TYPE SC10/SC15/SC30 SERIES

1st April 2003
ISSUE 4

Axial Leaded Power Inductors

TYPE SC10/SC15/SC30 SERIES

Tyco quality and reliability are guaranteed in this range of insulated and shielded RF Inductors. The insulated range has a self-extinguishing polyolefin sleeve. Their small size make them ideal for use when space is at a premium. And they are also fully protected from environmental factors. Electrostatic and electromagnetic screening is provided by the magnetic enclosure. A wide range of values are available and the self extinguishing polyoefin sleeve enhances environmental protection. The SC series was originally designed for military applications but now has widespread industrial use.

KEY FEATURES

- Wide Inductance Range
- Insulated Packaging
- Three Power Ratings
- Flame Retardant
- Wide Temperature Range
- Established Reliability
- Fully Protected from the Environment
- Available from Distribution

STOCKISTS:

This product is available from RS, Arrow and Farnell.

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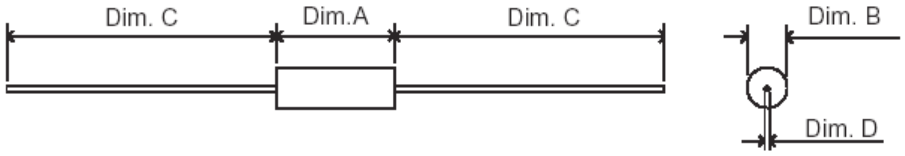
DIMENSIONS

Dimensions				
Type	**A max.**	**B max.**	**C min.**	**D**
SC10	10.0mm	4.2mm	25.0mm	0.6mm
SC15	10.0mm	4.5mm	30.0mm	0.6mm
SC30	7.0mm	2.8mm	25.0mm	0.5mm



All Dimensions are
in mm and nominal.
Do Not Scale

PACKAGING

Type	**Ammo Pack**	**Reeled**
SC10	500 Pieces	1500 Pieces
SC15	500 Pieces	1500 Pieces
SC30	500 Pieces	2500 Pieces

CHARACTERISTICS

	SC10	**SC15**	**SC30**
Inductance Range:	See Table - E12 Grid (Non-standard values available to special order)		
Selection Tolerance:	±10%	±10%	±10%
Power Rating at 70°C:	0.33W	See Below	0.25W
Isolation Voltage:	700V DC or AC peak		
Limits of Inductance Change:	5% after 1000 hours endurance		
Operating Temperature Range:	-55°C to +100°C		
Recommended Storage Temperature:	0°C to +35°C		
Climatic Category:	55/100/21		

SC15 Power Rating

Values between 0.15uH and 4.7uH - Power Rating 0.33 Watt
Values between 5.6uH and 330uH - Power Rating 0.20 Watt

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ELECTRICAL **TYPE SC10**

	Inductance Value - µH	Inductance Code	Test Frequency MHz	Q Factor Minimum	Minimum SRF MHz	Maximum DC Resistance at 20°C	Direct Current at 70°C - Maximum mA
SECTION 1	0.10	R10	25	50	500	500	2060
	0.12	R12	25	50	475	475	1970
	0.15	R15	25	50	450	450	1900
	0.18	R18	25	50	425	425	1830
	0.22	R22	25	50	400	400	1770
	0.27	R27	25	50	380	380	1660
	0.33	R33	25	50	360	360	1570
	0.39	R39	25	50	330	330	1460
	0.47	R47	25	50	300	300	1390
	0.56	R56	25	50	280	280	1290
	0.68	R68	25	45	260	260	1210
	0.82	R82	25	45	235	235	950
	1.0	1R0	25	45	210	210	880
	1.2	1R2	7.9	32	190	190	685
	1.5	1R5	7.9	32	170	170	625
	1.8	1R8	7.9	32	156	156	560
	2.2	2R2	7.9	32	140	140	460
	2.7	2R7	7.9	32	125	125	410
	3.3	3R3	7.9	32	115	115	350
SECTION 2	3.9	3R9	7.9	45	785	0.25	970
	4.7	4R7	7.9	45	65	0.35	820
	5.6	5R6	7.9	45	60	0.40	765
	6.8	6R8	7.9	45	55	0.55	650
	8.2	8R2	7.9	45	50	0.75	560
	10	100	7.9	45	45	0.9	510
	12	120	2.5	55	40	1.1	460
	15	150	2.5	55	35	1.5	395
	18	180	2.5	55	30	2.7	295
	22	220	2.5	55	27	3.0	280
	27	270	2.5	55	25	4.5	230
	33	330	2.5	55	22	5.2	210
	39	390	2.5	55	20	7.5	175
	47	470	2.5	55	18	9.6	156
SECTION 3	56	560	2.5	55	11	8.1	170
	68	680	2.5	55	10	9.0	161
	82	820	2.5	50	8.5	10.0	153
	100	101	2.5	50	7.0	11.0	146
	120	121	0.79	40	6.5	12.0	140
	150	151	0.79	40	5.5	13.0	134
	180	181	0.79	45	5.0	15.0	125
	220	221	0.79	45	4.2	17.0	117
	270	271	0.79	45	3.8	19.5	110
	330	331	0.79	45	3.3	22.0	103
	390	391	0.79	45	3.1	24.5	98
	470	471	0.79	45	2.9	26.5	94
	560	561	0.79	45	2.7	30.0	88
	680	681	0.79	45	2.5	33.0	84
	820	821	0.79	45	2.3	36.5	80
	1000	102	0.79	40	2.2	40.0	76

NB Section 1 was formerly the Tyco C10 Series
Section 2 was formerly the Tyco C11 Series
Section 3 was formerly the Tyco C12 Series

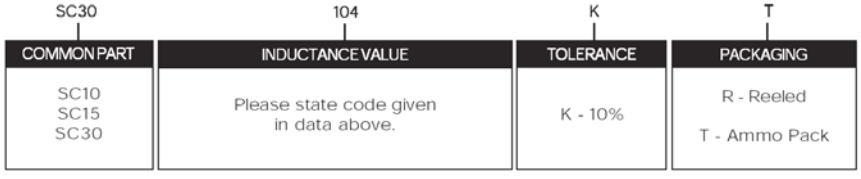
TYPE SC10/SC15/SC30 SERIES

ELECTRICAL (cont'd) **TYPE SC15**

Inductance Value - µH	Inductance Code	Test Frequency MHz	Q Factor Minimum	Minimum SRF MHz	Maximum DC Resistance at 20°C	Direct Current at 70°C - Maximum mA
0.15	R15	25	50	525	0.030	2790
0.18	R18	25	45	480	0.040	2420
0.22	R22	25	50	450	0.055	2060
0.27	R27	25	45	400	0.070	1830
0.33	R33	25	45	360	0.090	1610
0.39	R39	25	45	350	0.100	1530
0.47	R47	25	45	310	0.120	1400
0.56	R56	25	50	280	0.135	1320
0.68	R68	25	50	250	0.15	1250
0.82	R82	25	50	220	0.22	1030
1.0	1R0	25	50	200	0.29	900
1.2	1R2	7.9	33	180	0.42	750
1.5	1R5	7.9	33	160	0.50	685
1.8	1R8	7.9	33	150	0.65	600
2.2	2R2	7.9	33	135	0.95	495
2.7	2R7	7.9	33	120	1.20	440
3.3	3R3	7.9	33	110	2.00	340
3.9	3R9	7.9	33	100	2.30	320
4.7	4R7	7.9	33	90	2.60	300
5.6	5R6	7.9	45	60	0.32	690
6.8	6R8	7.9	50	55	0.50	550
8.2	8R2	7.9	50	50	0.60	505
10	100	7.9	55	45	0.90	415
12	120	2.5	65	42	1.10	375
15	150	2.5	65	40	1.40	330
18	180	2.5	75	34	2.25	260
22	220	2.5	75	30	2.50	250
24*	240*	2.5	60	27	2.50	250
27	270	2.5	60	25	2.60	242
30	300	2.5	65	21	2.80	230
33	330	2.5	65	19	3.00	227
36*	360*	2.5	60	15.5	2.50	250
39	390	2.5	60	14.5	2.60	244
43*	430*	2.5	60	13.7	2.70	238
47	470	2.5	55	13.0	2.75	235
51*	510*	2.5	55	12.7	2.85	231
56	560	2.5	55	12.0	3.00	225
62*	620*	2.5	55	11.5	3.15	220
68	680	2.5	55	11.0	3.30	215
75*	750*	2.5	55	10.5	3.70	203
82	820	2.5	50	10.3	3.90	200
91*	910*	2.5	50	10.0	4.30	188
100	101	2.5	50	9.5	4.50	185
110*	111*	0.79	60	8.9	4.90	176
120	121	0.79	65	8.7	5.20	170
130*	131*	0.79	65	8.5	5.45	167
150	151	0.79	65	8.0	6.05	160
160*	161*	0.79	65	7.5	6.40	154
180	181	0.79	65	7.0	6.75	150
200*	201*	0.79	65	6.5	7.10	147
220	221	0.79	65	6.2	7.45	144
240*	241*	0.79	65	5.9	7.80	140
270	271	0.79	65	5.7	9.00	131
300*	301*	0.79	65	5.4	11.50	118
330	331	0.79	65	5.1	12.50	111

Starred Items have a standard tolerance of 5% not 10%

HOW TO ORDER



ELECTRICAL (cont'd) **TYPE SC30**

Inductance Value - µH	Inductance Code	Test Frequency MHz	Q Factor Minimum	Minimum SRF MHz	Maximum DC Resistance at 20°C	Direct Current at 70°C - Maximum mA
0.022	R022	50	33	1245	0.006	3000
0.027	R027	50	33	1200	0.010	2800
0.033	R033	50	33	1175	0.026	2620
0.039	R039	50	33	1130	0.033	2320
0.047	R047	50	33	1060	0.038	2170
0.056	R056	50	33	990	0.048	1930
0.068	R068	50	33	900	0.055	1800
0.082	R082	50	33	750	0.065	1650
0.10	R10	25	40	680	0.080	1490
0.12	R12	25	40	640	0.090	1400
0.15	R15	25	38	600	0.10	1330
0.18	R18	25	35	550	0.12	1210
0.22	R22	25	33	510	0.14	1120
0.27	R27	25	33	430	0.16	1050
0.33	R33	25	30	410	0.22	900
0.39	R39	25	30	365	0.30	770
0.47	R47	25	30	330	0.35	710
0.56	R56	25	30	300	0.50	595
0.68	R68	25	28	275	0.60	540
0.82	R82	25	28	250	0.85	455
1.0	1R0	25	25	230	1.00	420
1.2	1R2	7.9	25	150	0.18	990
1.5	1R5	7.9	28	140	0.22	895
1.8	1R8	7.9	30	125	0.30	765
2.2	2R2	7.9	30	115	0.40	665
2.7	2R7	7.9	37	100	0.55	565
3.3	3R3	7.9	45	90	0.85	455
3.9	3R9	7.9	45	80	1.0	420
4.7	4R7	7.9	45	75	1.2	384
5.6	5R6	7.9	50	65	1.8	314
6.8	6R8	7.9	50	60	2.0	298
8.2	8R2	7.9	55	55	2.7	256
10	100	7.9	55	50	3.7	219
12	120	2.5	45	40	2.7	256
15	150	2.5	45	35	2.8	251
18	180	2.5	50	30	3.1	239
22	220	2.5	50	25	3.3	232
27	270	2.5	50	20	3.5	225
33	330	2.5	45	24	3.4	228
39	390	2.5	45	22	3.6	222
47	470	2.5	45	20	4.5	198
56	560	2.5	45	18	5.7	176
68	680	2.5	50	15	6.7	162
82	820	2.5	50	14	7.3	156
100	101	2.5	50	13	8.0	149
120	121	0.79	30	12	13.0	116
150	151	0.79	30	11	15.0	108
180	181	0.79	30	10	17.0	102
220	221	0.79	30	9	21.0	92
270	271	0.79	30	8	25.0	84
330	331	0.79	30	7	28.0	79
390	391	0.79	30	6.5	35.0	71
470	471	0.79	30	6	42.0	65
560	561	0.79	30	5	46.0	62
680	681	0.79	30	4	60.0	54
820	821	0.79	30	3.8	65.0	52
1000	102	0.79	30	3.4	72.0	49

NB The SC30 Series was formerly the Tyco C30 Series