

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))

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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

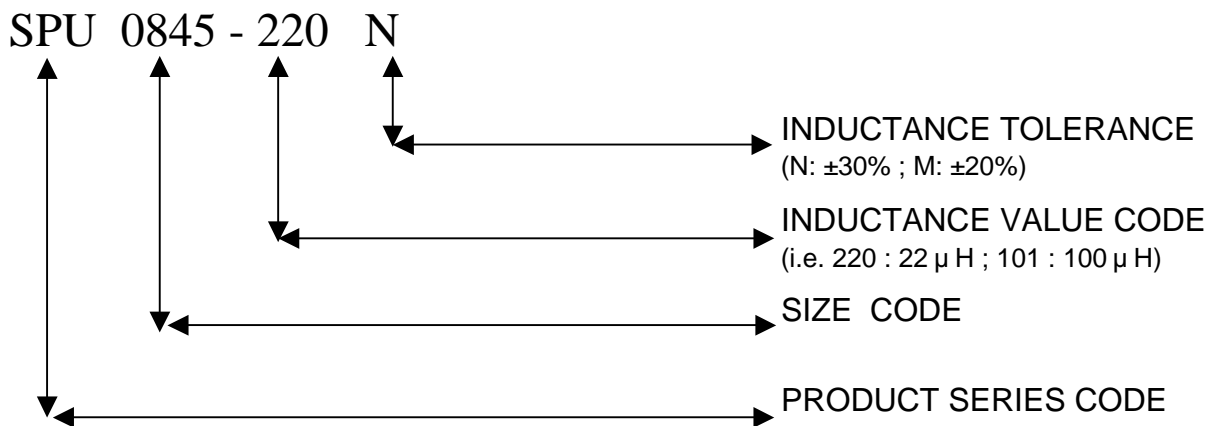
DCR Resistance: Milli-ohm meter or equivalent.

Electrical specifications at 25 .

Operating temperature range:

-40 ~+125 :

Part Numbering System



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Dimensions (mm)

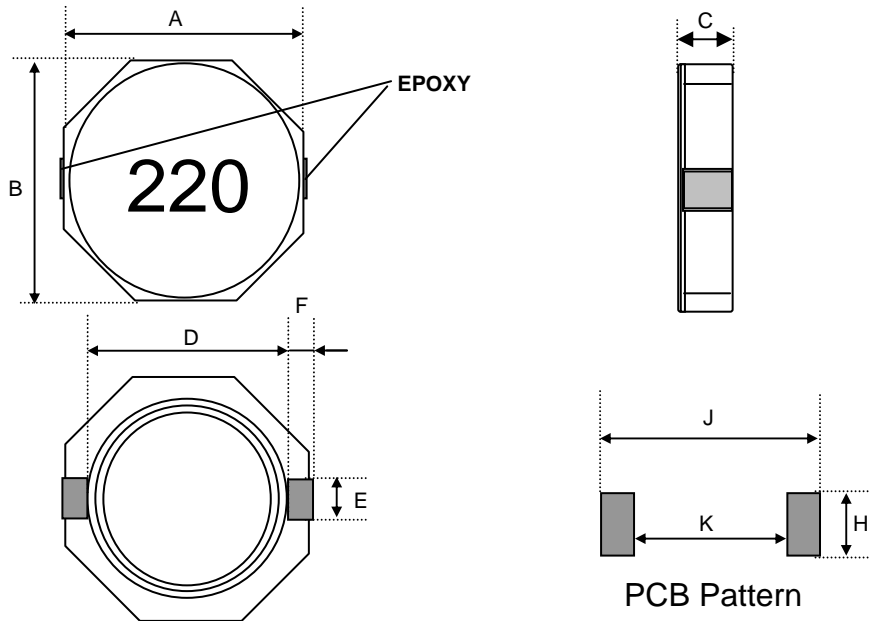


Fig. 5

Codes	A	B	C Max.	D ref.	E ref.	F ref.	H	J	K
SPU0830	8.00±0.30	8.00±0.30	3.00	6.30	2.50	1.20	2.80	10.10	6.10
SPU0840	8.00±0.30	8.00±0.30	4.00	6.30	2.50	1.20	2.80	10.10	6.10
SPU0845	8.00±0.30	8.00±0.30	4.50	6.30	2.50	1.20	2.80	10.10	6.10

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Electrical Characteristics

SPU 0830 / 0840 / 0845 TYPE

Inductance value code	L (μH)	Tol.	DC Resistance (mΩ) Max.			Rated DC Current (A) Max.		
			0830	0840	0845	0830	0840	0845
1R0	1.0	N	11.0	-	9.5	6.50	-	9.00
1R2	1.2	N	-	-	12.2	-	-	8.00
1R5	1.5	N	-	-	13.0	-	-	7.80
1R8	1.8	N	-	15.6	-	-	7.00	-
2R0	2.0	N	-	-	14.0	-	-	7.00
2R2	2.2	N	-	-	15.0	-	-	6.80
2R5	2.5	N	15.6	17.5	16.0	4.50	6.50	6.60
3R3	3.3	N	18.2	-	17.0	4.00	-	6.20
3R5	3.5	N	-	24.0	-	-	5.00	-
3R9	3.9	N	-	-	19.0	-	-	5.90
4R7	4.7	N	24.7	29.0	22.0	3.40	4.60	5.60
6R0	6.0	N	-	32.0	-	-	4.20	-
6R8	6.8	N	-	-	25.0	-	-	4.40
7R3	7.3	N	39.0	-	-	2.80	-	-
100	10	N	47.0	48.0	36.0	2.50	3.00	4.00
150	15	N	69.0	67.0	53.0	1.90	2.75	2.90
180	18	N	-	-	72.0	-	-	2.70
220	22	N	99.0	105.0	75.0	1.60	2.30	2.60
270	27	N	-	-	100.0	-	-	2.25
330	33	N	156.0	157.0	125.0	1.30	1.75	2.20
470	47	N	195.0	189.0	150.0	1.15	1.52	1.80
680	68	N	286.0	290.0	240.0	0.92	1.30	1.50
101	100	N	430.0	410.0	360.0	0.75	1.05	1.30

1. Test Frequency :
SPU0830 series: 100KHz 0.25V
SPU0840, 0845 series: 100KHz 0.1V
2. Test equipment :
L/Q : HP4284A LCR meter
DCR : Milli-ohm meter.
3. Rated DC current : The current when the inductance becomes 35% lower than its initial value.
4. Operating temperature range : -40 ~+125 .