

7. SPR Series (Unshielded Type)

Applications

- Handheld communications.
- Personal computers.
- DC/DC converters, etc.
- Other various electronic appliances.



Features

- Compact, low profile with low Rdc and large current.
- Ideal inductors for DC-DC conversion.
- 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
* 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. 1))

Part Series	Inductances range	Rated Current range
* SPR0301	1.0~390μH	1.40~0.10A
* SPR0302	1.0~330μH	2.20~0.090A
* SPR0403	1.0~680μH	2.70~0.128A
* SPR0502	1.0~470μH	4.00~0.15A
* SPR0503	1.0~1000μH	4.50~0.13A
* SPR0504	1.0~680μH	5.00~0.28A
* SPR0703	1.0~1000μH	1.64~0.20A
* SPR0705	1.0~1000μH	3.40~0.30A
* SPR1004	1.0~560μH	8.70~0.32A
* SPR1005	1.2~1000μH	8.63~0.20A
* SPR1007	1.0~1000μH	9.50~0.46A

(Dimension data (Refer to Fig. 2))

Test equipment:

L: HP4284A or HP4285A LCR meter.

DCR tested by Milli-ohm meter.

Electrical specification at 25 .

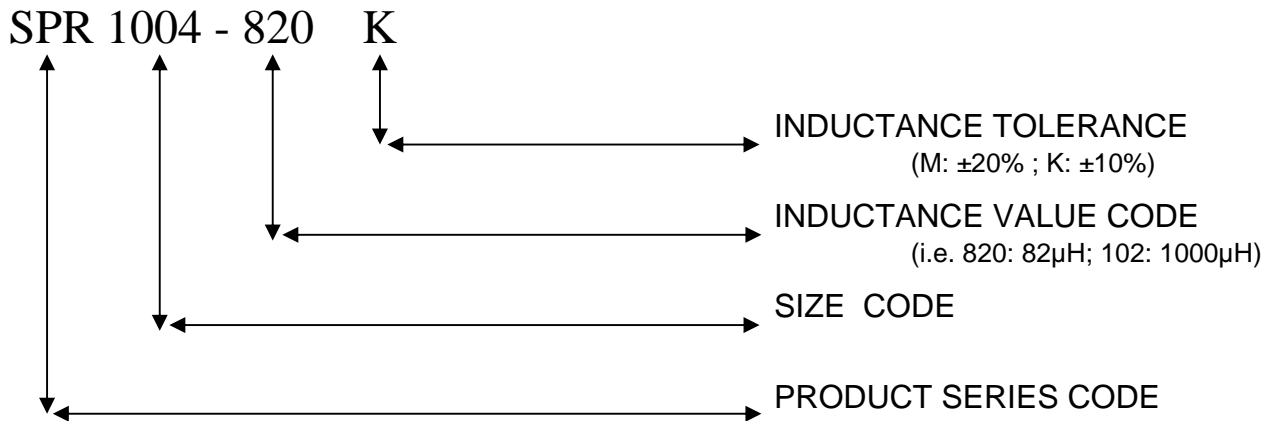
7. SPR Series (Unshielded Type)

Characteristics

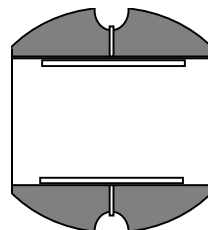
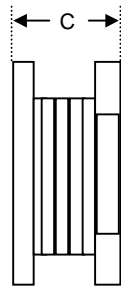
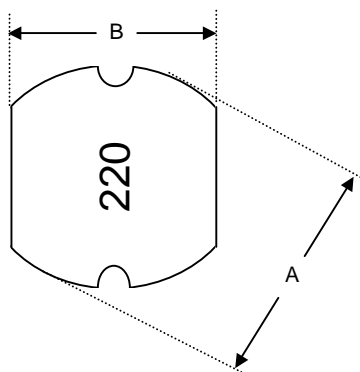
Rated DC current: Base on the inductance is 90% more than its initial value and temperature rise $T=40$ lower.

Operating Temperature: -40~+85 .

Part Numbering System



Dimensions (mm)



PCB Pattern

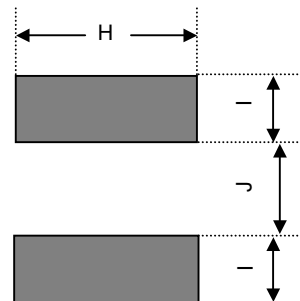


Fig. 2

Series	A	B	C (Max.)	H	I	J
SPR0301	3.5 \pm 0.3	3.0 \pm 0.3	1.40	3.50	1.60	0.8
SPR0302	3.5 \pm 0.3	3.0 \pm 0.3	2.40	3.50	1.60	0.8
SPR0403	4.5 \pm 0.3	4.0 \pm 0.3	3.50	4.50	1.75	1.5
SPR0502	5.8 \pm 0.3	5.2 \pm 0.3	2.80	5.50	2.15	1.7
SPR0503	5.8 \pm 0.3	5.2 \pm 0.3	3.50	5.50	2.15	1.7
SPR0504	5.8 \pm 0.3	5.2 \pm 0.3	4.85	5.50	2.15	1.7
SPR0703	7.8 \pm 0.3	7.0 \pm 0.3	4.00	7.50	3.00	2.0
SPR0705	7.8 \pm 0.3	7.0 \pm 0.3	5.50	7.50	3.00	2.0
SPR1004	10.0 \pm 0.4	9.0 \pm 0.3	4.50	9.50	3.75	2.5
SPR1005	10.0 \pm 0.4	9.0 \pm 0.3	5.80	9.50	3.75	2.5
SPR1007	10.0 \pm 0.4	9.0 \pm 0.3	7.50	9.50	3.75	2.5

7. SPR Series (Unshielded Type)**Electrical Characteristics****SPR 1004 / 1005 / 1007 TYPE**

Inductance value code	L (μH)	DC Resistance () Max.			Rated DC current (A) Max.		
		1004	1005	1007	1004	1005	1007
1R0	1.0	0.012	-	0.008	8.70	-	9.50
1R2	1.2	0.014	0.009	-	8.00	8.63	-
1R5	1.5	0.016	0.010	-	7.48	8.00	-
1R8	1.8	0.018	-	0.011	6.80	-	8.60
2R2	2.2	0.020	0.014	0.012	5.40	6.80	7.20
2R7	2.7	0.024	-	-	3.20	-	-
3R3	3.3	0.028	0.018	0.016	2.85	3.05	6.80
3R9	3.9	0.030	-	0.017	2.80	-	6.35
4R7	4.7	0.038	0.020	0.019	2.75	2.90	5.45
5R6	5.6	0.040	-	0.024	2.70	-	4.30
6R8	6.8	0.042	0.040	0.035	2.65	2.75	3.52
8R2	8.2	0.048	0.050	0.045	2.60	2.70	3.51
100	10	0.053	0.060	0.060	2.38	2.60	3.50
120	12	0.061	0.070	0.070	2.13	2.45	3.40
150	15	0.070	0.080	0.080	1.87	2.27	3.10
180	18	0.081	0.090	0.090	1.73	2.15	3.00
220	22	0.088	0.100	0.100	1.60	1.95	2.60
270	27	0.100	0.110	0.110	1.44	1.76	2.40
330	33	0.120	0.120	0.120	1.26	1.50	2.30
390	39	0.151	0.140	0.140	1.20	1.37	2.10
470	47	0.170	0.170	0.170	1.10	1.28	1.95
560	56	0.199	0.190	0.190	1.01	1.17	1.85
680	68	0.223	0.220	0.220	0.91	1.11	1.65
820	82	0.252	0.250	0.250	0.85	1.00	1.50
101	100	0.344	0.350	0.350	0.74	0.97	1.40
121	120	0.396	0.400	0.400	0.69	0.89	1.30
151	150	0.544	0.470	0.470	0.61	0.78	1.20
181	180	0.621	0.630	0.630	0.56	0.72	1.00
221	220	0.721	0.730	0.730	0.53	0.66	0.95
271	270	0.949	0.970	0.970	0.45	0.57	0.90
331	330	1.100	1.150	1.150	0.42	0.52	0.80
391	390	1.245	1.300	1.300	0.38	0.48	0.75
471	470	1.526	1.480	1.480	0.35	0.42	0.65
561	560	1.904	1.900	1.900	0.32	0.33	0.60
681	680	-	2.250	2.250	-	0.28	0.50
821	820	-	2.550	2.550	-	0.24	0.48
102	1000	-	3.490	3.000	-	0.20	0.46

Test Freq.:

1.0μH-8.2μH @100KHz 0.25V, 10μH-82μH @2.52MHz 0.25V, 100μH-1000μH @1KHz 0.25V

Tolerance of Inductance:

1.0μH-8.2μH (M)±20% , 10μH-1000μH (K)±10% , (M)±20%