

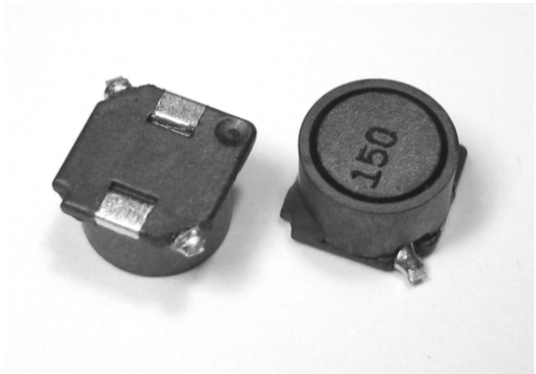
5. SPS Series (Shielded Type)

Applications

- GPS receiver module.
- Smart Home Systems.
- Other various electronic appliances.

Features

- Available in magnetically shielded.
- SPS1608 used ceramic base with gold-plating.
- SPS3316 / 5022 designed for the higher current requirements of portable computers.



Inductance and Rated Current ranges

Part Series	Inductances range	Rated Current range
* SPS1608	1.0~10000 μ H	3.00~0.02A (Irms) ; 1.40~0.02A (Isat)
* SPS3316	1.0~1000 μ H	5.80~0.35A (Irms) ; 5.60~0.32A (Isat)
* SPS5022	1.0~1000 μ H	20.00~0.90A (Irms) ; 20.00~0.80A (Isat)

(Dimension data (Refer to Fig. 1))

Part Series	Inductances range	Rated Current range
* SPS0804	5.0~470 μ H	1.70~0.16A
* SPS0805	2.2~1000 μ H	2.50~0.15A
* SPS1005	1.0~3300 μ H	5.80~0.18A

(Dimension data (Refer to Fig. 2))

Part Series	Inductances range	Rated Current range
* SPS0603	1.5~1000 μ H	2.20~0.10A
* SPS0604	1.5~1000 μ H	2.80~0.12A

(Dimension data (Refer to Fig. 3))

Part Series	Inductances range	Rated Current range
* SPS6028	1.0~1000 μ H	3.80~0.11A (Irms) ; 3.00~0.09A (Isat)
* SPS6038	1.0~1000 μ H	3.70~0.14A (Irms) ; 4.00~0.13A (Isat)
* SPS7032	3.3~1000 μ H	2.40~0.15A (Irms) ; 2.20~0.14A (Isat)
* SPS7045	1.0~680 μ H	5.20~0.40A (Irms) ; 6.00~0.20A (Isat)

(Dimension data (Refer to Fig. 4))

Part Series	Inductances range	Rated Current range
* SPS1205	2.5~820 μ H	5.00~0.30A
* SPS1206	2.5~1500 μ H	6.20~0.20A
* SPS1208	2.5~1500 μ H	7.80~0.36A

(Dimension data (Refer to Fig. 5))

Part Series	Inductances range	Rated Current range
* SPS1240	1.0~1000 μ H	9.30~0.42A (Irms) ; 9.20~0.40A (Isat)
* SPS1260	1.0~1000 μ H	9.40~0.68A (Irms) ; 10.00~0.60A (Isat)
* SPS1280	1.1~1000 μ H	10.20~0.68A (Irms) ; 14.00~0.80A (Isat)

(Dimension data (Refer to Fig. 6))

5. SPS Series (Shielded Type)

Characteristics

Test Frequency : 1KHz

- a). SPS1240, SPS1608, SPS3316, SPS5022: @100KHz 0.1V
- b). SPS1260: 1.0 μ H~8.2 μ H @100KHz 0.1V, 10 μ H~1000 μ H@1KHz 1V
- c). SPS1280: 1.1 μ H~8.2 μ H @100KHz 1V, 10 μ H~1000 μ H@1KHz 1V

Operating temperature range : -40 ~+125 .

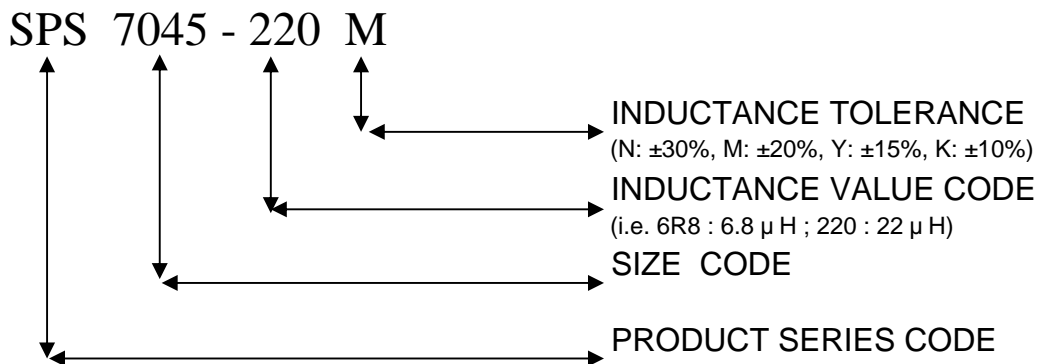
Test equipment :

L: HP4284A LCR meter or equivalent.

DCR: Milli-ohm meter or equivalent.

Electrical specifications at 25 .

Part Numbering System



5. SPS Series (Shielded Type)

Dimensions (mm)

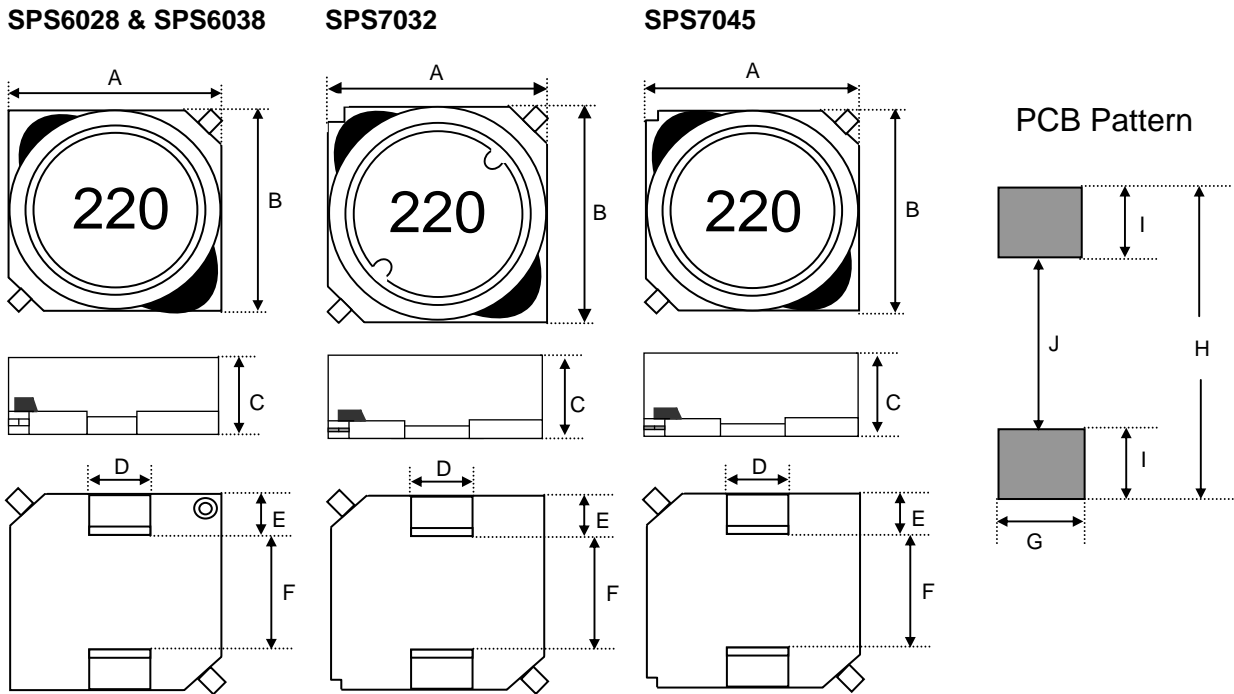


Fig. 4

Series	A	B	C	D	E (typ.)	F	G (ref.)	H (ref.)	I (ref.)	J (ref.)
SPS6028	6.00±0.30	6.00±0.30	2.80±0.30	2.00±0.30	1.90	2.20 ref	2.40	6.70	2.30	2.10
SPS6038	6.00±0.30	6.00±0.30	3.80±0.30	2.00±0.30	1.90	2.20 ref	2.40	6.70	2.30	2.10
SPS7032	7.00±0.30	7.00±0.30	3.20±0.20	2.00 typ	1.50	4.00 typ	2.40	7.80	1.80	4.20
SPS7045	7.00±0.30	7.00±0.30	4.50±0.30	2.00 typ	1.50	4.00 typ	2.40	7.80	1.80	4.20

5. SPS Series (Shielded Type)

Electrical Characteristics

SPS 6028 / 6038 / 7032 / 7045 TYPE

Inductance value code	L (μH)	Tol.	DC Resistance () Max.				Rated DC current (A) Max.							
							I rms				I sat			
			6028	6038	7032	7045	6028	6038	7032	7045	6028	6038	7032	7045
1R0	1.0	M	0.022	0.018	-	0.020	3.80	3.70	-	5.20	3.00	4.00	-	6.00
1R5	1.5	M	0.025	0.020	-	-	3.20	3.40	-	-	2.50	3.40	-	-
2R2	2.2	M	0.032	0.030	-	0.022	3.00	2.70	-	4.20	2.20	2.65	-	4.20
3R3	3.3	M	0.044	0.033	0.027	0.027	1.92	2.50	2.40	3.50	1.55	2.20	2.20	3.30
4R7	4.7	M	0.050	0.040	0.042	0.033	1.80	2.20	2.00	3.30	1.35	1.90	2.00	2.80
6R8	6.8	M	0.070	0.050	0.054	0.036	1.45	2.00	1.60	3.10	1.20	1.60	1.80	2.40
100	10	M	0.105	0.065	0.068	0.042	1.20	1.80	1.40	2.70	1.00	1.30	1.60	1.90
150	15	M	0.140	0.100	0.095	0.062	1.00	1.15	1.10	2.20	0.80	1.10	1.20	1.50
220	22	M	0.220	0.150	0.135	0.082	0.80	1.00	0.96	1.90	0.65	0.85	1.05	1.30
330	33	M	0.280	0.220	0.200	0.115	0.65	0.85	0.76	1.60	0.55	0.65	0.86	1.00
470	47	M	0.380	0.300	0.270	0.150	0.55	0.70	0.67	1.40	0.48	0.55	0.70	0.90
680	68	M	0.600	0.390	0.380	0.210	0.45	0.60	0.60	1.20	0.38	0.45	0.67	0.75
101	100	M	0.840	0.570	0.540	0.300	0.38	0.46	0.45	1.00	0.31	0.38	0.50	0.60
151	150	M	1.200	0.900	0.800	0.480	0.30	0.34	0.37	0.80	0.26	0.32	0.38	0.50
221	220	M	1.700	1.250	1.300	0.700	0.25	0.29	0.30	0.64	0.22	0.27	0.32	0.40
331	330	M	2.450	1.850	1.900	0.730	0.20	0.23	0.22	0.60	0.17	0.22	0.24	0.27
471	470	M	3.600	2.700	2.400	1.100	0.17	0.20	0.20	0.50	0.14	0.19	0.20	0.23
681	680	M	5.400	3.800	3.750	1.600	0.13	0.17	0.16	0.40	0.11	0.15	0.15	0.20
102	1000	M	8.200	5.800	5.400	-	0.11	0.14	0.15	-	0.09	0.13	0.14	-

1. Test Frequency: 1 KHz

2a). Irms: base on temp. rise <Max.> (SPS6028, SPS6038, SPS7045: 40 ; SPS7032: 30)

2b). Isat: base on L/L0A <Max.> (SPS6028, SPS6038: 25%; SPS7032: 10%; SPS7045: 1.0μH~220μH 10%, 330μH~680μH 25%)

3. Operating temperature range : -40 ~+125 .