

8. SPR Series (Unshielded Type)

Applications

DC/DC converters, etc.
Other various electronic appliances.

Features

Silver plated type, low cost design.
Available on tape and reel for auto surface mounting.



Inductance and Rated Current ranges

Part Series	Inductances range	Rated Current range
* SPR0301	1.0~390μH	1.40~0.10A
* SPR0302	1.0~470μH	2.20~0.070A
* SPR0403	1.0~1000μH	2.70~0.109A
* SPR0502	1.0~1000μH	4.00~0.14A
* SPR0503	1.0~1000μH	4.50~0.13A
* SPR0504	1.0~1000μH	5.00~0.26A
* SPR0703	1.0~1000μH	1.64~0.20A
* SPR0705	1.0~1000μH	3.40~0.30A

(Dimension data (Refer to Fig. 1))

Part Series	Inductances range	Rated Current range
* SPR0603	1.5~470μH	3.0~0.15A
* SPR0604	1.2~820μH	4.2~0.14A
* SPR0805	1.5~4700μH	6.0~0.08A
* SPR1006	1.5~4700μH	6.4~0.10A

(Dimension data (Refer to Fig. 2))

Characteristics

Rated DC Current :

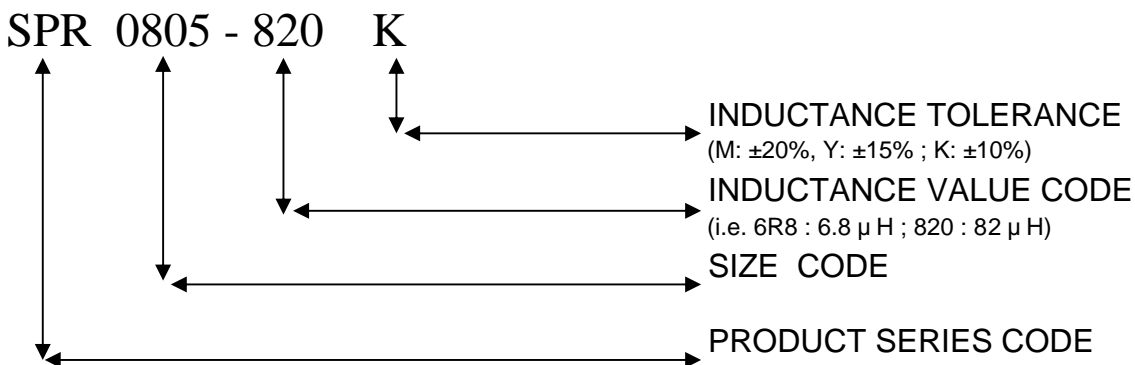
The inductance becomes 10% lower than its initial value or temperature of coil increases to T=40 . (Ta=25)

Operating temperature range : -40 ~+125 .

Test equipment (Electrical specifications at 25) :

L: HP4284A LCR meter; DCR: Milli-ohm meter.

Part Numbering System



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Dimensions (mm)

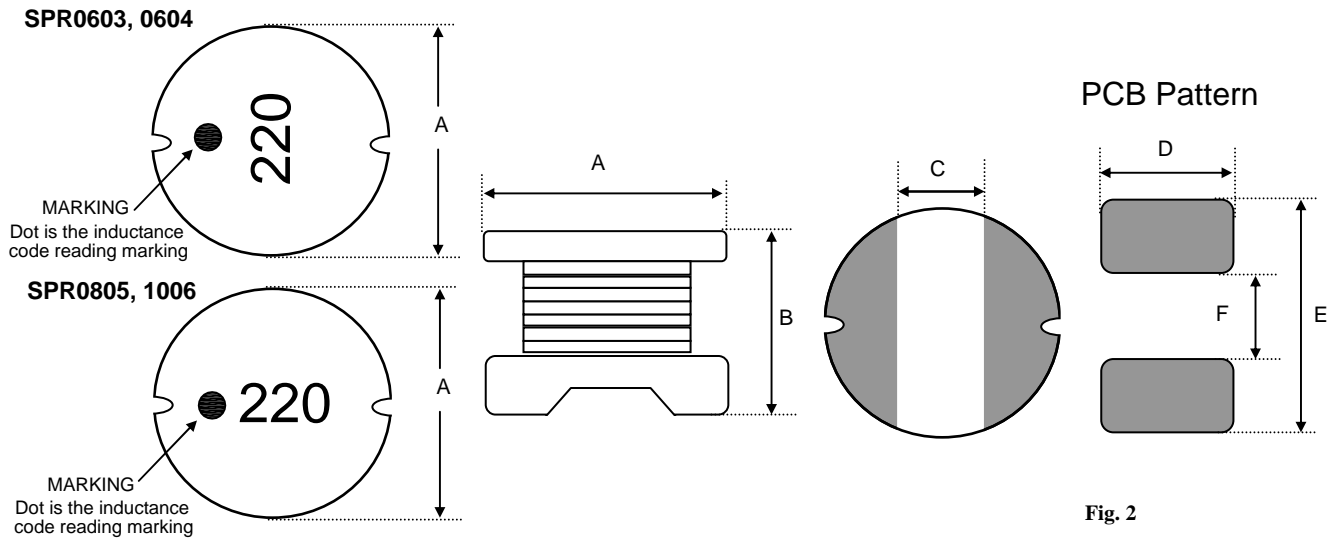


Fig. 2

Series	A	B	C (ref.)	D (ref.)	E (ref.)	F (ref.)
SPR0603	5.60±0.20	3.70±0.30	2.30	5.80	6.00	1.70
SPR0604	5.60±0.20	4.50±0.30	2.30	5.80	6.00	1.70
SPR0805	7.50±0.30	5.00±0.30	2.60	8.00	7.80	2.40
SPR1006	9.50±0.30	5.50±0.30	2.90	10.00	10.00	2.80

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Electrical Characteristics

SPR 0603 / 0604 / 0805 / 1006 TYPE

Inductance value code	L (μH)	Tol.	DC Resistance () Max.				Rated DC current (A) Max.			
			0603	0604	0805	1006	0603	0604	0805	1006
1R2	1.2	M	-	0.020	-	-	-	4.20	-	-
1R5	1.5	M	0.040	0.024	0.015	0.018	3.00	3.60	6.00	6.40
2R2	2.2	M	-	0.031	-	0.021	-	2.80	-	5.40
2R5	2.5	M	0.045	-	0.020	-	2.35	-	5.00	-
2R7	2.7	M	-	0.055	-	-	-	2.30	-	-
3R3	3.3	M	0.048	0.060	0.022	0.024	2.20	2.00	4.60	5.00
3R9	3.9	M	0.050	0.065	0.024	0.027	2.10	1.90	4.40	4.60
4R7	4.7	M	0.066	0.070	0.033	0.036	1.80	1.80	3.70	4.00
5R0	5.0	M	0.070	-	-	-	1.60	-	-	-
5R6	5.6	M	-	0.075	0.035	0.040	-	1.70	3.50	3.80
6R8	6.8	M	0.110	0.080	0.040	0.044	1.38	1.60	3.20	3.40
7R5	7.5	M	0.120	-	-	-	1.29	-	-	-
8R2	8.2	M	-	0.090	0.050	0.048	-	1.50	2.80	3.00
100	10	M	0.150	0.100	0.070	0.060	1.14	1.45	2.30	2.60
120	12	M	0.160	0.120	0.080	0.070	1.02	1.40	2.00	2.45
150	15	M*	0.180	0.140	0.090	0.080	0.93	1.30	1.80	2.25
180	18	M*	0.250	0.150	0.100	0.090	0.82	1.25	1.60	2.15
220	22	M*	0.275	0.190	0.110	0.100	0.75	1.10	1.50	1.95
270	27	M*	0.300	0.220	0.120	0.110	0.67	1.00	1.30	1.75
330	33	K	0.450	0.250	0.140	0.120	0.61	0.88	1.20	1.50
390	39	K	0.460	0.320	0.160	0.140	0.56	0.80	1.10	1.35
470	47	K	0.550	0.370	0.200	0.170	0.52	0.72	1.00	1.25
560	56	K	0.615	0.420	0.240	0.190	0.48	0.68	0.94	1.15
680	68	K	0.720	0.520	0.300	0.220	0.44	0.62	0.85	1.10
820	82	K	0.840	0.600	0.370	0.250	0.40	0.58	0.78	1.00
101	100	K	0.950	0.700	0.450	0.350	0.38	0.52	0.72	0.97
121	120	K	1.100	0.930	0.480	0.400	0.36	0.48	0.66	0.89
151	150	K	1.430	1.100	0.680	0.470	0.32	0.40	0.58	0.78
181	180	K	1.600	1.380	0.770	0.630	0.30	0.38	0.51	0.72
221	220	K	2.000	1.570	0.960	0.730	0.26	0.35	0.49	0.66
271	270	K	2.400	1.880	1.110	0.970	0.24	0.32	0.42	0.57
331	330	K	3.200	2.250	1.260	1.150	0.20	0.27	0.40	0.52
391	390	K	3.400	2.480	1.770	1.300	0.18	0.25	0.36	0.48
471	470	K	4.550	3.300	1.960	1.480	0.15	0.21	0.34	0.42
561	560	K	-	4.000	2.500	1.900	-	0.18	0.30	0.33
681	680	K	-	4.650	2.800	2.250	-	0.16	0.28	0.28
821	820	K	-	5.200	4.000	2.550	-	0.14	0.23	0.24
102	1000	K	-	-	4.500	3.100	-	-	0.21	0.23
122	1200	K	-	-	6.800	4.200	-	-	0.17	0.21
152	1500	K	-	-	8.000	5.000	-	-	0.15	0.19
182	1800	K	-	-	9.200	6.800	-	-	0.14	0.17
222	2200	K	-	-	10.000	7.600	-	-	0.13	0.16
272	2700	K	-	-	11.800	11.600	-	-	0.12	0.14
332	3300	K	-	-	16.500	13.500	-	-	0.10	0.12
392	3900	K	-	-	18.000	14.800	-	-	0.09	0.11
472	4700	K	-	-	21.000	18.000	-	-	0.08	0.10

1. Test Frequency : 1 KHz
2. Tolerance of Inductance : *15μH~27μH @±15%(Y) for SPR0604 series
3. Rated DC Current : the inductance becomes 10% lower than its initial value or temperature of coil increases to T=40 . (Ta=25)
4. Operating temperature range : -40 ~+125 .