

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.
- Excellent property with high saturation for surface mounting.
- 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
* SPU3017	2.2~47 μ H	1.70~0.36A (I _{rms}) ; 0.98~0.21A (I _{sat})
* SPU3018	1.5~15 μ H	1.65~0.50A (I _{rms}) ; 1.85~0.56A (I _{sat})
* SPU3028	10~100 μ H	1.20~0.25A (I _{rms}) ; 0.86~0.25A (I _{sat})

(Dimension data (Refer to Fig. 1))

Part Series	Inductances range	Rated Current range
* SPU5011	1.5~100 μ H	1.80~0.20A (I _{rms}) ; 1.50~0.18A (I _{sat})
* SPU5016	1.8~100 μ H	1.75~0.30A (I _{rms}) ; 1.70~0.27A (I _{sat})
* SPU5018	1.0~100 μ H	2.80~0.32A (I _{rms}) ; 2.85~0.31A (I _{sat})
* SPU5028	1.2~100 μ H	3.50~0.47A (I _{rms}) ; 3.40~0.42A (I _{sat})

(Dimension data (Refer to Fig. 2))

Part Series	Inductances range	Rated Current range
* SPU1030	3.5~150 μ H	5.00~0.85A (I _{rms}) ; 5.20~0.84A (I _{sat})
* SPU1040	3.8~330 μ H	6.60~0.62A (I _{rms}) ; 5.80~0.60A (I _{sat})
* SPU1050	4.7~1000 μ H	5.20~0.47A (I _{rms}) ; 5.10~0.40A (I _{sat})
* SPU1065	2.8~100 μ H	6.50~1.80A (I _{rms}) ; 7.50~1.40A (I _{sat})

(Dimension data (Refer to Fig. 3))

Part Series	Inductances range	Rated Current range
* SPU0302	0.47~1800 μ H	1.84~0.036A
* SPU0303	1.00~3300 μ H	1.90~0.026A
* SPU0502	0.47~820 μ H	2.33~0.120A
* SPU0503	0.47~2500 μ H	4.82~0.045A
* SPU0603	0.82~3300 μ H	4.80~0.078A

(Dimension data (Refer to Fig. 4))

2. SPU Series (Shielded Type)

Inductance and Rated Current ranges (Cont'd)

Part Series	Inductances range	Rated Current range
* SPU0830	1.0~100μH	6.50~0.75A
* SPU0840	1.8~100μH	7.00~1.05A
* SPU0845	1.0~100μH	9.00~1.30A

(Dimension data (Refer to Fig. 5))

Characteristics

Rated DC Current : The current when the inductance becomes 35% lower than its initial value.
(For SPU0302, 0303, 0502, 0503, 0603 series : the inductance becomes 30% lower than its initial value.)

Test equipment:

L: HP4284A LCR meter @100KHz 0.1V

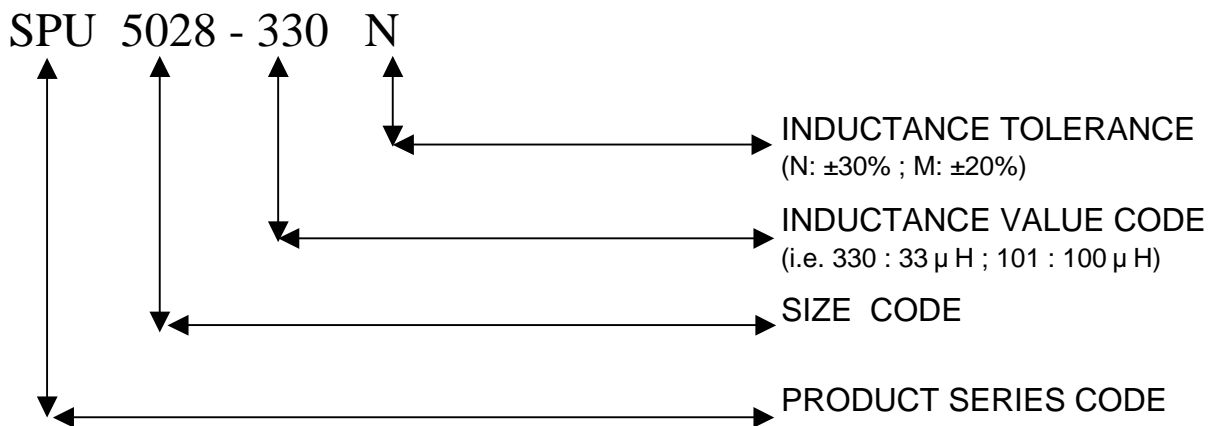
DCR Resistance: Milli-ohm meter or equivalent.

Electrical specifications at 25 .

Operating temperature range:

-40 ~+125 :

Part Numbering System



2. SPU Series (Shielded Type)

Dimensions (mm)

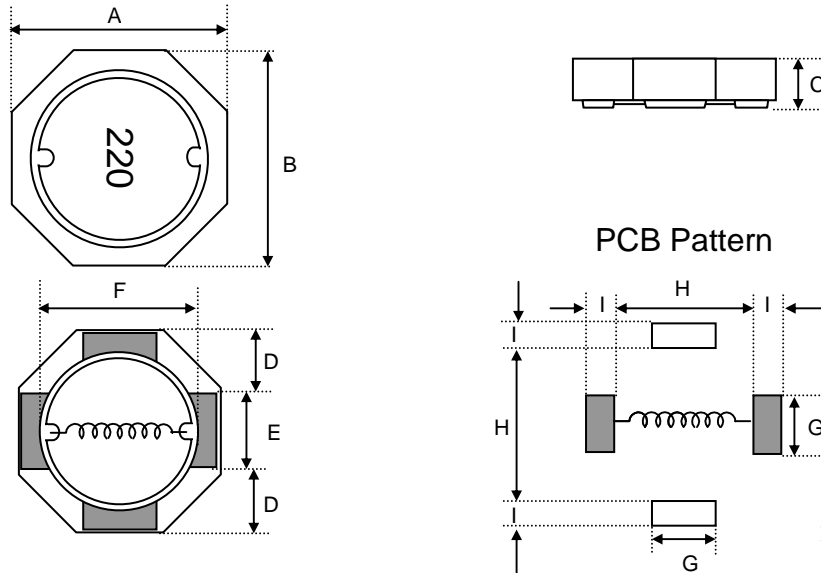


Fig. 2

Codes	A	B	C	D (typ.)	E (typ.)	F (typ.)	G (ref.)	H (ref.)	I (ref.)
SPU5011	5.20±0.20	5.20±0.20	1.10±0.10	1.70	1.80	3.90	2.00	3.70	1.10
SPU5016	5.20±0.20	5.20±0.20	1.60±0.20	1.70	1.80	3.90	2.00	3.70	1.10
SPU5018	5.20±0.20	5.20±0.20	1.80±0.20	1.70	1.80	3.90	2.00	3.70	1.10
SPU5028	5.20±0.20	5.20±0.20	2.80±0.20	1.70	1.80	3.90	2.00	3.70	1.10

2. SPU Series (Shielded Type)

Electrical Characteristics

SPU 5011 / 5016 / 5018 / 5028 TYPE

Inductance value code	L (µH)	Tol.	DC Resistance (m Ω) Max.				Rated DC current (mA) Max.							
							I rms				I sat			
			5011	5016	5018	5028	5011	5016	5018	5028	5011	5016	5018	5028
1R0	1.0	N	-	-	16.5	-	-	-	2800	-	-	-	2850	-
1R2	1.2	N	-	-	-	22.0	-	-	-	3500	-	-	-	3400
1R5	1.5	N	42.0	-	20.5	-	1800	-	2500	-	1500	-	2400	-
1R8	1.8	N	-	32.0	-	-	-	1750	-	-	-	1700	-	-
2R2	2.2	N	-	-	27.0	27.0	-	-	2300	3200	-	-	2100	2500
2R5	2.5	N	68.0	-	-	-	1300	-	-	-	1100	-	-	-
3R3	3.3	N	85.0	48.0	-	32.0	1150	1550	-	2800	940	1500	-	2100
3R5	3.5	N	-	-	42.0	-	-	-	2100	-	-	-	1700	-
4R7	4.7	N	120.0	57.0	47.0	45.0	1000	1300	2000	2200	820	1200	1550	1850
6R8	6.8	N	170.0	78.0	65.0	56.0	820	1200	1450	2000	680	1100	1200	1550
100	10.0	N	220.0	110.0	85.0	85.0	700	1000	1250	1800	580	900	1050	1400
150	15.0	N	320.0	170.0	130.0	140.0	600	800	950	1100	480	720	800	1000
220	22.0	N	500.0	250.0	210.0	210.0	500	650	680	950	400	560	650	850
330	33.0	N	700.0	375.0	290.0	260.0	380	540	660	800	300	500	560	680
470	47.0	N	1050.0	480.0	430.0	360.0	320	460	540	700	260	420	450	620
680	68.0	N	1600.0	700.0	620.0	550.0	260	360	370	560	220	330	360	460
101	100.0	N	2000.0	1050.0	780.0	800.0	200	300	320	470	180	270	310	420

1. Test Frequency: 100KHz 0.1V

2a). I rms: base on temp. rise 40 Typ. (SPU5011: 25 Max. ; SPU5018: 30 Max.)

2b). I sat: base on L/L0A = 35% Typ.