

High inductance, high current HSB0420-1012 Series



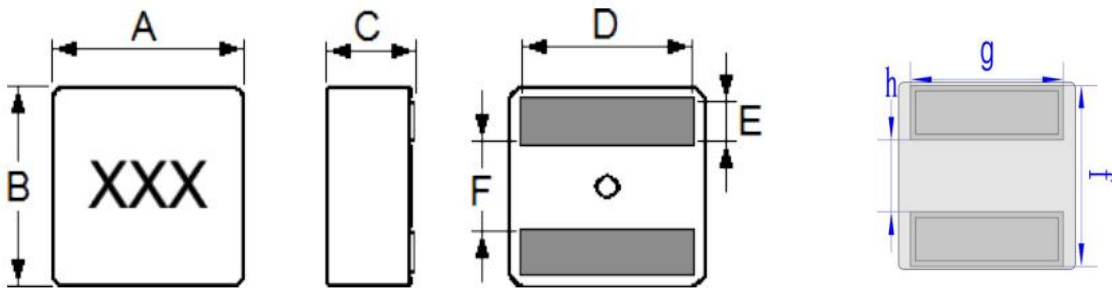
Features

- Assemblage design, sturdy structure.
- Flat wire winding, achieve a low DCR.
- High current, low DCR, high efficiency.
- High inductance, high current, low magnetic loss, low ERS, small parasitic capacitance.
- Operating temperature: $-25^{\circ}\text{C} \sim 125^{\circ}\text{C}$.

Tolerance

- (M 20% , N 30%)

Configurations & Dimensions



Dimensions

Chip Size

Units:mm

TYPE	A	B	C	D	E	F	f	g	h
HSB0420	4.1 ± 0.2	4.1 ± 0.2	2.15max	3.4ref	0.88 ± 0.3	1.6 ± 0.3	3.4ref	3.8ref	1.4ref
HSB0430	4.1 ± 0.25	4.1 ± 0.25	3.1max	3.4ref	0.88 ± 0.3	1.6 ± 0.3	3.4ref	3.8ref	1.4ref
HSB0520	5.5 ± 0.2	5.3 ± 0.2	2.15max	4.3ref	1.1 ± 0.3	2.3 ± 0.3	4.5ref	4.7ref	2.0ref
HSB0530	5.5 ± 0.2	5.3 ± 0.2	3.1max	4.3ref	1.1 ± 0.3	2.3 ± 0.3	4.5ref	4.7ref	2.0ref
HSB0550	5.5 ± 0.2	5.3 ± 0.2	5.0max	4.3ref	1.1 ± 0.3	2.3 ± 0.5	4.5ref	4.7ref	2.0ref
HSB0630	6.6 ± 0.2	6.4 ± 0.2	3.1max	5.3ref	1.4 ± 0.3	2.6 ± 0.3	5.6ref	5.6ref	2.5ref
HSB0650	6.6 ± 0.2	6.4 ± 0.2	5.0max	5.3ref	1.4 ± 0.3	2.6 ± 0.3	5.6ref	5.6ref	2.5ref
HSB0660	6.6 ± 0.2	6.4 ± 0.2	6.0max	5.3ref	1.4 ± 0.3	2.6 ± 0.3	5.6ref	5.6ref	2.5ref
HSB0730	7.8 ± 0.25	7.6 ± 0.2	3.1max	6.5ref	1.75 ± 0.3	3.15 ± 0.3	7.4ref	7.2ref	2.8ref
HSB0770	7.8 ± 0.25	7.6 ± 0.2	7.0max	6.5ref	1.75 ± 0.3	3.15 ± 0.4	7.4ref	7.2ref	2.8ref
HSB1010	11.9 ± 0.3	11 ± 0.3	10max	9.0ref	2.4 ± 0.2	6.6 ± 0.3	10.5ref	11ref	3.7ref
HSB1508	16.5 ± 0.3	15.5 ± 0.3	8max	13.2ref	3.2 ± 0.3	7.4 ± 0.5	15ref	15ref	6.0ref
HSB1510	16.5 ± 0.3	15.5 ± 0.3	10max	13.2ref	3.2 ± 0.3	7.4 ± 0.5	15ref	15ref	6.0ref

Design as Customer's Requested Specifications.

High inductance, high current HSB0420 Series



Specifications HSB0420

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0420-R10M	0.10	20	18.0	33.0	2.09	2.40
HSB0420-R22M	0.22	20	16.8	18.8	4.00	4.60
HSB0420-R36M	0.36	20	14.5	15.0	5.48	6.30
HSB0420-R40M	0.40	20	14.0	13.5	6.70	7.70
HSB0420-R47M	0.47	20	12.5	13.0	7.48	8.60
HSB0420-R56M	0.56	20	12.0	12.6	8.09	9.30
HSB0420-R60M	0.60	20	11.7	12.3	8.26	9.50
HSB0420-R72M	0.72	20	10.5	10.6	10.09	11.60
HSB0420-1R0M	1.00	20	9.6	8.8	12.70	14.60
HSB0420-1R2M	1.20	20	9.0	7.8	15.57	17.90
HSB0420-1R5M	1.50	20	7.6	7.4	20.43	23.50
HSB0420-1R8M	1.80	20	7.0	7.0	24.35	28.00
HSB0420-2R2M	2.2	20	5.6	6.0	33.65	38.70

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0430 Series



Specifications HSB0430

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0430-R33M	0.10	20	15.0	19.0	5.91	6.80
HSB0430-R47M	0.47	20	14.0	17.0	6.31	7.26
HSB0430-R75M	0.75	20	10.0	9.0	9.39	10.80
HSB0430-1R0M	1.0	20	10.0	8.5	11.10	12.73
HSB0430-1R8M	1.8	20	7.5	6.8	15.22	17.50
HSB0430-2R2M	2.2	20	7.2	7.0	18.09	20.80
HSB0430-3R3M	3.3	20	6.6	5.5	24.87	28.60
HSB0430-4R7M	4.7	20	5.1	4.5	38.35	44.10
HSB0430-6R8M	6.8	20	3.9	3.9	64.43	74.10

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0520 Series



Specifications HSB0520

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0520-R15M	0.15	20	18.8	27.0	4.00	4.60
HSB0520-R16M	0.47	20	18.8	27.0	4.00	4.60
HSB0520-R33M	0.68	20	14.4	24.0	6.09	7.00
HSB0520-R47M	1.0	20	14.1	20.0	7.04	8.10
HSB0520-R56M	2.2	20	13.9	16.0	8.26	9.50
HSB0520-R68M	3.3	20	13.4	14.0	8.87	10.20
HSB0520-R80M	4.7	20	13.0	13.5	10.26	11.80
HSB0520-R82M	5.6	20	12.0	13.0	11.01	12.70
HSB0520-1R0M	6.6	21	10.5	12.8	12.00	13.80
HSB0520-1R2M	6.8	20	9.4	12.2	14.17	16.30
HSB0520-1R5M	10.0	20	8.8	11.7	16.26	18.70

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0530 Series



Specifications HSB0530

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0530-R15M	0.15	20	22.2	32.5	2.01	2.31
HSB0530-R16M	0.16	20	22.2	32.0	2.03	2.33
HSB0530-R33M	0.33	20	19.2	26.0	3.06	3.52
HSB0530-R47M	0.47	20	18.4	24.0	3.59	4.13
HSB0530-R56M	0.56	20	17.7	20.2	3.93	4.52
HSB0530-R60M	0.60	20	17.7	20.0	3.93	4.52
HSB0530-R80M	0.80	20	13.1	18.0	4.91	5.65
HSB0530-R82M	0.82	20	12.9	17.6	5.13	5.78
HSB0530-1R0M	1.0	20	12.2	14.3	6.61	7.60
HSB0530-1R2M	1.2	20	11.0	13.5	8.43	9.70
HSB0530-1R5M	1.5	20	10.5	12.5	9.74	11.20
HSB0530-1R8M	1.8	20	10.1	11.3	11.04	12.70
HSB0530-2R2M	2.2	20	9.7	9.0	12.61	14.50
HSB0530-3R3M	3.3	20	8.1	8.7	20.09	23.10
HSB0530-4R7M	4.7	20	5.9	7.0	31.57	36.30

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0550 0630 Series



Specifications HSB0550

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0550-5R6M	5.60	20	7.2	7.2	21.04	24.20
HSB0550-6R8M	6.80	20	6.4	6.6	24.87	28.60
HSB0550-8R2M	8.20	20	6.1	6.1	28.26	32.50
HSB0550-100M	10.0	20	5.0	5.4	37.39	43.00

Specifications HSB0630

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0630-R18M	0.18	20	32.0	39.0	1.52	1.75
HSB0630-R33M	0.33	20	25.0	30.0	2.17	2.50
HSB0630-R56M	0.56	20	22.0	29.0	2.88	3.31
HSB0630-R68M	0.68	20	20.0	25.0	4.50	5.71
HSB0630-1R0M	1.0	20	18.0	23.0	5.26	6.05
HSB0630-1R2M	1.2	20	16.0	22.0	6.43	7.40
HSB0630-1R5M	1.5	20	15.0	20.0	7.94	9.13
HSB0630-1R8M	1.8	20	14.0	18.2	8.87	10.20
HSB0630-2R2M	2.2	20	10.0	15.9	10.61	12.20
HSB0630-3R3M	3.3	20	8.0	12.2	18.09	20.80
HSB0630-4R5M	4.5	20	7.0	10.0	22.00	25.30
HSB0630-4R7M	4.7	20	6.0	9.0	22.61	26.00

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0650 0660 Series



Specifications HSB0650

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0650-R82M	0.82	20	21.0	20.0	3.63	4.18
HSB0650-1R0M	1.00	20	20.0	18.0	3.93	4.52
HSB0650-1R2M	1.20	20	18.0	16.0	5.07	5.83
HSB0650-1R5M	1.5	20	17.0	14.5	5.48	6.30
HSB0650-1R8M	1.8	20	16.0	13.5	6.17	7.10
HSB0650-2R2M	2.2	20	13.0	12.0	7.39	8.50
HSB0650-3R3M	3.3	20	11.0	10.0	10.87	12.50
HSB0650-4R3M	4.3	20	9.0	8.5	14.09	16.20
HSB0650-4R7M	4.7	20	8.5	8.0	16.00	18.40
HSB0650-5R6M	5.6	20	7.0	8.3	19.13	22.00
HSB0650-6R8M	6.8	20	6.6	7.0	22.09	25.40
HSB0650-8R2M	8.2	20	6.2	6.8	27.39	31.50

Specifications HSB0660

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0660-4R7M	4.7	20	11.0	10.5	12.52	14.40
HSB0660-5R6M	5.6	20	10.0	9.9	13.83	15.90
HSB0660-6R8M	6.8	20	9.0	9.2	18.09	20.80
HSB0660-8R2M	8.2	20	8.0	8.4	22.96	26.40
HSB0660-100M	10.0	20	7.0	7.6	25.91	29.80
HSB0660-150M	15.0	20	6.0	5.8	38.09	43.80
HSB0660-220M	22.0	20	5.0	5.6	52.70	60.60

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB0730 0770 Series



Specifications HSB0730

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0730-1R0M	1.00	20	21.8	28.0	4.35	5.00
HSB0730-1R5M	1.50	20	15.3	23.5	7.17	8.25
HSB0730-2R2M	2.20	20	13.0	17.0	11.91	13.70
HSB0730-2R7M	2.7	20	11.4	13.5	13.39	15.40
HSB0730-3R3M	3.3	20	10.0	13.0	15.65	18.00
HSB0730-4R7M	4.7	20	9.0	12.2	23.22	26.70
HSB0730-5R6M	5.6	20	7.3	11.5	28.87	33.20
HSB0730-6R8M	6.8	20	6.8	11.0	36.96	42.50
HSB0730-8R2M	8.2	20	5.9	9.0	42.37	48.73

Specifications HSB0770

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB0770-3R3M	3.30	20	15.1	19.4	8.19	9.42
HSB0770-4R7M	4.70	20	13.6	15.2	12.40	14.26
HSB0770-6R8M	6.80	20	9.2	12.8	17.04	19.60

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB1010 Series



Specifications HSB1010

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB1010-1R0M	1.0	20	40.0	50.0	1.04	1.20
HSB1010-2R2M	2.2	20	32.0	34.0	2.43	2.80
HSB1010-3R3M	3.3	20	25.0	27.4	3.57	4.10
HSB1010-4R7M	4.7	20	24.0	25.4	4.96	5.70
HSB1010-5R6M	5.6	20	21.2	23.6	6.26	7.20
HSB1010-6R8M	6.8	20	18.5	21.8	7.74	8.90
HSB1010-8R2M	8.2	20	17.1	18.3	10.78	12.40
HSB1010-100M	10.0	20	15.5	17.5	11.96	13.75
HSB1010-150M	15.0	20	13.8	15.5	16.78	19.30

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause LQ to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB1508 Series



Specifications HSB1508

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB1508-2R0M	2.0	20	40.0	52.0	1.92	2.21
HSB1508-2R2M	2.2	20	37.0	49.0	2.16	2.48
HSB1508-3R0M	3.0	20	34.5	41.0	2.61	3.00
HSB1508-4R2M	4.2	20	27.0	33.0	4.07	4.68
HSB1508-4R7M	4.7	20	26.5	32.0	4.49	5.16
HSB1508-5R3M	5.3	20	26.0	31.0	4.64	5.34
HSB1508-6R2M	6.2	20	23.0	31.0	5.65	6.50
HSB1508-7R2M	7.2	20	21.0	29.0	6.26	7.20
HSB1508-8R2M	8.2	20	19.0	25.0	6.89	7.92

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

High inductance, high current HSB1510 Series



Specifications HSB1510

Part Number	Inductance (uH)	Tolerance (%)	Irms (A) typ	Isat (A) typ	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
HSB1510-4R7M	4.7	20	29	39.0	3.30	3.80
HSB1510-5R6M	5.6	20	28	37.0	3.65	4.20
HSB1510-6R8M	6.8	20	26	36.0	4.00	4.60
HSB1510-8R2M	8.2	20	24	30.0	6.26	7.20
HSB1510-100M	10.0	20	22	26.5	7.48	8.60
HSB1510-150M	15.0	20	18	23.0	10.00	11.50
HSB1510-220M	22.0	20	14	18.7	13.74	15.80
HSB1510-330M	33.0	20	12	16.7	17.39	20.00

Note:

1. Test frequency: L: 100KHz/1.0V.
2. All test data referenced to 25°C ambient.
3. Heat rated current (Irms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min).
4. Saturation current (Isat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.