Type SC0204 / 0205 / 0307/ 0405 / 0410 / 0512 Series



Tyco Electronics reliability is now available in this low cost epoxy coated range of high quality inductors. Manufactured in 6 convenient package sizes (SC0204, SC0205, SC0307, SC0405, SC0410 & SC0512) with wide inductance ranges in all, make this series the ideal solution for your "through hole" board designs.

Key Features

- Economy Priced Range
- Moulded Package
- E12 Value Grid
- 6 Package Sizes
- Fully Protected from the Environment
- Supplied Ammo Packed or Reeled
- Established Reliability

Characteristics - Electrical SC0204 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
0.10	R10	10%	25.2	40	600	0.16	800
0.12	R12	10%	25.2	40	520	0.16	790
0.15	R15	10%	25.2	40	500	0.16	790
0.18	R18	10%	25.2	40	480	0.18	745
0.22	R22	10%	25.2	40	420	0.20	705
0.27	R27	10%	25.2	40	390	0.22	670
0.33	R33	10%	25.2	40	350	0.24	645
0.39	R39	10%	25.2	50	320	0.27	605
0.47	R47	10%	25.2	50	300	0.30	575
0.56	R56	10%	25.2	50	280	0.34	540
0.68	R68	10%	25.2	50	240	0.38	510
0.82	R82	10%	25.2	50	210	0.43	480
1.0	1R0	10%	25.2	50	190	0.46	465
1.2	1R2	10%	7.96	50	110	0.52	435
1.5	1R5	10%	7.96	50	80	0.57	415
1.8	1R8	10%	7.96	50	66	0.60	405
2.2	2R2	10%	7.96	50	60	0.65	390
2.7	2R7	10%	7.96	50	54	0.73	370
3.3	3R3	10%	7.96	50	48	0.82	345
3.9	3R9	10%	7.96	50	44	0.90	330
4.7	4R7	10%	7.96	50	38	1.00	315
5.6	5R6	10%	7.96	50	34	1.10	300
6.8	6R8	10%	7.96	50	30	1.20	285
8.2	8R2	10%	7.96	50	26	1.30	275
10	100	10%	7.96	50	24	1.40	265
12	120	10%	2.52	50	22	1.50	255
15	150	10%	2.52	50	20	1.65	245
18	180	10%	2.52	50	18	1.90	225
22	220	10%	2.52	50	17	2.20	210
27	270	10%	2.52	50	16	2.50	200
33	330	10%	2.52	50	14	3.80	160
39	390	10%	2.52	50	13	4.20	150
47	470	10%	2.52	50	12	4.60	145
56	560	10%	2.52	40	11	5.10	140
68	680	10%	2.52	40	10	5.60	130
82	820	10%	2.52	40	9.5	9.60	100
100	101	10%	2.52	40	8.0	10.80	95
120	121	10%	0.796	40	6.5	12.50	85
150	151	10%	0.796	40	6.0	14.50	80
180	181	10%	0.796	40	5.5	16.30	75
220	221	10%	0.796	40	5.0	20.00	70

Downloaded from Arrow.com.

Characteristics - Electrical
SC0205 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
0.10	R10	20%	25.2	35	300	0.18	700
0.12	R12	20%	25.2	35	300	0.20	660
0.15	R15	20%	25.2	35	300	0.22	620
0.18	R18	20%	25.2	35	300	0.24	600
0.22	R22	20%	25.2	35	150	0.40	400
0.27	R27	20%	25.2	35	150	0.43	380
0.33	R33	20%	25.2	35	150	0.48	370
0.39	R39	20%	25.2	35	150	0.51	350
0.47	R47	20%	25.2	35	150	0.56	330
0.56	R56	20%	25.2	35	150	0.61	320
0.68	R68	20%	25.2	35	150	0.67	310
0.82	R82	20%	25.2	35	150	0.74	290
1.0	1R0	10%	25.2	40	150	0.80	270
1.2	1R2	10%	7.96	40	110	0.90	260
1.5	1R5	10%	7.96	40	70	1.00	250
1.8	1R8	10%	7.96	40	60	1.10	240
2.2	2R2	10%	7.96	40	45	1.20	230
2.7	2R7	10%	7.96	40	40	1.30	220
3.3	3R3	10%	7.96	40	38	1.40	210
3.9	3R9	10%	7.96	40	36	1.50	200
4.7	4R7	10%	7.96	40	32	1.70	190
5.6	5R6	10%	7.96	40	30	1.90	180
6.8	6R8	10%	7.96	40	28	2.00	175
8.2	8R2	10%	7.96	40	26	2.20	165
10	100	10%	7.96	40	24	2.50	160
12	120	10%	2.52	40	22	2.50	150
15	150	10%	2.52	40	20	2.80	145
18	180	10%	2.52	40	18	3.10	140
22	220	10%	2.52	40	17	3.40	100
27	270	10%	2.52	40	16	4.30	80
33	330	10%	2.52	40	14	4.70	75
39	390	10%	2.52	40	13	5.20	74
47	470	10%	2.52	40	12	5.80	70
56	560	10%	2.52	40	11	6.40	68
68	680	10%	2.52	40	10	7.20	64
82	820	10%	2.52	40	9.5	11.00	46
100	101	10%	2.52	40	9.0	12.00	44
120	121	10%	0.796	40	8.0	13.00	42
150	151	10%	0.796	40	6.0	16.00	39
180	181	10%	0.796	40	5.0	18.00	37
220	221	10%	0.796	40	5.0	20.00	35
227	271	10%	0.796	40	4.6	25.00	25
330	331	10%	0.796	40	4.2	30.00	25
390	391	10%	0.796	40	3.8	34.00	25
470	471	10%	0.796	40	3.5	38.00	24

Downloaded from Arrow.com.

Characteristics - Electrical
SC0307 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
0.10	R10	20%	25.2	45	480	0.06	1400
0.12	R12	20%	25.2	45	450	0.06	1350
0.15	R15	20%	25.2	45	420	0.07	1270
0.18	R18	20%	25.2	45	400	0.07	1200
0.22	R22	20%	25.2	45	380	0.08	1150
0.27	R27	20%	25.2	45	360	0.09	1100
0.33	R33	20%	25.2	45	320	0.10	1100
0.39	R39	20%	25.2	45	310	0.12	1000
0.47	R47	20%	25.2	45	300	0.15	1000
0.56	R56	20%	25.2	45	280	0.18	950
0.68	R68	20%	25.2	45	240	0.20	900
0.82	R82	20%	25.2	45	200	0.22	900
1.0	1R0	10%	25.2	45	180	0.25	815
1.2	1R2	10%	7.96	45	160	0.28	740
1.5	1R5	10%	7.96	45	140	0.30	700
1.8	1R8	10%	7.96	45	120	0.35	655
2.2	2R2	10%	7.96	45	110	0.40	630
2.7	2R7	10%	7.96	45	85	0.45	595
3.3	3R3	10%	7.96	45	74	0.50	575
3.9	3R9	10%	7.96	45	62	0.55	555
4.7	4R7	10%	7.96	45	48	0.60	530
5.6	5R6	10%	7.96	45	35	0.65	500
6.8	6R8	10%	7.96	45	28	0.70	470
8.2	8R2	10%	7.96	45	20	0.80	425
10	100	10%	7.96	45	18	0.85	370
12	120	10%	2.52	45	16	0.90	350
15	150	10%	2.52	45	14	1.00	335
18	180	10%	2.52	45	12	1.20	315
22	220	10%	2.52	45	10	1.35	285
27	270	10%	2.52	45	9.0	1.80	270
33	330	10%	2.52	45	8.0	2.10	255
39	390	10%	2.52	45	7.5	2.30	240
47	470	10%	2.52	50	7.0	2.60	205
56	560	10%	2.52	50	6.5	2.90	195
68	680	10%	2.52	50	6.0	3.20	185
82	820	10%	2.52	50	5.5	3.80	175
100	101	10%	2.52	50	5.0	4.20	165
120	121	10%	0.796	50	4.8	4.50	160
150	151	10%	0.796	50	4.5	5.00	150
180	181	10%	0.796	50	4.0	6.00	140
220	221	10%	0.796	50	3.5	7.00	130
270	271	10%	0.796	50	3.0	7.50	120
330	331	10%	0.796	50	2.8	8.00	100
390	391	10%	0.796	50	2.6	10.0	95
470	471	10%	0.796	50	2.4	13.0	90
560	561	10%	0.796	50	2.0	15.0	85
680	681	10%	0.796	50	1.8	16.0	75
820	821	10%	0.796	50	1.6	23.0	65
1000	102	10%	0.796	50	1.4	26.0	60

Downloaded from Arrow.com.

Characteristics - Electrical
SC0405 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
0.22	R22	20%	25.2	50	200	0.08	1400
0.27	R27	20%	25.2	50	180	0.09	1350
0.33	R33	20%	25.2	50	160	0.10	1300
0.39	R39	20%	25.2	50	140	0.11	1250
0.47	R47	20%	25.2	50	130	0.12	1200
0.56	R56	20%	25.2	50	120	0.14	1150
0.68	R68	20%	25.2	50	120	0.15	1100
0.82	R82	20%	25.2	50	90	0.16	1050
1.0	1R0	10%	25.2	50	85	0.17	1000
1.2	1R2	10%	7.96	50	80	0.18	900
1.5	1R5	10%	7.96	50	75	0.20	800
1.8	1R8	10%	7.96	50	57	0.22	770
2.2	2R2	10%	7.96	50	47	0.24	750
2.7	2R7	10%	7.96	50	42	0.26	710
3.3	3R3	10%	7.96	50	37	0.28	670
3.9	3R9	10%	7.96	50	35	0.30	620
4.7	4R7	10%	7.96	50	34	0.34	560
5.6	5R6	10%	7.96	50	27	0.45	540
6.8	6R8	10%	7.96	50	25	0.50	520
8.2	8R2	10%	7.96	50	23	0.57	490
10	100	10%	7.96	50	21	0.62	460
12	120	10%	2.52	50	18	0.90	360
15	150	10%	2.52	50	16	1.00	340
18	180	10%	2.52	50	15	1.10	310
22	220	10%	2.52	50	13	1.20	280
27	270	10%	2.52	50	12	1.30	260
33	330	10%	2.52	50	11	1.70	240
39	390	10%	2.52	50	10	1.90	220
47	470	10%	2.52	50	10	2.20	210
56	560	10%	2.52	50	9.0	2.40	190
68	680	10%	2.52	50	8.5	3.00	175
82	820	10%	2.52	50	8.0	3.30	165
100	101	10%	2.52	50	7.0	4.00	155
120	121	10%	0.796	50	6.5	4.50	145
150	151	10%	0.796	50	6.0	4.90	130
180	181	10%	0.796	50	5.3	6.00	125
220	221	10%	0.796	50	5.0	7.00	120
270	271	10%	0.796	50	4.6	9.00	105
330	331	10%	0.796	50	4.2	13.0	95
390	391	10%	0.796	50	3.8	15.0	90
470	471	10%	0.796	50	3.4	17.0	80
560	561	10%	0.796	50	2.8	19.0	75
680	681	10%	0.796	50	2.6	21.0	70
820	821	10%	0.796	50	2.4	25.0	60
1000	102	10%	0.796	50	2.2	31.5	55

Downloaded from Arrow.com.

Characteristics - Electrical
SC0410 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
0.10	R10	20%	25.2	50	480	0.06	1700
0.12	R12	20%	25.2	50	450	0.06	1640
0.15	R15	20%	25.2	50	420	0.07	1560
0.18	R18	20%	25.2	50	400	0.07	1480
0.22	R22	20%	25.2	50	380	0.08	1400
0.27	R27	20%	25.2	50	340	0.09	1320
0.33	R33	20%	25.2	50	300	0.10	1280
0.39	R39	20%	25.2	50	280	0.12	1200
0.47	R47	20%	25.2	50	250	0.13	1150
0.56	R56	20%	25.2	50	230	0.14	1100
0.68	R68	20%	25.2	50	210	0.15	1030
0.82	R82	20%	25.2	50	172	0.16	980
1.0	1R0	10%	25.2	50	157	0.17	920
1.2	1R2	10%	7.96	50	144	0.18	880
1.5	1R5	10%	7.96	50	131	0.20	830
1.8	1R8	10%	7.96	50	121	0.22	790
2.2	2R2	10%	7.96	50	110	0.24	750
2.7	2R7	10%	7.96	60	100	0.25	720
3.3	3R3	10%	7.96	60	94	0.30	670
3.9	3R9	10%	7.96	60	86	0.35	640
4.7	4R7	10%	7.96	70	80	0.40	650
5.6	5R6	10%	7.96	70	74	0.45	590
6.8	6R8	10%	7.96	70	68	0.50	550
8.2	8R2	10%	7.96	80	53	0.60	530
10	100	10%	7.96	80	40	0.65	500
12	120	10%	2.52	70	34	0.70	480
15	150	10%	2.52	70	20	0.75	460
18	180	10%	2.52	60	14	0.80	430
22	220	10%	2.52	60	9.9	0.90	410
27	270	10%	2.52	50	7.6	1.00	390
33	330	10%	2.52	50	6.5	1.10	370
39	390	10%	2.52	50	6.5	1.20	350
47	470	10%	2.52	45	6.3	1.30	340
56	560	10%	2.52	45	6.2	1.50	320
68	680	10%	2.52	40	5.7	1.80	305
82	820	10%	2.52	35	5.3	2.00	290
100	101	10%	2.52	30	4.8	2.50	275
120	121	10%	0.796	60	3.8	3.00	185
150	151	10%	0.796	60	3.5	4.00	175
180	181	10%	0.796	60	3.0	4.50	165
220	221	10%	0.796	60	2.8	5.00	155
270	271	10%	0.796	60	2.6	6.00	145
330	331	10%	0.796	60	2.4	6.50	137
390	391	10%	0.796	55	2.0	7.50	133
470	471	10%	0.796	50	1.8	8.50	126
560	561	10%	0.796	50	1.6	9.50	120
680	681	10%	0.796	45	1.6	12.00	113
820	821	10%	0.796	45	1.4	14.00	105
1000	102	10%	0.796	40	1.2	20.00	85

Downloaded from Arrow.com.

Type SC0204 / 0205 / 0307 / 0405 / 0410 / 0512 Series

Characteristics - Electrical
SC0512 Package

Inductance Value - µH	Inductance Code	Tolerance	Test Freq. MHz	Min. Q Factor	Min. S.R.F. (MHz)	Max. DC Resistance at 20°C	Dir.Current at 70°C- Max.mA
33	330	±10%	2.52	40	7.0	0.45	500
47	470	±10%	2.52	30	5.0	0.50	450
68	680	±10%	2.52	30	4.0	0.60	380
100	101	±10%	0.796	30	3.0	0.75	320
220	221	±10%	0.796	30	0.8	1.05	280
470	471	±5%	0.796	35	1.5	2.50	200
1000	102	±5%	0.252	50	1.2	1.8	140
1500	152	±5%	0.252	45	1.0	6.5	120
2200	222	±5%	0.252	40	0.8	9.0	90
3300	332	±5%	0.252	40	0.6	18	75
3900	392	±5%	0.252	40	0.6	20	70
4700	472	±5%	0.252	40	0.5	26	60
10000	103	±5%	0.0796	30	0.32	48	45
22000	223	±5%	0.0796	30	0.24	136	25
47000	473	±5%	0.0796	20	0.16	240	20
100000	104	±5%	0.0796	20	0.12	480	15

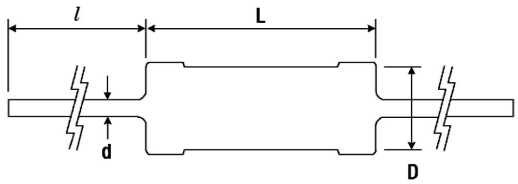
Electrical Characteristics

	SC0204	SC205	SC0307	SC0405	SC0410	SC0512
Inductance Range:	See Table (E12 Grid)					
Inductance Tolerance:	See Table					
Temperature Rise (max.)	20°C					
Ambient Temperature (max.)	60°C					
Terminal Tensile Strength:	1.0Kg minimum					
Terminal Bending Strength:	0.3Kg minimum					
Operating Temperature Range:	-20°C - +80°C					
Dielectric Withstand Voltage:	250 Vrms					

Colour Coding

1st Colour Band – First Significant figure of the Inductance Value
2nd Colour Band – Second Significant figure of the Inductance Value
3rd Colour Band – Multiplier for the Inductance Value
4th Colour Band – Inductance Tolerance

Dimensions



Type	A max.	B max.	C min.	D
SC0204	3.4mm	2.4mm	20.0mm	0.48mm
SC0205	5.4mm	2.4mm	28.0mm	0.45mm
SC0307	7.5mm	3.0mm	25.0mm	0.50mm
SC0405	4.8mm	3.8mm	25.0mm	0.60mm
SC0410	10.5mm	4.0mm	25.0mm	0.65mm
SC0512	12.0mm	4.8mm	24.0mm	0.65mm

Downloaded from Arrow.com.

Type SC0204 / 0205 / 0307 / 0405 / 0410 / 0512 Series

Packaging

Type	Ammo Pack	Reeled
SC0204	2000 Pieces	n/a
SC0205	2000 Pieces	n/a
SC0307	3000 Pieces	5000 Pieces
SC0405	2000 Pieces	n/a
SC0410	2000 Pieces	5000 Pieces
SC0512	1000 Pieces	3000 Pieces

How to Order

SC0204	1R0	M	T
Common Part	**Inductance Code**	**Tolerance**	**Packaging**
SC0204 SC0205 SC0307 SC0405 SC0410 SC0512	Please state code given in tables on previous pages.	J - 5% K - 10% M - 20%	R – Reeled T – Ammo Pack

Downloaded from Arrow.com.