz)	S.R.F. (MHz) MIN	DC RESISTANCE (Ω) MAX	RATED DC CURRENT (mA) MAX
EC46K122	1.2	80	252	1.3	9	110
EC46K152	1.5	80	252	1.2	10	100
EC46K182	1.8	80	252	1.2	11	90
EC46K222	2.2	80	252	1.1	14	80
EC46K272	2.7	80	252	0.85	18	75
EC46K332	3.3	80	252	0.74	22	65
EC46K392	3.9	80	252	0.70	26	60
EC46K472	4.7	80	252	0.66	30	55
EC46K562	5.6	70	252	0.64	34	50
EC46K682	6.8	70	252	0.58	45	45
EC46K822	8.2	50	252	0.50	60	40
EC46K103	10	50	79.6	0.48	70	38
EC46K123	12	50	79.6	0.46	82	35
EC46K153	15	50	79.6	0.40	89	32
EC46K183	18	40	79.6	0.37	140	28
EC46K223	22	40	79.6	0.33	170	25
EC46K253	25	40	79.6	0.28	185	24
EC46K273	27	40	79.6	0.26	210	23
EC46K303	30	40	79.6	0.25	240	22
EC46K333	33	40	79.6	0.24	250	20

J \pm 5% ; K \pm 10% ; M \pm 20%
(Customer's Specifications Are Welcome)