2. SPU Series (Shielded Type)

Applications

- Hand Phone of new generation.
- Personal computers.
- Other various electronic appliances.

Features

- Small size with the electrode attached to the ferrite RI core directly.
- Magnetically shielded construction.
- Ideal inductor for DC-DC conversion in notebook computer, Step-up or Step-down converters, etc.

Inductance and Rated Current ranges

Part Series	Inductances range	Rated Current range
* SPU0302	0.47~1800µH	1.84~0.036A
* SPU0303	1.00~3300µH	1.90~0.026A
* SPU0415	1.00~100µH	1.50~0.100A
* SPU0502	0.47~820µH	2.33~0.120A
* SPU0503	0.47~2500µH	4.82~0.045A
* SPU0603	1.00~3300µH	4.70~0.078A

(Dimension data (Refer to Fig. 1))

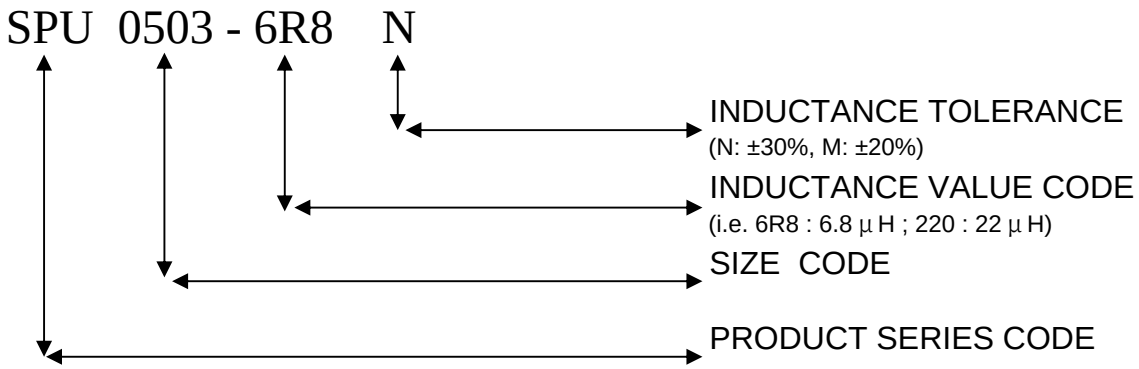
Part Series	Inductances range	Rated Current range
* SPU0830	1.0~100µH	6.50~0.75A
* SPU0840	1.8~100µH	6.50~0.88A
* SPU0845	1.0~100µH	8.50~1.30A

(Dimension data (Refer to Fig. 2))

Characteristics

- Rated DC Current : The current when the inductance becomes 30% lower than its initial value.
  (For SPU0830, 0840, 0845 series : the inductance becomes 35% lower than its initial value.)
- Operating temperature range : -40℃~+105℃.
- Test equipment :
  L: HP4284A LCR meter.
  DCR: Milli-ohm meter.
  Electrical specifications at 25℃.

Part Numbering System



2. SPU Series (Shielded Type)

Dimensions (mm)

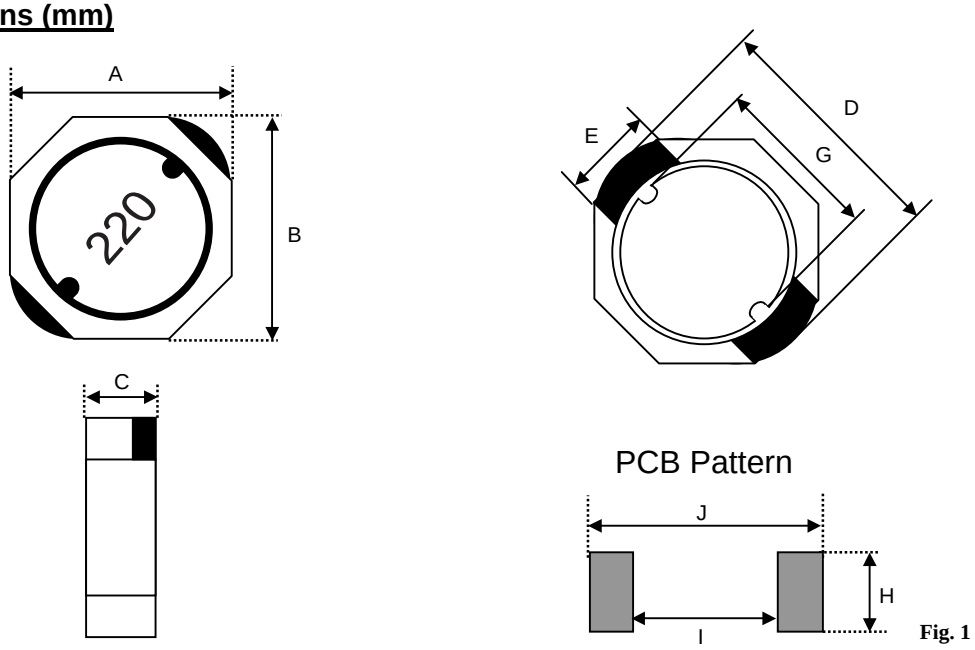


Fig. 1

Codes	A	B	C (Max)	D	E	G	H	I	J
SPU0302	3.85±0.30	3.85±0.30	2.00	3.90±0.20	1.60	3.20	1.90	3.00	4.55
SPU0303	3.85±0.30	3.85±0.30	3.00	3.90±0.20	1.60	3.20	1.90	3.00	4.55
SPU0415	3.85±0.30	3.85±0.30	1.50	4.80 max.	1.60	3.00	2.00	2.60	5.20
SPU0502	5.30max	5.30max	2.00	5.70±0.40	1.60	4.20	1.90	3.90	5.70
SPU0503	5.30max	5.30max	3.00	5.70±0.40	1.60	4.20	1.90	3.90	5.70
SPU0603	5.90±0.20	5.90±0.20	3.00	6.40±0.30	2.40	4.70	2.70	4.40	6.50

2. SPU Series (Shielded Type)

Electrical Characteristics

SPU 0502 / 0503 / 0603 TYPE

Inductance value code	L (μH)	Tol.	DC Resistance (Ω) Max.			Rated DC Current (A) Max.		
			0502	0503	0603	0502	0503	0603
R47	0.47	N	0.015	0.010	-	2.330	4.820	-
R82	0.82	N	-	-	0.013	-	-	4.800
1R0	1.0	N	0.024	0.015	0.014	2.270	4.000	4.700
1R1	1.1	N	-	0.020	-	-	3.870	-
1R2	1.2	N	0.044	0.022	0.016	2.150	3.800	3.900
1R5	1.5	N	0.045	0.026	0.018	2.000	3.000	3.520
1R8	1.8	N	-	-	0.019	-	-	3.250
2R0	2.0	N	0.046	0.027	0.022	1.900	2.920	2.950
2R2	2.2	N	0.059	0.029	0.022	1.630	2.410	2.950
2R5	2.5	N	-	-	0.024	-	-	2.750
3R0	3.0	N	-	-	0.027	-	-	2.550
3R3	3.3	N	0.073	0.040	0.030	1.340	1.950	2.450
3R5	3.5	N	0.073	0.040	-	1.340	1.950	-
3R9	3.9	N	-	0.042	0.034	-	1.930	2.350
4R1	4.1	N	0.087	-	-	1.140	-	-
4R7	4.7	N	0.087	0.052	0.042	1.140	1.600	2.250
5R6	5.6	N	-	0.052	0.048	-	1.600	2.050
6R2	6.2	N	-	0.062	-	-	1.550	-
6R8	6.8	N	0.105	0.068	0.054	0.950	1.510	1.850
8R2	8.2	N	0.139	0.084	0.058	0.900	1.380	1.650
100	10	M	0.150	0.090	0.065	0.760	1.330	1.450
120	12	M	-	0.120	0.082	-	1.060	1.350
150	15	M	0.210	0.142	0.096	0.630	1.050	1.250
180	18	M	0.270	0.192	0.110	0.600	0.900	1.150
220	22	M	0.275	0.208	0.140	0.560	0.860	0.980
270	27	M	0.452	0.222	0.170	0.480	0.750	0.900
330	33	M	0.455	0.257	0.210	0.440	0.720	0.800
390	39	M	-	0.320	0.240	-	0.640	0.720
470	47	M	0.730	0.352	0.280	0.350	0.620	0.700
560	56	M	-	0.459	0.340	-	0.530	0.660
680	68	M	0.935	0.525	0.410	0.300	0.510	0.580
820	82	M	1.300	0.770	0.490	0.270	0.480	0.520
101	100	M	1.500	0.801	0.550	0.230	0.430	0.460
121	120	M	1.910	0.850	0.700	0.220	0.340	0.420
151	150	M	2.680	1.100	0.780	0.210	0.260	0.360
181	180	M	3.040	1.190	0.960	0.200	0.240	0.340
221	220	M	3.520	1.530	1.080	0.195	0.200	0.320
271	270	M	4.380	-	1.360	0.193	-	0.280
331	330	M	5.560	2.030	1.820	0.190	0.190	0.240
391	390	M	6.850	3.000	2.050	0.185	0.160	0.220
471	470	M	7.820	3.500	2.580	0.180	0.150	0.200
561	560	M	-	4.080	3.160	-	0.140	0.180
681	680	M	-	-	4.040	-	-	0.160
821	820	M	15.000	-	4.900	0.120	-	0.140
102	1000	M	-	-	6.000	-	-	0.130
122	1200	M	-	8.500	7.600	-	0.070	0.120
152	1500	M	-	10.000	9.440	-	0.065	0.100
182	1800	M	-	13.150	11.700	-	0.062	0.098
222	2200	M	-	19.000	13.400	-	0.050	0.095
252	2500	M	-	20.000	-	-	0.045	-
272	2700	M	-	-	17.300	-	-	0.086
332	3300	M	-	-	22.100	-	-	0.078

1. Test Frequency :
   0.47μH~8.2μH @100KHz 0.25V ; 10μH~3300μH @1KHz 0.25V
2. Test equipment :
   L/Q : HP4284A LCR meter
   DCR : Milli-ohm meter.
3. Rated DC current : The current when the inductance becomes 30% lower than its initial value.
4. Operating temperature range : -40℃~+105℃.