

Molding Power Inductors---SPH Series



Feature

- Shielded construction.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.
- 100% Pb lead (Pb) free meet RoHS standard.
- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise).

Application

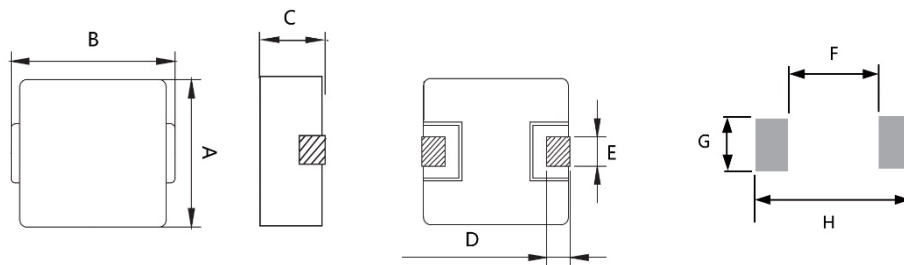
- PAD/Notebook/Desktop/Sever application.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converter for Filed Programmable Gate Array (FPGA).

Production identification

SPH
①
4020
②
S
③
-
2R2
④
M
⑤
I
⑥

- ① Series name
- ② Size: $4.1 \times 4.6 \times 2.0\text{mm}$
- ③ S: Standard product
- ④ Inductance: $2.2\mu\text{H}$
- ⑤ Tolerance: $\pm 20\%$
- ⑥ Packing

Series Shape and Dimensions (Unit: mm)



Series	A	B	C	D	E	F	G	H	SPQ
SPH4010	4.1 ± 0.2	4.1 ± 0.2	0.8 ± 0.2	0.8 ± 0.2	1.8 ± 0.2	2.2	2.2	4.4	3000
SPH4012	4.4 ± 0.35	4.2 ± 0.25	1.0 ± 0.2	0.8 ± 0.3	2.0 ± 0.3	2.2	2.5	5.2	3000
SPH4020	4.2 ± 0.25	4.4 ± 0.35	1.8 ± 0.2	0.8 ± 0.3	2.0 ± 0.3	2.2	2.5	4.8	3000
SPH5018	5.2 ± 0.2	5.4 ± 0.35	1.6 ± 0.2	1.2 ± 0.2	2.2 ± 0.3	2.2	2.5	6.0	2000
SPH5030	5.2 ± 0.2	5.4 ± 0.35	2.8 ± 0.2	1.2 ± 0.2	2.2 ± 0.3	2.2	2.5	6.0	2000
SPH6010	6.1 ± 0.3	6.1 ± 0.3	0.8 ± 0.2	1.75 ± 0.2	4.0 ± 0.3	2.8	4.5	7.5	1500
SPH6015	7.0 ± 0.3	6.6 ± 0.2	1.3 ± 0.2	1.6 ± 0.3	3.0 ± 0.3	3.7	3.5	8.4	1500
SPH6018	7.0 ± 0.3	6.6 ± 0.2	1.6 ± 0.2	1.6 ± 0.3	3.0 ± 0.3	3.7	3.5	8.4	1500
SPH6024	7.0 ± 0.3	6.6 ± 0.2	2.2 ± 0.2	1.6 ± 0.3	3.0 ± 0.3	3.7	3.5	8.4	1500
SPH6030	7.0 ± 0.3	6.6 ± 0.3	2.8 ± 0.2	1.6 ± 0.3	3.0 ± 0.2	3.7	3.5	8.4	1500

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Series Shape and Dimensions (Unit: mm)

Series	A	B	C	D	E	F	G	H	SPQ
SPH6040	7.0±0.3	6.6±0.3	3.8±0.2	1.6±0.3	3.0±0.2	3.7	3.5	8.4	1500
SPH6050	7.0±0.3	6.6±0.3	4.8±0.2	1.6±0.3	3.0±0.2	3.7	3.5	8.4	1500
SPH1030	11.2±0.3	10.0±0.3	2.8±0.2	2.0±0.5	3.0±0.5	5.4	4.1	13.6	500
SPH1040	11.2±0.3	10.0±0.3	3.8±0.2	2.0±0.5	3.0±0.3	5.4	4.1	13.6	500
SPH1050	11.2±0.3	10.5±1.0	4.8±0.2	2.0±0.5	3.0±0.3	5.4	4.1	13.6	500
SPH1340	13.45±0.35	12.8±0.5	3.8±0.2	2.0±0.5	3.8/5.0±0.3	8.0	5.5	14.5	500
SPH1350	13.45±0.35	12.6±0.3	4.8±0.2	2.0±0.5	3.8/5.0±0.3	8.0	5.5	14.5	500
SPH1360	13.45±0.35	12.6±0.3	5.8±0.2	2.0±0.5	5.0±0.3	8.0	5.5	14.5	500
SPH1365	13.45±0.35	12.6±0.3	6.3±0.2	2.0±0.5	5.0±0.3	8.0	5.5	14.5	500
SPH1770	17.15±0.35	17.15±0.35	6.8±0.2	2.5±0.5	11.9±0.3	11.2	12.8	18.2	300

SPH4010 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH4010S-100MT	10	20	336	1.8	1.5

SPH4012 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH4012S-R15MT	0.15	20	9	15.0	7.5
SPH4012S-R22MT	0.22	20	11	11.0	7.0
SPH4012S-R33MT	0.33	20	19	8.4	6.5
SPH4012S-R47MT	0.47	20	21	6.8	6.0
SPH4012S-R68MT	0.68	20	36	6.0	4.7
SPH4012S-1R0MT	1.0	20	47	5.5	4.5
SPH4012S-1R5MT	1.5	20	75	4.0	3.2
SPH4012S-2R2MT	2.2	20	83.5	3.0	2.7
SPH4012S-4R7MT	4.7	20	195	2.2	1.8

SPH4020 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH4020S-R10MT	0.1	20	4	22.0	13.0
SPH4020S-R22MT	0.22	20	6.6	12.5	9.5
SPH4020S-R33MT	0.33	20	11	12.0	10.0
SPH4020S-R47MT	0.47	20	14	9.5	7.5
SPH4020S-R56MT	0.56	20	16	9.0	7.0
SPH4020S-R68MT	0.68	20	18	8.0	7.0
SPH4020S-1R0MT	1.0	20	27	7.0	6.0

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SPH4020 Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	DCR Max (m Ω)	Isat Max (A)	Irms Max (A)
SPH4020S-1R2MT	1.2	20	27	6.5	6.0
SPH4020S-1R5MT	1.5	20	46	5.5	5.0
SPH4020S-2R2MT	2.2	20	58	5.0	4.5
SPH4020S-3R3MT	3.3	20	87	3.5	3.3
SPH4020S-4R7MT	4.7	20	105	3.0	2.8
SPH4020S-6R8MT	6.8	20	175	2.5	2.4
SPH4020S-100MT	10	20	282	2.0	1.6

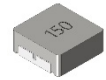
SPH5018 Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	DCR Max (m Ω)	Isat Max (A)	Irms Max (A)
SPH5018S-R47MT	0.47	20	9	15.5	10.5
SPH5018S-R56MT	0.56	20	10	15.0	9.5
SPH5018S-R68MT	0.68	20	13.8	11.2	8.9
SPH5018S-1R0MT	1.0	20	17	9.0	8.0
SPH5018S-1R5MT	1.5	20	26	8.0	7.5
SPH5018S-2R2MT	2.2	20	35	6.5	5.0
SPH5018S-3R3MT	3.3	20	58	5.0	4.5
SPH5018S-4R7MT	4.7	20	85	4.0	3.5
SPH5018S-6R8MT	6.8	20	120	3.4	2.8
SPH5018S-100MT	10	20	155	3.0	2.5

SPH5030 Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	DCR Max (m Ω)	Isat Max (A)	Irms Max (A)
SPH5030S-R10MT	0.1	20	3.0	30.0	25.0
SPH5030S-R20MT	0.2	20	3.9	20.0	14.0
SPH5030S-R33MT	0.33	20	5.5	18.0	14.0
SPH5030S-R47MT	0.47	20	8.5	15.0	11.0
SPH5030S-R68MT	0.68	20	12	11.5	9.0
SPH5030S-1R0MT	1.0	20	14	10.0	8.5
SPH5030S-1R2MT	1.2	20	16	9.5	8.5
SPH5030S-1R5MT	1.5	20	25	9.0	8.2
SPH5030S-2R2MT	2.2	20	29	7.0	7.0
SPH5030S-3R3MT	3.3	20	38	6.0	5.5
SPH5030S-4R7MT	4.7	20	60	4.6	4.5
SPH5030S-6R8MT	6.8	20	90	3.6	3.5
SPH5030S-100MT	10	20	125	3.5	3.2

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SPH6010 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6010S-4R7MT	4.7	20	172	2.8	2.2
SPH6010S-6R8MT	6.8	20	197	2.5	2.0
SPH6010S-100MT	10	20	310	2.1	1.6

SPH6015 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6015S-R47MT	0.47	20	8.5	16.0	10.0
SPH6015S-R56MT	0.56	20	11	14.0	9.0
SPH6015S-R68MT	0.68	20	12	12.0	8.5
SPH6015S-R82MT	0.82	20	17	10.0	8.0
SPH6015S-1R0MT	1.0	20	21	9.0	6.0
SPH6015S-2R2MT	2.2	20	54	7.0	3.8
SPH6015S-3R3MT	3.3	20	63	5.5	3.5
SPH6015S-4R7MT	4.7	20	85	5.0	3.2
SPH6015S-6R8MT	6.8	20	135	4.0	2.5
SPH6015S-100MT	10	20	175	3.0	2.0

SPH6018 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6018S-R10MT	0.1	20	2.3	38.0	25.0
SPH6018S-R22MT	0.22	20	3.5	24.0	22.0
SPH6018S-R47MT	0.47	20	8.4	18.0	11.5
SPH6018S-R68MT	0.68	20	12	16.5	9.5
SPH6018S-1R0MT	1.0	20	16	12.0	8.5
SPH6018S-1R5MT	1.5	20	26	9.2	8.0
SPH6018S-2R2MT	2.2	20	35	8.0	7.0
SPH6018S-3R3MT	3.3	20	50	6.0	4.5
SPH6018S-4R7MT	4.7	20	62	5.0	4.0
SPH6018S-6R8MT	6.8	20	110	4.5	3.0
SPH6018S-100MT	10	20	155	4.0	2.3
SPH6018S-220MT	22	20	350	2.3	1.8

Notes:

1. Irms: DC current that will causes the temperature rise ($\Delta t=40^{\circ}\text{C}$) from 25°C ambient.
2. Isat: DC current at which the inductance drops approximate 30% from it's value without current.

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SPH6024 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6024S-R22MT	0.22	20	3	34.0	21.0
SPH6024S-R33MT	0.33	20	4.1	24.5	18.0
SPH6024S-R47MT	0.47	20	5.1	22.0	15.0
SPH6024S-R56MT	0.56	20	6.5	17.0	13.0
SPH6024S-R68MT	0.68	20	7	16.0	12.0
SPH6024S-1R0MT	1.0	20	13.5	15.0	9.0
SPH6024S-1R5MT	1.5	20	20	13.5	8.2
SPH6024S-2R2MT	2.2	20	28	10.0	7.0
SPH6024S-3R3MT	3.3	20	39	8.0	5.5
SPH6024S-4R7MT	4.7	20	50	6.5	5.0
SPH6024S-6R8MT	6.8	20	70	6.0	4.0
SPH6024S-100MT	10	20	101	4.0	3.1
SPH6024S-150MT	15	20	160	3.3	2.5
SPH6024S-220MT	22	20	230	2.5	2.0

SPH6030 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6030S-R22MT	0.22	20	3	34.0	24.0
SPH6030S-R33MT	0.33	20	3.5	25.0	21.0
SPH6030S-R47MT	0.47	20	4.1	20.0	18.0
SPH6030S-R56MT	0.56	20	4.5	18.0	16.5
SPH6030S-R68MT	0.68	20	5.3	17.0	16.0
SPH6030S-R82MT	0.82	20	6.0	16.0	14.0
SPH6030S-1R0MT	1.0	20	7.4	15.0	12.0
SPH6030S-1R5MT	1.5	20	12.1	12.0	12.0
SPH6030S-2R2MT	2.2	20	15	10.0	9.5
SPH6030S-3R3MT	3.3	20	22	9.5	8.5
SPH6030S-4R7MT	4.7	20	33	9.0	6.0
SPH6030S-5R6MT	5.6	20	42	6.5	5.5
SPH6030S-6R8MT	6.8	20	48	6.0	5.0
SPH6030S-8R2MT	8.2	20	60	5.5	5.0
SPH6030S-100MT	10	20	68	5.5	4.5
SPH6030S-150MT	15	20	113	4.0	3.0
SPH6030S-220MT	22	20	170	3.0	2.5
SPH6030S-330MT	33	20	270	2.5	2.0
SPH6030S-470MT	47	20	385	2.0	1.5

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SPH6040 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6040S-R68MT	0.68	20	4.8	19.0	17.0
SPH6040S-1R0MT	1.0	20	6.6	16.0	13.5
SPH6040S-1R5MT	1.5	20	10	12.5	12.4
SPH6040S-2R2MT	2.2	20	14	11.0	10.0
SPH6040S-3R3MT	3.3	20	20	9.5	8.5
SPH6040S-4R7MT	4.7	20	30	9.0	6.5
SPH6040S-6R8MT	6.8	20	45	6.5	5.5
SPH6040S-100MT	10	20	65	6.0	4.8
SPH6040S-150MT	15	20	95	4.5	3.7
SPH6040S-220MT	22	20	125	4.0	3.3
SPH6040S-330MT	33	20	240	3.0	2.2
SPH6040-470MT	47	20	320	2.5	1.8

SPH6050 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH6050S-R47MT	0.47	20	3.9	21.0	20.0
SPH6050S-R68MT	0.68	20	4.5	18.0	16.5
SPH6050S-1R0MT	1.0	20	6.6	16.0	12.0
SPH6050S-1R5MT	1.5	20	10	13.0	9.5
SPH6050S-2R2MT	2.2	20	12.5	11.0	9.0
SPH6050S-3R3MT	3.3	20	22	10.0	8.5
SPH6050S-4R7MT	4.7	20	29	8.0	6.0
SPH6050S-6R8MT	6.8	20	41	6.3	5.8
SPH6050S-8R2MT	8.2	20	48	5.5	5.5
SPH6050S-100MT	10	20	60	5.3	4.5
SPH6050S-150MT	15	20	90	4.0	3.1
SPH6050S-220MT	22	20	140	3.5	2.6
SPH6050S-330MT	33	20	190	3.0	2.3
SPH6050S-470MT	47	20	230	2.6	2.0

Notes:

1. Irms: DC current that will causes the temperature rise ($\Delta t=40^{\circ}\text{C}$) from 25°C ambient.
2. Isat: DC current at which the inductance drops approximate 30% from it's value without current.

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SPH1030 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1030S-R22MT	0.22	20	1.2	50.0	33.0
SPH1030S-R33MT	0.33	20	1.6	32.0	23.0
SPH1030S-R36MT	0.36	20	1.6	28.0	23.0
SPH1030S-R47MT	0.47	20	2.5	26.0	22.0
SPH1030S-R82MT	0.82	20	3.7	23.0	18.0
SPH1030S-1R0MT	1.0	20	6	21.0	15.0
SPH1030S-2R2MT	2.2	20	9	14.0	11.0
SPH1030S-3R3MT	3.3	20	16	12.0	9.0
SPH1030S-4R7MT	4.7	20	24	10.0	7.0
SPH1030S-8R2MT	8.2	20	45	7.0	5.0

SPH1040 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1040S-R15MT	0.15	20	0.65	75.0	45.0
SPH1040S-R22MT	0.22	20	1	60.0	35.0
SPH1040S-R30MT	0.3	20	1.1	45.0	35.0
SPH1040S-R36MT	0.36	20	1.2	45.0	30.0
SPH1040S-R47MT	0.47	20	1.7	40.0	30.0
SPH1040S-R56MT	0.56	20	1.8	33.0	25.0
SPH1040S-R68MT	0.68	20	2.4	30.0	23.0
SPH1040S-R80MT	0.8	20	2.7	29.0	23.0
SPH1040S-1R0MT	1.0	20	3.3	28.0	19.0
SPH1040S-1R5MT	1.5	20	4.2	24.0	16.0
SPH1040S-2R2MT	2.2	20	7	16.5	12.0
SPH1040S-3R3MT	3.3	20	11.8	16.0	11.0
SPH1040S-4R7MT	4.7	20	20	13.0	9.0
SPH1040S-6R8MT	6.8	20	25	12.0	8.5
SPH1040S-8R2MT	8.2	20	27	9.0	8.0
SPH1040S-100MT	10	20	30	8.5	7.8
SPH1040S-150MT	15	20	45	7.0	6.5
SPH1040S-220MT	22	20	66	5.5	5.0
SPH1040S-330MT	33	20	92	4.8	4.4
SPH1040S-470MT	47	20	145	3.5	3.3
SPH1040S-680MT	68	20	195	3.0	2.5
SPH1040S-101MT	100	20	340	2.3	2.0

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SPH1050 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1050S-R22MT	0.22	20	0.8	65.0	37.0
SPH1050S-1R0MT	1.0	20	3	30.0	23.0
SPH1050S-1R5MT	1.5	20	3.8	25.0	21.0
SPH1050S-2R2MT	2.2	20	6	19.0	15.0
SPH1050S-3R3MT	3.3	20	10	16.0	13.0
SPH1050S-4R7MT	4.7	20	14	15.0	11.0
SPH1050S-5R6MT	5.6	20	17	14.0	9.5
SPH1050S-6R8MT	6.8	20	18.5	14.0	9.0
SPH1050S-100MT	10	20	28	10.0	8.0
SPH1050S-150MT	15	20	42	7.5	6.5
SPH1050S-220MT	22	20	50	6.0	5.5
SPH1050S-330MT	33	20	86	5.2	4.8
SPH1050S-470MT	47	20	127	4.5	3.7
SPH1050S-101MT	100	20	290	2.8	2.1

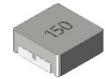
SPH1340 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1340S-R22MT	0.22	20	0.9	50.0	42.0
SPH1340S-R47MT	0.47	20	2.0	48.0	33.0
SPH1340S-R68MT	0.68	20	3.5	47.0	28.0
SPH1340S-R82MT	0.82	20	4.5	40.0	28.0
SPH1340S-1R0MT	1.0	20	7.5	35.0	24.0
SPH1340S-1R5MT	1.5	20	9.5	30.5	20.0
SPH1340S-2R2MT	2.2	20	11.5	26.0	18.0
SPH1340S-3R3MT	3.3	20	13.0	21.0	15.0
SPH1340S-4R7MT	4.7	20	14.5	18.0	13.0
SPH1340S-6R8MT	6.8	20	20.0	14.0	9.0
SPH1340S-100MT	10.0	20	25.0	10.0	8.0
SPH1340S-150MT	15.0	20	39.0	7.5	6.5
SPH1340S-220MT	22.0	20	58	6.0	4.5

Notes:

1. Irms: DC current that will causes the temperature rise ($\Delta t=40^{\circ}\text{C}$) from 25°C ambient.
2. Isat: DC current at which the inductance drops approximate 30% from it's value without current.

Molding Power Inductors---SPH Series



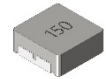
SPH1350 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1350S-R22MT	0.22	20	0.7	75.0	50.0
SPH1350S-R36MT	0.36	20	0.85	50.0	42.0
SPH1350S-R50MT	0.50	20	1.15	48.0	38.0
SPH1350S-R68MT	0.68	20	1.55	46.0	33.0
SPH1350S-R82MT	0.82	20	1.67	39.0	30.0
SPH1350S-1R0MT	1.0	20	2.2	35.0	26.0
SPH1350S-1R5MT	1.5	20	3.2	33.0	23.0
SPH1350S-2R2MT	2.2	20	5.0	24.0	15.0
SPH1350S-3R3MT	3.3	20	7	22.0	14.0
SPH1350S-4R7MT	4.7	20	9	20.0	13.0
SPH1350S-6R8MT	6.8	20	18	16.0	12.0
SPH1350S-8R2MT	8.2	20	20	13.0	9.5
SPH1350S-100MT	10	20	22	12.0	9.0
SPH1350S-150MT	15	20	30	10.0	8.0
SPH1350S-220MT	22	20	58	6.5	4.5
SPH1350S-330MT	33	20	84	6.0	3.5
SPH1350S-470MT	47	20	130	5.0	3.0

SPH1360 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1360S-4R7MT	4.7	20	9	24.0	15.0
SPH1360S-5R6MT	5.6	20	11	22.5	13.0
SPH1360S-6R8MT	6.8	20	13.5	19.0	12.0
SPH1360S-8R2MT	8.2	20	16	13.5	11.0
SPH1360S-100MT	10	20	20.7	12.5	10.0
SPH1360S-120MT	12	20	23	10.0	9.0
SPH1360S-150MT	15	20	29	9.0	8.5
SPH1360S-180MT	18	20	35	8.0	7.5
SPH1360S-220MT	22	20	39.5	7.5	7.0
SPH1360S-270MT	27	20	56	6.5	6.0
SPH1360S-330MT	33	20	75	6.0	5.5
SPH1360S-470MT	47	20	90	5.5	5.0
SPH1360S-680MT	68	20	140	4.5	4.0
SPH1360S-101MT	100	20	200	3.5	3.0
SPH1360S-121MT	120	20	235	3.2	2.0
SPH1360S-151MT	150	20	350	2.7	1.5

Molding Power Inductors---SPH Series



SPH1365 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1365S-4R7MT	4.7	20	8.5	24.0	16.0
SPH1365S-5R6MT	5.6	20	10.5	22.5	14.0
SPH1365S-6R8MT	6.8	20	12	19.0	13.0
SPH1365S-8R2MT	8.2	20	14	16.0	12.0
SPH1365S-100MT	10	20	16.5	15.0	11.0
SPH1365S-150MT	15	20	26	11.0	9.5
SPH1365S-220MT	22	20	36	9.0	8.0
SPH1365S-330MT	33	20	65	8.0	6.5
SPH1365S-470MT	47	20	70	6.8	5.5
SPH1365S-680MT	68	20	120	5.2	4.8
SPH1365S-820MT	82	20	135	4.5	4.0
SPH1365S-101MT	100	20	170	4.0	3.5

SPH1770 Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	DCR Max (mΩ)	Isat Max (A)	Irms Max (A)
SPH1770S-2R2MT	2.2	20	2.5	34.0	29.0
SPH1770S-3R3MT	3.3	20	3.95	30.0	24.0
SPH1770S-4R7MT	4.7	20	4.75	24.0	21.0
SPH1770S-6R8MT	6.8	20	7.5	22.0	17.0
SPH1770S-8R2MT	8.2	20	8.7	20.0	13.0
SPH1770S-100MT	10	20	9.9	19.0	12.0
SPH1770S-150MT	15	20	17	14.5	11.0
SPH1770S-220MT	22	20	23	11.5	8.5
SPH1770S-330MT	33	20	37	10.0	8.0
SPH1770S-470MT	47	20	47	7.5	6.0
SPH1770S-680MT	68	20	85	6.5	5.2
SPH1770S-101MT	100	20	130	5.0	3.7

Notes:

1. I_{rms}: DC current that will causes the temperature rise ($\Delta t=40^{\circ}\text{C}$) from 25°C ambient.
2. I_{sat}: DC current at which the inductance drops approximate 30% from it's value without current.

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