

Type 3650 Series

Key Features

- Choice of Four Package Sizes
- Wire Wound Construction
- Smooth Top Aids Placement
- 1.0NH to 4.7mH Value Range
- Laboratory Design Kits Available
- High Q Factor
- High S.R.F.
- Standard Tolerances



The 3650 Series is a new concept from TE Connectivity, a range of inductors in values from 1.0 nanohenry to 4.7 microhenries. The 3650 is available in four package sizes and is designed for automatic placement.

Characteristics - Electrical Type 36501E Series - 0402 Package

Inductance Code	Inductance (nH) @ 250MHz	Tolerance (%)	Q Min.	S.R.F. Min. (GHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	900MHz		1.7GHz	
							L Typ.	Q Typ.	L Typ.	Q Typ.
1N0	1.0	10	16	12.7	0.045	1360	1.02	77	1.02	69
1N9	1.9	10,5	16	11.3	0.070	1040	1.72	68	1.74	82
2N0	2.0	10,5	16	11.1	0.070	1040	1.93	54	1.93	75
2N2	2.2	10,5	19	10.8	0.070	960	2.19	59	2.23	100
2N4	2.4	10,5	15	10.5	0.070	790	2.24	51	2.27	68
2N7	2.7	10,5	16	10.4	0.120	640	2.23	42	2.25	61
3N3	3.3	10,5,2	19	7.00	0.066	840	3.10	65	3.12	87
3N6	3.6	10,5,2	19	6.80	0.066	840	3.56	45	3.62	71
3N9	3.9	10,5,2	19	5.80	0.066	840	3.89	50	4.00	75
4N3	4.3	10,5,2	18	6.00	0.091	700	4.19	47	4.30	71
4N7	4.7	10,5,2	15	4.70	0.130	640	4.55	48	4.68	68
5N1	5.1	10,5,2	20	4.80	0.083	800	5.15	56	5.25	82
5N6	5.6	10,5,2	20	4.80	0.083	760	5.16	54	5.28	81
6N2	6.2	10,5,2	20	4.80	0.083	760	6.16	52	6.37	76
6N8	6.8	10,5,2	20	4.80	0.083	680	6.56	63	6.93	78
7N5	7.5	10,5,2	22	4.80	0.104	680	7.91	60	8.22	88
8N2	8.2	10,5,2	22	4.40	0.104	680	8.50	57	8.85	84
8N7	8.7	10,5,2	18	4.10	0.200	480	8.78	54	9.21	73
9N0	9.0	10,5,2	22	4.16	0.104	680	9.07	62	9.53	78
9N5	9.5	10,5,2	18	4.00	0.200	480	9.42	54	9.98	69
10N	10	10,5,2	21	3.90	0.195	480	9.8	50	10.1	67
11N	11	10,5,2	24	3.68	0.120	640	10.7	52	11.2	78
12N	12	10,5,2	24	3.60	0.120	640	11.9	53	12.7	71
13N	13	10,5,2	24	3.45	0.210	440	13.4	51	14.6	57
15N	15	10,5,2	24	3.28	0.172	560	14.6	55	15.5	77
16N	16	10,5,2	24	3.10	0.220	560	16.6	46	18.8	47
18N	18	10,5,2	24	3.10	0.230	420	18.3	57	20.28	62
19N	19	10,5,2	24	3.04	0.202	480	19.1	50	21.1	67
20N	20	10,5,2	25	3.00	0.250	420	20.7	52	23.66	53
22N	22	10,5,2	25	2.80	0.300	400	23.2	53	26.75	53
23N	23	10,5,2	22	2.72	0.300	400	23.8	49	26.9	64
24N	24	10,5,2	25	2.70	0.300	400	25.1	51	29.5	50
27N	27	10,5,2	24	2.48	0.300	400	28.7	49	33.5	63

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Characteristics - Electrical - Type 36501E Series - 0402 Package (cont.)

Inductance Code	Inductance (nH) @ 250MHz	Tolerance (%)	Q Min.	S.R.F. Min. (GHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	900MHz		1.7GHz	
							L Typ.	Q Typ.	L Typ.	Q Typ.
30N	30	10,5,2	25	2.35	0.350	400	31.1	46	38.5	39
33N	33	10,5,2	24	2.35	0.350	400	34.9	31	41.74	32
36N	36	10,5,2	24	2.32	0.440	320	39.5	44	48.4	53
39N	39	10,5,2	25	2.10	0.550	200	41.7	47	50.23	45
40N	40	10,5,2	24	2.24	0.440	320	39.0	44	47.4	33
43N	43	10,5,2	25	2.03	0.810	100	45.8	46	61.55	34
47N	47	10,5,2	20	2.10	0.830	150	50.0	38	-	-
51N	51	10,5,2	25	1.75	0.820	100	-	-	-	-
56N	56	10,5,2	22	1.76	0.970	100	-	-	-	-
68N	68	10,5,2	22	1.62	1.120	100	-	-	-	-

Characteristics - Electrical - Type 36501J Series - 0603 Package

Inductance Code	Inductance (nH) @ 250MHz	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	900MHz		1.7GHz		Colour Code
							L Typ.	Q Typ.	L Typ.	Q Typ.	
1N6	1.6	10,5	16	12500	0.040	700	1.53	35	1.58	55	Blue
1N8	1.8	10,5	16	12500	0.045	700	1.63	35	1.66	50	Black
2N2	2.2	10,5	20	6000	0.100	700	2.18	41	2.20	64	White
3N3	3.3	10,5,2	22	>6000	0.080	700	3.35	47	3.40	65	Red
3N6	3.6	10,5,2	22	5800	0.063	700	3.53	49	3.58	65	Violet
3N9	3.9	10,5,2	22	>6000	0.080	700	3.95	49	3.96	67	Brown
4N3	4.3	10,5,2	22	5800	0.063	700	4.32	49	4.43	67	Orange
4N7	4.7	10,5,2	20	5800	0.120	700	4.65	53	4.80	67	Violet
5N1	5.1	10,5,2	20	5800	0.160	700	5.13	47	5.36	56	Green
5N6	5.6	10,5,2	20	5800	0.170	700	5.53	56	5.86	77	Yellow
6N8	6.8	10,5,2	27	5800	0.110	700	6.75	60	7.10	81	Red
7N5	7.5	10,5,2	27	4800	0.110	700	7.39	62	7.71	81	Brown
8N2	8.2	10,5,2	27	4800	0.110	700	8.25	64	8.40	81	Green
8N7	8.7	10,5,2	27	4800	0.110	700	8.84	62	9.38	58	Yellow
9N5	9.5	10,5,2	27	4800	0.130	700	9.64	59	10.5	61	Blue
10N	10.0	10,5,2	31	4800	0.130	700	10.0	66	10.6	83	Orange
11N	11.0	10,5,2	31	4000	0.086	700	11.3	53	12.1	56	Grey
12N	12.0	10,5,2	35	4000	0.130	700	12.3	72	13.5	83	Yellow
15N	15.0	10,5,2	35	4000	0.170	700	15.4	64	16.8	89	Green
16N	16.0	10,5,2	35	3300	0.110	700	16.5	55	18.0	52	White
18N	18.0	10,5,2	35	3100	0.170	700	18.7	70	21.4	69	Blue
22N	22.0	10,5,2	38	3000	0.190	700	22.8	73	26.1	71	Violet
23N	23.0	10,5,2	38	2850	0.190	700	24.1	71	28.0	71	Orange
24N	24.0	10,5,2	36	2800	0.130	700	25.7	45	30.9	40	Black
27N	27.0	10,5,2	40	2800	0.220	600	29.2	74	34.6	65	Grey
30N	30.0	10,5,2	37	2800	0.150	600	31.4	47	39.8	28	Brown
33N	33.0	10,5,2	40	2300	0.220	600	36.0	67	49.5	42	White
36N	36.0	10,5,2	37	2300	0.250	600	39.1	47	48.9	24	Red
39N	39.0	10,5,2	40	2200	0.250	600	42.7	60	60.2	40	Black
43N	43.0	10,5,2	38	2000	0.280	600	46.9	44	60.3	21	Orange
47N	47.0	10,5,2	38	2000	0.280	600	52.2	62	77.2	35	Brown
51N	51.0	10,5,2	35	1900	0.280	600	55.5	69	82.2	34	Blue
56N	56.0	10,5,2	38	1900	0.310	600	62.5	56	97.0	26	Red
68N	68.0	10,5,2	37	1700	0.340	600	80.5	54	168.0	21	Orange
72N	72.0	10,5,2	34	1700	0.490	400	82.0	53	135.0	20	Yellow
82N	82.0	10,5,2	34	1700	0.540	400	96.2	54	177.0	21	Green
R10	100	10,5,2	34	1400	0.580	400	124	49	-	-	Blue
R11	110	10,5,2	32	1350	0.610	300	138	43	-	-	Violet
R12	120	10,5,2	32	1300	0.650	300	166	39	-	-	Grey
R15	150	10,5,2	32	1300	0.950	280	230	25	-	-	White
R18	180	10,5,2	25	1250	1.400	250	305	22	-	-	Black
R22	220	10,5,2	25	1200	1.600	250	-	-	-	-	Brown
R26	260	10,5,2	25	1000	2.000	200	-	-	-	-	Orange
R27	270	10,5,2	25	900	2.100	200	-	-	-	-	Red
R33	330	10,5,2	25	900	3.800	100	-	-	-	-	Blue
R39	390	10,5,2	25	900	4.350	100	-	-	-	-	Yellow

Type 3650 Series

Characteristics - Electrical Type 36502A Series - 0805 Package

Inductance Code	Inductance (nH) @ 250MHz	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	Colour Code
2N8	2.8	10,5	80 @ 1500MHz	7900	0.06	800	Grey
3N0	3.0	10,5	65 @ 1500MHz	7900	0.06	800	White
3N3	3.3	10,5	50 @ 1500MHz	6000	0.08	600	Black
5N6	5.6	10,5	65 @ 1000MHz	5500	0.08	600	Orange
6N8	6.8	10,5	50 @ 1000MHz	5500	0.11	600	Brown
7N5	7.5	10,5	50 @ 1000MHz	4500	0.14	600	Green
8N2	8.2	10,5	50 @ 1000MHz	4700	0.12	600	Red
8N7	8.7	10,5	50 @ 1000MHz	3900	0.21	400	White
10N	10.0	10,5,2	60 @ 500MHz	4200	0.10	600	Blue
12N	12.0	10,5,2	50 @ 500MHz	4000	0.15	600	Orange
15N	15.0	10,5,2	50 @ 500MHz	3400	0.17	600	Yellow
18N	18.0	10,5,2	50 @ 500MHz	3300	0.20	600	Green
22N	22.0	10,5,2	55 @ 500MHz	2600	0.22	500	Blue
24N	24.0	10,5,2	50 @ 500MHz	2000	0.22	500	Grey
27N	27.0	10,5,2	55 @ 500MHz	2500	0.25	500	Violet
33N	33.0	10,5,2	60 @ 500MHz	2050	0.27	500	Grey
36N	36.0	10,5,2	55 @ 500MHz	1700	0.27	500	Orange
39N	39.0	10,5,2	60 @ 500MHz	2000	0.29	500	White
43N	43.0	10,5,2	60 @ 500MHz	1650	0.34	500	Yellow
47N	47.0	10,5,2	60 @ 500MHz	1650	0.31	500	Black
56N	56.0	10,5,2	60 @ 500MHz	1550	0.34	500	Brown
68N	68.0	10,5,2	60 @ 500MHz	1450	0.38	500	Red
72N	72.0	10,5,2	65 @ 500MHz	1400	0.40	500	Green
82N	82.0	10,5,2	65 @ 500MHz	1300	0.42	400	Orange
91N	91.0	10,5,2	65 @ 500MHz	1200	0.48	400	Black
R10	100	10,5,2	65 @ 500MHz	1200	0.46	400	Yellow
R11	110	10,5,2	50 @ 250MHz	1000	0.48	400	Brown
R12	120	10,5,2	50 @ 250MHz	1100	0.51	400	Green
R15	150	10,5,2	50 @ 250MHz	920	0.56	400	Blue
R18	180	10,5,2	50 @ 250MHz	870	0.64	400	Violet
R20	200	10,5,2	50 @ 250MHz	860	0.66	400	Orange
R22	220	10,5,2	50 @ 250MHz	850	0.70	400	Grey
R24	240	10,5,2	44 @ 250MHz	690	1.00	350	Red
R25	250	10,5,2	45 @ 250MHz	680	1.00	350	Green
R27	270	10,5,2	48 @ 250MHz	650	1.00	350	White
R30	300	10,5,2	48 @ 250MHz	620	1.20	330	Yellow
R33	330	10,5,2	48 @ 250MHz	600	1.40	310	Black
R36	360	10,5,2	48 @ 250MHz	580	1.45	300	Green
R39	390	10,5,2	48 @ 250MHz	560	1.50	290	Brown
R43	430	10,5,2	33 @ 100MHz	430	1.70	230	Blue
R47	470	10,5,2	33 @ 100MHz	375	1.70	220	Red
R56	560	10,5,2	23 @ 50MHz	340	1.90	210	Orange
R62	620	10,5,2	23 @ 50MHz	220	2.20	210	Yellow
R68	680	10,5,2	23 @ 50MHz	200	2.20	190	Green
R75	750	10,5,2	23 @ 50MHz	200	2.30	180	Blue
R82	820	10,5,2	23 @ 50MHz	200	2.35	180	Violet
1R0	1000	10,5,2	20 @ 50MHz	100	2.50	170	Grey
1R2	1200	10,5,2	18 @ 25MHz	100	2.50	170	White
1R5	1500	10,5,2	16 @ 25MHz	100	2.50	170	Black
1R8	1800	10,5,2	16 @ 7.9MHz	80	2.50	170	Brown
2R2	2200	10,5,2	16 @ 7.9MHz	60	2.70	160	Red
2R7	2700	10,5,2	16 @ 7.9MHz	50	2.95	150	Orange

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Characteristics - Electrical Type 36502C Series - 1008 Package

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)
5N6	5.6 @ 50MHz	10,5	50 @ 1500MHz	4000	0.15	1000
10N	10 @ 50MHz	10,5,2	50 @ 500MHz	4100	0.08	1000
12N	12 @ 50MHz	10,5,2	50 @ 500MHz	3300	0.09	1000
15N	15 @ 50MHz	10,5,2	50 @ 500MHz	2500	0.11	1000
18N	18 @ 50MHz	10,5,2	50 @ 350MHz	2400	0.12	1000
22N	22 @ 50MHz	10,5,2	55 @ 350MHz	2400	0.12	1000
24N	24 @ 50MHz	10,5,2	55 @ 350MHz	1900	0.12	1000
27N	27 @ 50MHz	10,5,2	55 @ 350MHz	1600	0.13	1000
33N	33 @ 50MHz	10,5,2	60 @ 350MHz	1600	0.14	1000
39N	39 @ 50MHz	10,5,2	60 @ 350MHz	1500	0.15	1000
47N	47 @ 50MHz	10,5,2	65 @ 350MHz	1500	0.16	1000
56N	56 @ 50MHz	10,5,2	65 @ 350MHz	1300	0.18	1000
62N	62 @ 50MHz	10,5,2	65 @ 350MHz	1250	0.20	1000
68N	68 @ 50MHz	10,5,2	65 @ 350MHz	1300	0.20	1000
75N	75 @ 50MHz	10,5,2	60 @ 350MHz	1100	0.21	1000
82N	82 @ 50MHz	10,5,2	60 @ 350MHz	1000	0.22	1000
R10	100 @ 25MHz	10,5,2	60 @ 350MHz	1000	0.56	650
R12	120 @ 25MHz	10,5,2	60 @ 350MHz	950	0.63	650
R15	150 @ 25MHz	10,5,2	45 @ 100MHz	850	0.70	580
R18	180 @ 25MHz	10,5,2	45 @ 100MHz	750	0.77	620
R22	220 @ 25MHz	10,5,2	45 @ 100MHz	700	0.84	500
R24	240 @ 25MHz	10,5,2	45 @ 100MHz	650	0.88	500
R27	270 @ 25MHz	10,5,2	45 @ 100MHz	600	0.91	500
R30	300 @ 25MHz	10,5,2	45 @ 100MHz	585	1.00	450
R33	330 @ 25MHz	10,5,2	45 @ 100MHz	570	1.05	450
R36	360 @ 25MHz	10,5,2	45 @ 100MHz	530	1.10	470
R39	390 @ 25MHz	10,5,2	45 @ 100MHz	500	1.12	470
R43	430 @ 25MHz	10,5,2	45 @ 100MHz	480	1.15	470
R47	470 @ 25MHz	10,5,2	45 @ 100MHz	450	1.19	470
R56	560 @ 25MHz	10,5,2	45 @ 100MHz	415	1.33	400
R62	620 @ 25MHz	10,5,2	45 @ 100MHz	375	1.40	300
R68	680 @ 25MHz	10,5,2	45 @ 100MHz	375	1.47	400
R75	750 @ 25MHz	10,5,2	45 @ 100MHz	360	1.54	360
R82	820 @ 25MHz	10,5,2	45 @ 100MHz	350	1.61	400
R91	910 @ 25MHz	10,5,2	35 @ 50MHz	320	1.68	380
1R0	1000 @ 25MHz	10,5,2	35 @ 50MHz	290	1.75	370
1R2	1200 @ 7.9MHz	10,5,2	35 @ 50MHz	250	2.00	310
1R5	1500 @ 7.9MHz	10,5,2	28 @ 50MHz	200	2.30	330
1R8	1800 @ 7.9MHz	10,5,2	28 @ 50MHz	160	2.60	300
2R2	2200 @ 7.9MHz	10,5,2	28 @ 50MHz	160	2.80	280
2R7	2700 @ 7.9MHz	10,5,2	22 @ 25MHz	140	3.20	290
3R3	3300 @ 7.9MHz	10,5,2	22 @ 25MHz	110	3.40	290
3R9	3900 @ 7.9MHz	10,5,2	20 @ 25MHz	100	3.60	260
4R7	4700 @ 7.9MHz	10,5,2	20 @ 25MHz	90	4.00	260
5R6	5600 @ 7.9MHz	10,5,2	16 @ 7.96MHz	20	4.00	240
6R8	6800 @ 7.9MHz	10,5,2	15 @ 7.96MHz	40	4.90	200
8R2	8200 @ 7.9MHz	10,5,2	15 @ 7.96MHz	25	6.00	170
103	10000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	20	9.00	150
123	12000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	18	10.5	130
153	15000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	15	11.5	120

Type 3650 Series

Characteristics - Electrical Type 36512A Series - 0805 Package - Low Profile

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	Colour Code
1N8	1.8 @ 250MHz	10	55 @ 1500MHz	9400	0.03	800	Black
3N9	3.9 @ 250MHz	10,5	50 @ 1000MHz	6100	0.06	800	Brown
4N7	4.7 @ 250MHz	10,5	50 @ 1000MHz	5500	0.06	800	Red
6N8	6.8 @ 250MHz	10,5	50 @ 1000MHz	5500	0.08	800	Orange
8N2	8.2 @ 250MHz	10,5	50 @ 1000MHz	4800	0.08	800	Yellow
10N	10.0 @ 250MHz	10,5,2	55 @ 750MHz	3300	0.08	800	Green
12N	12.0 @ 250MHz	10,5,2	55 @ 750MHz	3800	0.10	800	Blue
15N	15.0 @ 250MHz	10,5,2	50 @ 500MHz	2950	0.10	800	Violet
18N	18.0 @ 250MHz	10,5,2	50 @ 500MHz	3100	0.13	800	Grey
22N	22.0 @ 250MHz	10,5,2	50 @ 500MHz	2900	0.15	800	White
27N	27.0 @ 250MHz	10,5,2	50 @ 500MHz	2450	0.23	600	Black
33N	33.0 @ 250MHz	10,5,2	50 @ 500MHz	2350	0.28	600	Brown
39N	39.0 @ 250MHz	10,5,2	50 @ 500MHz	2200	0.33	600	Red
47N	47.0 @ 200MHz	10,5,2	50 @ 500MHz	2000	0.39	600	Orange
56N	56.0 @ 200MHz	10,5,2	50 @ 500MHz	1850	0.39	500	Yellow
68N	68.0 @ 200MHz	10,5,2	50 @ 500MHz	1500	0.40	500	Green
82N	82.0 @ 150MHz	10,5,2	50 @ 500MHz	1500	0.44	500	Blue
R10	100.0 @ 150MHz	10,5,2	50 @ 500MHz	1200	0.64	400	Violet
R12	120.0 @ 150MHz	10,5,2	40 @ 250MHz	1150	0.68	300	Grey
R15	150.0 @ 150MHz	10,5,2	40 @ 250MHz	1050	0.80	300	White
1R0	1000.0 @ 25MHz	10,5,2	16 @ 50MHz	80	2.00	220	Black

Characteristics - Electrical Type 36512C Series - 1008 Package - Low Profile

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)
3N3	3.3 @ 50MHz	10,5	42 @ 1500MHz	6000	0.03	1000
3N9	3.9 @ 50MHz	10,5	42 @ 1500MHz	6000	0.08	1000
4N7	4.7 @ 50MHz	10,5	42 @ 1500MHz	6000	0.15	600
5N6	5.6 @ 50MHz	10,5	50 @ 1500MHz	5800	0.16	600
6N8	6.8 @ 50MHz	10,5	50 @ 1500MHz	5400	0.17	600
8N2	8.2 @ 50MHz	10,5	50 @ 1500MHz	5000	0.22	600
15N	15 @ 50MHz	10,5	57 @ 500MHz	3000	0.22	600
20N	20 @ 50MHz	10,5	72 @ 500MHz	2400	0.33	600
30N	30 @ 50MHz	10,5	69 @ 500MHz	2400	0.38	600
40N	40 @ 50MHz	10,5	67 @ 500MHz	2000	0.43	600
50N	50 @ 50MHz	10,5,2	72 @ 500MHz	1900	0.48	600
56N	56 @ 50MHz	10,5,2	67 @ 500MHz	1850	0.49	600
60N	60 @ 50MHz	10,5,2	75 @ 500MHz	1800	0.52	600
68N	68 @ 50MHz	10,5,2	72 @ 500MHz	1750	0.53	560
70N	70 @ 50MHz	10,5,2	68 @ 500MHz	1700	0.55	510
80N	80 @ 50MHz	10,5,2	75 @ 500MHz	1400	0.56	510
90N	90 @ 50MHz	10,5,2	80 @ 500MHz	1400	0.61	500
R56	560 @ 25MHz	10,5,2	40 @ 100MHz	400	1.33	400

Type 3650 Series

Characteristics - Electrical

Type 36521J Series - 0603 Package - High Current

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	Colour Code
1N6	1.6 @ 250MHz	10,5	24	12500	0.030	2400	Black
3N6	3.6 @ 250MHz	10,5	24	5900	0.048	2300	Brown
3N9	3.9 @ 250MHz	10,5	25	5900	0.054	2200	Red
6N8	6.8 @ 250MHz	10,5	35	5800	0.054	2100	Orange
7N5	7.5 @ 250MHz	10,5	35	3700	0.059	2100	Yellow
10N	10 @ 250MHz	10,5,2	38	3700	0.071	2000	Green
12N	12 @ 250MHz	10,5,2	38	3000	0.075	2000	Blue
15N	15 @ 250MHz	10,5,2	38	2800	0.080	1900	Violet
18N	18 @ 250MHz	10,5,2	40	2800	0.099	1900	Grey
22N	22 @ 250MHz	10,5,2	42	2400	0.099	1800	White
24N	24 @ 250MHz	10,5,2	42	2400	0.105	1800	Black

Characteristics - Electrical

Type 36532A Series - 0805 Package - High Q

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)	Colour Code
2N5	2.5 @ 250MHz	10,5	80 @ 1500MHz	6000	0.020	1600	Black
5N6	5.6 @ 250MHz	10,5	98 @ 1500MHz	6000	0.035	1600	Brown
6N2	6.2 @ 250MHz	10,5	88 @ 1000MHz	4750	0.035	1600	Red
6N8	6.8 @ 250MHz	10,5	80 @ 1000MHz	4400	0.035	1600	White
8N2	8.2 @ 250MHz	10,5	75 @ 1000MHz	3000	0.075	1000	Grey
12N	12 @ 250MHz	10,5	80 @ 1000MHz	3000	0.045	1600	Orange
16N	16 @ 250MHz	10,5,2	72 @ 500MHz	2950	0.060	1500	Yellow
18N	18 @ 250MHz	10,5,2	75 @ 500MHz	2550	0.060	1400	Green
20N	20 @ 250MHz	10,5,2	70 @ 500MHz	2050	0.055	1400	Blue
27N	27 @ 250MHz	10,5,2	75 @ 500MHz	2000	0.070	1300	Violet
30N	30 @ 250MHz	10,5,2	65 @ 500MHz	1950	0.095	1200	Grey
39N	39 @ 250MHz	10,5,2	65 @ 500MHz	1600	0.110	1100	White
48N	48 @ 200MHz	10,5,2	65 @ 500MHz	1400	0.095	1200	Black
51N	51 @ 200MHz	10,5,2	65 @ 500MHz	1400	0.120	1000	Brown

Characteristics - Electrical

Type 36532C Series - 1008 Package - High Q

Inductance Code	Inductance (nH)	Tolerance (%)	Q Min.	S.R.F. Min. (MHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)
3N0	3.0 @ 50MHz	10,5	70 @ 1500MHz	6000	0.04	1600
4N1	4.1 @ 50MHz	10,5	75 @ 1500MHz	6000	0.05	1600
7N8	7.8 @ 50MHz	10,5	75 @ 500MHz	3800	0.05	1600
10N	10 @ 50MHz	10,5,2	60 @ 500MHz	3600	0.06	1600
12N	12 @ 50MHz	10,5,2	70 @ 500MHz	2800	0.06	1500
18N	18 @ 50MHz	10,5,2	62 @ 350MHz	2700	0.07	1400
22N	22 @ 50MHz	10,5,2	62 @ 350MHz	2050	0.07	1400
33N	33 @ 50MHz	10,5,2	75 @ 350MHz	1700	0.09	1300
39N	39 @ 50MHz	10,5,2	75 @ 350MHz	1300	0.09	1300
47N	47 @ 50MHz	10,5,2	75 @ 350MHz	1450	0.12	1200
56N	56 @ 50MHz	10,5,2	75 @ 350MHz	1230	0.12	1200
68N	68 @ 50MHz	10,5,2	80 @ 350MHz	1150	0.13	1100
82N	82 @ 50MHz	10,5,2	80 @ 350MHz	1060	0.16	1100
R10	100 @ 50MHz	10,5,2	62 @ 350MHz	820	0.16	1000

Type 3650 Series

Characteristics - Electrical Type 36541E Series - 0402 Package - High SRF

Inductance Code	Inductance (nH)@ 250 MHz	Tolerance (% or nH)	S.R.F. Min. (GHz)	R.D.C. Max (Ohms)	I.D.C. Max. (mA)
1N0	1.0	±0.2nH, ±0.5nH, ±5%, ±10%	16.0	0.030	2300
2N0	2.0	±0.2nH, ±0.5nH, ±5%, ±10%	15.2	0.038	2100
2N2	2.2	±0.2nH, ±0.5nH, ±5%, ±10%	15.1	0.038	2100
2N4	2.4	±0.2nH, ±0.5nH, ±5%, ±10%	14.0	0.042	2000
2N7	2.7	±0.2nH, ±0.5nH, ±5%±10%	13.0	0.056	1500
3N3	3.3	±0.5nH, ±3%, ±5%±10%	12.8	0.045	1700
3N6	3.6	±0.5nH, ±3%, ±5%±10%	11.7	0.045	1700
3N9	3.9	±0.5nH, ±3%, ±5%±10%	9.5	0.045	1700
4N3	4.3	±0.5nH, ±3%, ±5%±10%	7.15	0.045	1600
4N7	4.7	±0.5nH, ±3%, ±5%±10%	6.85	0.060	1500
5N1	5.1	±2%, ±3%, ±5%, ±10%	6.8	0.100	1200
5N6	5.6	±2%, ±3%, ±5%, ±10%	6.5	0.048	1600
6N2	6.2	±2%, ±3%, ±5%, ±10%	5.8	0.050	1600
6N8	6.8	±2%, ±3%, ±5%, ±10%	5.8	0.055	1500
7N5	7.5	±2%, ±3%, ±5%, ±10%	5.4	0.080	1400
8N2	8.2	±2%, ±3%, ±5%, ±10%	5.4	0.058	1500
8N7	8.7	±2%, ±3%, ±5%, ±10%	5.0	0.058	1500
9N0	9.0	±2%, ±3%, ±5%, ±10%	5.0	0.080	1400
9N5	9.5	±2%, ±3%, ±5%, ±10%	4.7	0.080	1400
10N	10	±2%, ±3%, ±5%, ±10%	4.7	0.085	1300
11N	11	±2%, ±3%, ±5%, ±10%	4.7	0.065	1400
12N	12	±2%, ±3%, ±5%, ±10%	4.4	0.090	1200
13N	13	±2%, ±3%, ±5%, ±10%	4.2	0.140	870
15N	15	±2%, ±3%, ±5%, ±10%	3.9	0.110	1100
16N	16	±2%, ±3%, ±5%, ±10%	3.7	0.130	850
18N	18	±2%, ±3%, ±5%, ±10%	3.55	0.120	900
19N	19	±2%, ±3%, ±5%, ±10%	3.5	0.145	850
20N	20	±2%, ±3%, ±5%, ±10%	3.5	0.185	780
21N	21	±2%, ±3%, ±5%, ±10%	1.7	0.460	450
22N	22	±2%, ±3%, ±5%, ±10%	3.3	0.160	800
23N	23	±2%, ±3%, ±5%, ±10%	3.3	0.160	800
24N	24	±2%, ±3%, ±5%, ±10%	3.15	0.190	700
25N	25	±2%, ±3%, ±5%, ±10%	3.15	0.230	600
26N	26	±2%, ±3%, ±5%, ±10%	3.15	0.275	450
27N	27	±2%, ±3%, ±5%, ±10%	3.2	0.275	450
30N	30	±2%, ±3%, ±5%, ±10%	2.9	0.330	450
33N	33	±2%, ±3%, ±5%, ±10%	2.8	0.330	490
36N	36	±2%, ±3%, ±5%, ±10%	2.8	0.360	480
37N	37	±2%, ±3%, ±5%, ±10%	2.7	0.480	470
39N	39	±2%, ±3%, ±5%, ±10%	2.6	0.430	450
40N	40	±2%, ±3%, ±5%, ±10%	2.6	0.430	450
43N	43	±2%, ±3%, ±5%, ±10%	2.5	0.520	450
47N	47	±2%, ±3%, ±5%, ±10%	2.4	0.580	420
51N	51	±2%, ±3%, ±5%, ±10%	2.3	0.700	360

Type 3650 Series

Environmental Characteristics - Mechanical Performance

Item	Specification	Test Method
Vibration Test:	Appearance: No damage $\Delta L \leq \pm 5\%$ $\Delta Q \leq \pm 10\%$	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
Resistance to Soldering Heat:		Solder Temperature: 260 \pm 5°C Immersion Time: 10 \pm 2sec
Component Adhesion: (Push Test)	1 lbs. For 0402 2 lbs. For 0603 3 lbs. For the rest	The device should be REFLOW soldered (230 \pm 5°C for 10 seconds) to a tinned copper substrate. A dynamiter force gauge should be applied to the side of the component. The device must with stand a minimum force of 2 or 4 pounds without a failure of the termination attached to component.
Drop Test:	After test, there shall be no evidence of electrical or mechanical damage	Drop once for each face and once for each corner. Total drop 10 Times. Drop height :100cm Drop weight:125g
Solderability Test:	The terminal should at least be 90% covered with solder.	After fluxing (alpha 100 or equiv), inductor shall be dipped in a melted solder bath at 260 \pm 5°C for 5 seconds.
Resistance to Solvent Test:	There shall be no case of deformation change in appearance or obliteration of marking	MIL-STD202F,METHOD 215D

Electrical Performance

Item	Specification	Test Method
Inductance:		HP4291B
Q:		HP4291B
SRF:	REFER to Standard Electrical Characteristic List	HP8753D
DC Resistance R_{dc}:		Micro-Ohmeter (Gom-801G)
Rated Current IDC:		Applied the current to coils, $\Delta L < 10\%$
Overload Test:	After test, there shall be no evidence of electrical and mechanical damage	Applied 2 times rated current for 5 minutes
Withstanding Voltage Test:	After test, there shall be no evidence of electrical and mechanical damage.	Ac voltage of 500 VAC applied between inductors terminal and case for 1 minute.
Insulation Resistance Test:	1000M OHM MIN.	100 VDC applied between inductor terminal and case

Type 3650 Series

Climatic Test

Item	Specification	Test Method															
Operating Temp. Range:		-40°C to +125°C															
Humidity Resistance:		Temperature: 40±2°C Relative Humidity: 90~95% Time: 96hrs±2hrs Measured after exposure in the room condition for 2hrs															
Low Temp. Storage Test:		Temperature: -40±2°C Time: 48±2hrs Inductors are to be tested after 1 hour at room temperature															
Thermal Shock Test:	Appearance: No damage $\Delta L \leq \pm 10\%$ $\Delta Q \leq \pm 20\%$	One Cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>15</td> </tr> <tr> <td>3</td> <td>85±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>15</td> </tr> </tbody> </table> Total: 5 Cycles	Step	Temperature(°C)	Time (min)	1	-25±3	30	2	25±2	15	3	85±3	30	4	25±2	15
Step	Temperature(°C)	Time (min)															
1	-25±3	30															
2	25±2	15															
3	85±3	30															
4	25±2	15															
High Temp. Storage Test:		Temperature: 125±2°C Time: 48±2hrs Measured after 1 hour at room temperature															
High Temp. Load Life Test:		Temperature: 85±2°C Time: 1000±12hrs Load: Rated current															
Humidity Load Life:	There should be no evidence of short or open circuit.	Temperature: 40±2°C Relative Humidity: 90~95% Time: 1000±12hrs Load: Rated current															

* Storage Temperature: 25±3°C, <80%RH

Dimensions



Type 3650 Series

Series	A Max.	B Max.	C Max.	D Ref.	E	F	G	H	I	J
36502C	2.92	2.79	2.10	0.51	2.03	0.51	1.52	2.54	1.02	1.27
36502A	2.29	1.73	1.52	0.51	1.27	0.51	1.02	1.78	1.02	0.76
36501J	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64
36501E	1.27	0.76	0.61	0.15	0.51	0.23	0.56	0.66	0.50	0.46

Type 3651 Series

Series	A Max.	B Max.	C Max.	D Ref.	E	F	G	H	I	J
36512C	2.92	2.79	1.40	0.65	2.03	0.51	1.52	2.54	1.02	1.27
36512A	2.29	1.73	1.03	0.51	1.27	0.44	1.02	1.78	1.02	0.76

Type 3652 / 3653 / 3654 Series

Series	A Max.	B Max.	C Max.	D Ref.	E	F	G	H	I	J
36532C	2.92	2.79	2.03	0.65	2.03	0.51	1.52	2.54	1.02	1.27
36532A	2.29	1.73	1.52	0.51	1.27	0.44	1.02	1.78	1.02	0.76
36521J	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64
36541E	1.15	0.70	0.60	-	0.45	0.20	0.60	0.65	0.35	0.50

Type 3650 Series

Colour Coding

0603 / 0805/1008 Series (0402 Series has no Colour Coding)

Because of their small size, these parts are marked with a single colour dot.

The inductance value represented by the dot is shown on the data page for each series.



How to Order

3650	1E	R10	J	TDG
Common Part	Case Size	Inductance Value	Tolerance	Packaging
3650 - Std 3651 - Low Profile 3652 - High Current 3653 - High Q 3654 - High SRF	1E – 0402 Package 1J – 0603 Package 2A – 0805 Package 2C - 1008 Package	See relevant table for Inductance Code	G - $\pm 2\%$ J - $\pm 5\%$ K - $\pm 10\%$ M - $\pm 20\%$	TDG - 2000 pcs/reel TE - 4000pcs/reel (1E, 1J only)

Type 3650 Series Lab Kits

TE Connectivity are pleased to announce that our successful 3650 Series Low inductance, high frequency Chip Inductors are now also available in laboratory kits.

With four kits available, one for each chip size, each carrying an extensive selection of values, we are sure that the 3650 Lab Kits will become an essential part of your engineering office.



Type 3650 Series

0402 Lab Kit

Val nH	Tol.	Qty	Product Number	Description
1.0	5%	50	36501E1N0KTDG	3650 0402 1.0nH 10% 2K RL
1.9	5%	50	36501E1N9JTDG	3650 0402 1.9nH 5% 2K RL
2.0	5%	50	36501E2N0JTDG	3650 0402 2.0nH 5% 2K RL
2.2	5%	50	36501E2N2JTDG	3650 0402 2.2nH 5% 2K RL
2.4	5%	50	36501E2N4JTDG	3650 0402 2.4nH 5% 2K RL
2.7	5%	50	36501E2N7JTDG	3650 0402 2.7nH 5% 2K RL
3.3	5%	50	36501E3N3JTDG	3650 0402 3.3nH 5% 2K RL
3.6	5%	50	36501E3N6JTDG	3650 0402 3.6nH 5% 2K RL
3.9	5%	50	36501E3N9JTDG	3650 0402 3.9nH 5% 2K RL
4.3	5%	50	36501E4N3JTDG	3650 0402 4.3nH 5% 2K RL
4.7	5%	50	36501E4N7JTDG	3650 0402 4.7nH 5% 2K RL
5.1	5%	50	36501E5N1JTDG	3650 0402 5.1nH 5% 2K RL
5.6	5%	50	36501E5N6JTDG	3650 0402 5.6nH 5% 2K RL
6.2	5%	50	36501E6N2JTDG	3650 0402 6.2nH 5% 2K RL
6.8	5%	50	36501E6N8JTDG	3650 0402 6.8nH 5% 2K RL
7.5	5%	50	36501E7N5JTDG	3650 0402 7.5nH 5% 2K RL
8.2	5%	50	36501E8N2JTDG	3650 0402 8.2nH 5% 2K RL
8.7	5%	50	36501E8N7JTDG	3650 0402 8.7nH 5% 2K RL
9.0	5%	50	36501E9N0JTDG	3650 0402 9.0nH 5% 2K RL
9.5	5%	50	36501E9N5JTDG	3650 0402 9.5nH 5% 2K RL
10	5%	50	36501E10NJTDG	3650 0402 10nH 5% 2K RL
11	5%	50	36501E11NJTDG	3650 0402 11nH 5% 2K RL
12	5%	50	36501E12NJTDG	3650 0402 12nH 5% 2K RL
13	5%	50	36501E13NJTDG	3650 0402 13nH 5% 2K RL
15	5%	50	36501E15NJTDG	3650 0402 15nH 5% 2K RL
16	5%	50	36501E16NJTDG	3650 0402 16nH 5% 2K RL
18	5%	50	36501E18NJTDG	3650 0402 18nH 5% 2K RL
19	5%	50	36501E19NJTDG	3650 0402 19nH 5% 2K RL
20	5%	50	36501E20NJTDG	3650 0402 20nH 5% 2K RL
22	5%	50	36501E22NJTDG	3650 0402 22nH 5% 2K RL
23	5%	50	36501E23NJTDG	3650 0402 23nH 5% 2K RL
24	5%	50	36501E24NJTDG	3650 0402 24nH 5% 2K RL
27	5%	50	36501E27NJTDG	3650 0402 27nH 5% 2K RL
30	5%	50	36501E30NJTDG	3650 0402 30nH 5% 2K RL
33	5%	50	36501E33NJTDG	3650 0402 33nH 5% 2K RL
36	5%	50	36501E36NJTDG	3650 0402 36nH 5% 2K RL
39	5%	50	36501E39NJTDG	3650 0402 39nH 5% 2K RL
40	5%	50	36501E40NJTDG	3650 0402 40nH 5% 2K RL
43	5%	50	36501E43NJTDG	3650 0402 43nH 5% 2K RL
47	5%	50	36501E47NJTDG	3650 0402 47nH 5% 2K RL
51	5%	50	36501E51NJTDG	3650 0402 51nH 5% 2K RL
56	5%	50	36501E56NJTDG	3650 0402 56nH 5% 2K RL
68	5%	50	36501E68NJTDG	3650 0402 68nH 5% 2K RL

0603 Lab Kit

Val nH	Tol.	Qty	Product Number	Description
1.6	5%	50	36501J1N6JTDG	3650 0603 1.6nH 5% 2K RL
1.8	5%	50	36501J1N8JTDG	3650 0603 1.8nH 5% 2K RL
2.2	5%	50	36501J2N2JTDG	3650 0603 2.2nH 5% 2K RL
3.3	5%	50	36501J3N3JTDG	3650 0603 3.3nH 5% 2K RL
3.6	5%	50	36501J3N6JTDG	3650 0603 3.6nH 5% 2K RL
3.9	5%	50	36501J3N9JTDG	3650 0603 3.9nH 5% 2K RL
4.3	5%	50	36501J4N3JTDG	3650 0603 4.3nH 5% 2K RL
4.7	5%	50	36501J4N7JTDG	3650 0603 4.7nH 5% 2K RL
5.1	5%	50	36501J5N1JTDG	3650 0603 5.1nH 5% 2K RL
5.6	5%	50	36501J5N6JTDG	3650 0603 5.6nH 5% 2K RL
6.8	5%	50	36501J6N8JTDG	3650 0603 6.8nH 5% 2K RL
7.5	5%	50	36501J7N5JTDG	3650 0603 7.5nH 5% 2K RL
8.2	5%	50	36501J8N2JTDG	3650 0603 8.2nH 5% 2K RL
8.7	5%	50	36501J8N7JTDG	3650 0603 8.7nH 5% 2K RL
9.5	5%	50	36501J9N5JTDG	3650 0603 9.5nH 5% 2K RL
10	5%	50	36501J010JTDG	3650 0603 10nH 5% 2K RL
11	5%	50	36501J11NJTDG	3650 0603 11nH 5% 2K RL
12	5%	50	36501J012JTDG	3650 0603 12nH 5% 2K RL
15	5%	50	36501J15NJTDG	3650 0603 15nH 5% 2K RL
16	5%	50	36501J16NJTDG	3650 0603 16nH 5% 2K RL
18	5%	50	36501J18NJTDG	3650 0603 18nH 5% 2K RL
22	5%	50	36501J022JTDG	3650 0603 22nH 5% 2K RL
23	5%	50	36501J23NJTDG	3650 0603 23nH 5% 2K RL
24	5%	50	36501J24NJTDG	3650 0603 24nH 5% 2K RL
27	5%	50	36501J027JTDG	3650 0603 27nH 5% 2K RL
30	5%	50	36501J30NJTDG	3650 0603 30nH 5% 2K RL
33	5%	50	36501J033JTDG	3650 0603 33nH 5% 2K RL
36	5%	50	36501J36NJTDG	3650 0603 36nH 5% 2K RL
39	5%	50	36501J039JTDG	3650 0603 39nH 5% 2K RL
43	5%	50	36501J43NJTDG	3650 0603 43nH 5% 2K RL
47	5%	50	36501J047JTDG	3650 0603 47nH 5% 2K RL
51	5%	50	36501J51NJTDG	3650 0603 51nH 5% 2K RL
56	5%	50	36501J56NJTDG	3650 0603 56nH 5% 2K RL
68	5%	50	36501J068JTDG	3650 0603 68nH 5% 2K RL
72	5%	50	36501J72NJTDG	3650 0603 72nH 5% 2K RL
82	5%	50	36501J82NJTDG	3650 0603 82nH 5% 2K RL
100	5%	50	36501JR10JTDG	3650 0603 0.10uH 5% 2K RL
110	5%	50	36501JR11JTDG	3650 0603 0.11uH 5% 2K RL
120	5%	50	36501JR12JTDG	3650 0603 0.12uH 5% 2K RL
150	5%	50	36501JR15JTDG	3650 0603 0.15uH 5% 2K RL
180	5%	50	36501JR18JTDG	3650 0603 0.18uH 5% 2K RL
220	5%	50	36501JR22JTDG	3650 0603 0.22uH 5% 2K RL
260	5%	50	36501JR26JTDG	3650 0603 0.26uH 5% 2K RL
270	5%	50	36501JR27JTDG	3650 0603 0.27uH 5% 2K RL
330	5%	50	36501JR33JTDG	3650 0603 0.33uH 5% 2K RL
390	5%	50	36501JR39JTDG	3650 0603 0.39uH 5% 2K RL