

Type MSC30 Series



The Tyco MSC30 is a fully moulded sister to the well known SC30 series. The characteristics, tolerance, Q, SRF and DC resistance mirror exactly the SC30. The current carrying capacity is similar although the specification is slightly derated due to the higher measuring temperature. This fully moulded and colour banded construction provides excellent environmental protection at a surprisingly attractive price.

Key Features

- Attractively Priced
- Fully Moulded Construction
- Colour Banded Coding
- Rugged Moulded Construction
- Wide Inductance R10 - 1000 μ H
- $\pm 2\%$, $\pm 5\%$ Selection Tolerance Possible
- Special Designs Welcome

Characteristics - Electrical

Inductance Code	Inductance (μ H)	Tolerance	Q Min	Test Freq. (L&Q) MHz	S.R.F. (Min) MHz	DCR (Max) ohms	Rated DC Current mA @ 90°C
R10	0.10	$\pm 10\%$	40	25	680	0.08	1350
R11	0.11	$\pm 5\%$	40	25	660	0.085	1309
R12	0.12	$\pm 10\%$	40	25	640	0.09	1270
R13	0.13	$\pm 5\%$	38	25	625	0.095	1239
R15	0.15	$\pm 10\%$	38	25	600	0.10	1200
R16	0.16	$\pm 5\%$	35	25	580	0.11	1151
R18	0.18	$\pm 10\%$	35	25	550	0.12	1105
R20	0.20	$\pm 5\%$	33	25	530	0.13	1059
R22	0.22	$\pm 10\%$	33	25	510	0.14	1025
R24	0.24	$\pm 5\%$	33	25	475	0.15	986
R27	0.27	$\pm 10\%$	33	25	430	0.16	960
R30	0.30	$\pm 5\%$	30	25	420	0.19	876
R33	0.33	$\pm 10\%$	30	25	410	0.22	815
R36	0.36	$\pm 5\%$	30	25	385	0.26	749
R39	0.39	$\pm 10\%$	30	25	365	0.30	700
R43	0.43	$\pm 5\%$	30	25	345	0.325	670
R47	0.47	$\pm 10\%$	30	25	330	0.35	650
R51	0.51	$\pm 5\%$	30	25	310	0.42	589
R56	0.56	$\pm 10\%$	30	25	300	0.50	545
R62	0.62	$\pm 5\%$	28	25	290	0.55	515
R68	0.68	$\pm 10\%$	28	25	275	0.60	495
R75	0.75	$\pm 5\%$	28	25	265	0.71	453
R82	0.82	$\pm 10\%$	28	25	250	0.85	415
R91	0.91	$\pm 5\%$	25	25	240	0.925	397
1R0	1.0	$\pm 10\%$	25	25	230	1.00	385
1R1	1.1	$\pm 5\%$	25	7.9	165	0.17	607
1R2	1.2	$\pm 10\%$	25	7.9	150	0.18	590
1R3	1.3	$\pm 5\%$	28	7.9	145	0.20	560
1R5	1.5	$\pm 10\%$	28	7.9	140	0.22	535
1R6	1.6	$\pm 5\%$	30	7.9	135	0.25	501
1R8	1.8	$\pm 10\%$	30	7.9	125	0.30	455
2R0	2.0	$\pm 5\%$	30	7.9	120	0.35	425
2R2	2.2	$\pm 10\%$	30	7.9	115	0.40	395
2R4	2.4	$\pm 5\%$	37	7.9	109	0.46	380
2R7	2.7	$\pm 10\%$	37	7.9	100	0.55	355
3R0	3.0	$\pm 5\%$	45	7.9	95	0.70	299
3R3	3.3	$\pm 10\%$	45	7.9	90	0.85	270
3R6	3.6	$\pm 5\%$	45	7.9	85	0.925	260
3R9	3.9	$\pm 10\%$	45	7.9	80	1.00	250
4R3	4.3	$\pm 5\%$	45	7.9	77	1.10	240
4R7	4.7	$\pm 10\%$	45	7.9	75	1.20	230
5R1	5.1	$\pm 5\%$	50	7.9	69	1.47	216
5R6	5.6	$\pm 10\%$	50	7.9	65	1.80	185
6R2	6.2	$\pm 5\%$	50	7.9	62	1.90	180
6R8	6.8	$\pm 10\%$	50	7.9	60	2.00	180
7R5	7.5	$\pm 5\%$	50	7.9	57	2.35	165
8R2	8.2	$\pm 10\%$	55	7.9	55	2.70	155
9R1	9.1	$\pm 5\%$	55	7.9	52	3.00	145
100	10	$\pm 10\%$	55	7.9	50	3.70	130
110	11	$\pm 5\%$	45	2.5	45	2.60	156
120	12	$\pm 10\%$	45	2.5	40	2.70	155
130	13	$\pm 5\%$	45	2.5	38	2.80	150
150	15	$\pm 10\%$	45	2.5	35	2.80	150
160	16	$\pm 5\%$	45	2.5	33	2.90	147

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**Characteristics -
Electrical (continued)**

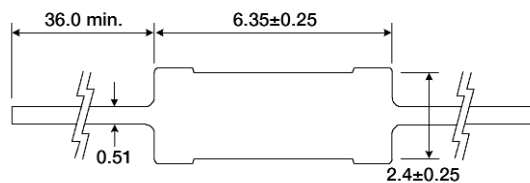
Inductance Code	Inductance (µH)	Tolerance	Q Min	Test Freq. (L&Q) MHz	S.R.F. (Min) MHz	DCR (Max) ohms	Rated DC Current mA @ 90°C
180	18	±10%	50	2.5	30	3.1	145
200	20	±5%	50	2.5	27.5	3.2	142
220	22	±10%	50	2.5	25	3.3	140
240	24	±5%	50	2.5	23	3.4	137
270	27	±10%	50	2.5	20	3.5	135
300	30	±5%	45	2.5	22	3.3	132
330	33	±10%	45	2.5	24	3.4	130
360	36	±5%	45	2.5	23	3.5	127
390	39	±10%	45	2.5	22	3.6	125
430	43	±5%	45	2.5	21	4.1	116
470	47	±10%	45	2.5	20	4.5	110
510	51	±5%	45	2.5	19	5.0	105
560	56	±10%	45	2.5	18	5.7	100
620	62	±5%	50	2.5	16.5	6.2	94
680	68	±10%	50	2.5	15	6.7	92
750	75	±5%	50	2.5	14.5	7.0	89
820	82	±10%	50	2.5	14	7.3	88
910	91	±5%	50	2.5	13.5	7.7	85
101	100	±10%	50	2.5	13	8.0	84
111	110	±5%	30	0.79	12.5	11	71
121	120	±10%	30	0.79	12	13	66
131	130	±5%	30	0.79	11.5	14	63
151	150	±10%	30	0.79	11	15	61
161	160	±5%	30	0.79	10.5	16	59
181	180	±10%	30	0.79	10	17	57
201	200	±5%	30	0.79	9.5	19	54
221	220	±10%	30	0.79	9	21	52
241	240	±5%	30	0.79	8.5	23	49
271	270	±10%	30	0.79	8	25	47
301	300	±5%	30	0.79	7.5	27	46
331	330	±10%	30	0.79	7	28	45
361	360	±5%	30	0.79	6.75	32	41
391	390	±10%	30	0.79	6.5	35	40
431	430	±5%	30	0.79	6.25	39	37
471	470	±10%	30	0.79	6	42	36
511	510	±5%	30	0.79	5.5	44	35
561	560	±10%	30	0.79	5	46	35
621	620	±5%	30	0.79	4.6	53	32
681	680	±10%	30	0.79	4	60	30
751	750	±5%	30	0.79	4	63	29
821	820	±10%	30	0.79	3.8	65	29
911	910	±5%	30	0.79	3.6	69	28
102	1000	±10%	30	0.79	3.4	72	28

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**Characteristics -
Electrical (Continued)**

Construction:	Phenolic LT4 Grade1 Class B Powdered iron & ferrite LT10 Grade 1 Class A
Max. Operating Temperature:	Phenolic -55°C to +125°C Powdered Iron & ferrite -55°C to +105°C
Max. Temperature Rise:	Phenolic 35°C Powdered Iron & ferrite 15°C
Ambient Temperature:	90°C
Dielectric Withstand:	Sea Level 1000V. RMS
Lead Pull Strength:	2.27 kg
Inductance Value Range:	Phenolic R10 - 1 μ h Powdered Iron 1R1 - 27 μ h Ferrite 30 μ h - 1000 μ h
Weight:	0.5g max.

Dimensions



Manufactured to meet BS9751 N0001 pattern A but released to commercial standard.
Colour banded in accordance with MIL - C - 15305

How to Order

MSC30	180	K	T
Common Part	Inductance Value	Tolerance	Pack Style
MSC30 - Moulded Wound Inductor	See Tables on previous pages	K - $\pm 10\%$ J - $\pm 5\%$	T - Taped