

SLH Series

SMD Power Inductors

APPLICATIONS

High current POL converters

Low profile, high current power supply

Battery powered devices

DC-DC converters in distributed power systems

DC-DC converter for Field Programmable Gate Array (FPGA)

Harsh environments including moisture, chemicals and salt spray

FEATURES

Halogen Free products

Shielded construction

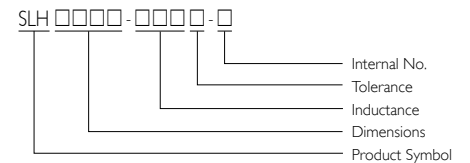
Lowest DCR/ μ H, in this package size

Handle high transient current spikes without saturation

No air-gap inside but filled with magnetic powder



PRODUCT IDENTIFICATION



■ Tolerance: J = $\pm 5\%$, K = $\pm 10\%$, L = $\pm 15\%$, M = $\pm 20\%$,
P = $\pm 25\%$, N = $\pm 30\%$, Y = min

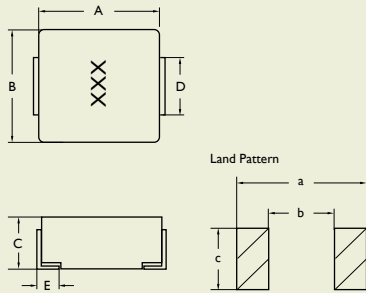
■ Internal No.: N = Lead Free



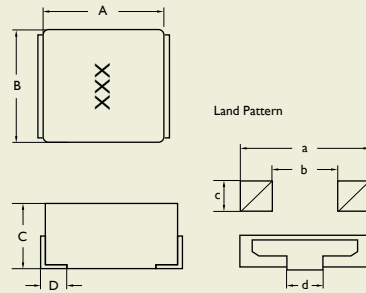
SHAPES AND DIMENSIONS

Unit: mm

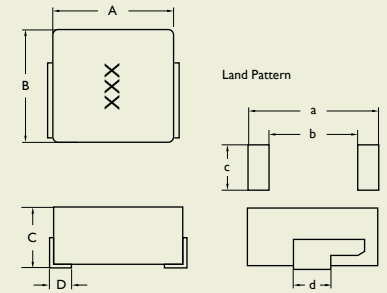
SLH0630/0650



SLH1040/1235



SLH1250/1265



TYPE	A	B	C	D	E	a	b	c	d
SLH0630	6.86 ± 0.381	6.47 ± 0.254	3.0 ⁺⁰	3.18	1.27 ± 0.30	7.37	3.71	3.4	
SLH0650	6.86 ± 0.381	6.47 ± 0.254	5.0 ⁺⁰	3.18 ± 0.30	1.27 ± 0.30	7.37	3.71	3.4	
SLH1040	11.5 ⁺⁰	10.3 ⁺⁰	4.0 ⁺⁰	2.2 ± 0.30		13	6	4.0 ⁺⁰	3.0 ± 0.3
SLH1235	13.2 ± 0.38	12.9 ⁺⁰	3.5 ⁺⁰	2.3 ± 0.30		13.8	8.1	3.3	3.0 ± 0.3
SLH1250	13.2 ± 0.50	12.9 ⁺⁰	5.0 ⁺⁰	2.3 ± 0.30		13.76	7.87	5.0	4.7 ± 0.3
SLH1265	13.2 ± 0.50	12.9 ⁺⁰	6.5 ⁺⁰	2.3 ± 0.30		13.76	7.87	5.0	4.7 ± 0.3

ELECTRICAL CHARACTERISTICS SLH0630

PART NO.	INDUCTANCE (μH) ±20%	DC RESISTANCE (mΩ)		Isat (A) Max.	I _{rms} (A) Max.
		Typical	Max.		
SLH0630-R10M-N	0.10	1.50	1.70	60.0	32.5
SLH0630-R15M-N	0.15	1.90	2.50	52.0	26.0
SLH0630-R20M-N	0.20	2.40	3.00	41.0	24.0
SLH0630-R22M-N	0.22	2.50	2.80	40.0	23.0
SLH0630-R33M-N	0.33	3.50	3.90	30.0	20.0
SLH0630-R47M-N	0.47	4.00	4.20	26.0	17.5
SLH0630-R68M-N	0.68	5.00	5.50	25.0	15.5
SLH0630-R82M-N	0.82	6.70	8.50	24.0	13.0
SLH0630-1R0M-N	1.00	9.00	10.0	22.0	11.0
SLH0630-1R5M-N	1.50	14.0	15.0	18.0	9.00
SLH0630-2R2M-N	2.20	18.0	20.0	14.0	8.00
SLH0630-3R3M-N	3.30	28.0	30.0	13.5	6.00
SLH0630-4R7M-N	4.70	37.0	40.0	10.0	5.50
SLH0630-6R8M-N	6.80	54.0	60.0	8.00	4.50
SLH0630-8R2M-N	8.20	64.0	68.0	7.50	4.00
SLH0630-100M-N	10.0	102	105	7.00	3.00

Note:

Inductance test frequency at 100 KHz

Isat: DC current at which the inductance drops 30% from its value without current

I_{rms}: The actual current when temperature of coil becomes ΔT = 40 °C

ELECTRICAL CHARACTERISTIC SLH0650

PART NO.	INDUCTANCE (μH) $\pm 20\%$	DC RESISTANCE ($\text{m}\Omega$)		Isat (A) Max.	I _{rms} (A) Max.
		TYPICAL	Max.		
SLH0650-R56M-N	0.56	3.40	3.60	12.0	20.0
SLH0650-R68M-N	0.68	4.20	4.50	11.5	18.0
SLH0650-R82M-N	0.82	4.60	4.90	13.0	16.5
SLH0650-1R0M-N	1.00	5.60	6.50	15.0	13.0
SLH0650-1R5M-N	1.50	8.60	9.00	12.0	12.0
SLH0650-2R2M-N	2.20	13.0	13.6	10.0	10.0
SLH0650-3R3M-N	3.30	19.9	20.9	8.00	8.00
SLH0650-4R7M-N	4.80	28.9	30.3	7.00	6.50
SLH0650-5R6M-N	5.60	32.7	34.4	7.00	6.00
SLH0650-6R8M-N	6.80	42.5	44.6	5.50	5.50
SLH0650-8R2M-N	8.20	43.5	45.6	5.50	5.50
SLH0650-100M-N	10.0	67.9	71.3	4.50	4.50

ELECTRICAL CHARACTERISTICS SLH1040

PART NO.	INDUCTANCE (μH) $\pm 20\%$	DC RESISTANCE ($\text{m}\Omega$)		Isat (A) Max.	I _{rms} (A) Max.
		TYPICAL	Max.		
SLH1040-R19M-N	0.19	0.88	0.95	90.0	40.0
SLH1040-R36M-N	0.36	1.30	1.40	60.0	31.5
SLH1040-R56M-N	0.56	1.70	1.80	49.0	27.5
SLH1040-1R0M-N	1.00	3.70	4.10	36.0	17.5
SLH1040-1R5M-N	1.50	5.30	5.80	27.5	15.0
SLH1040-2R2M-N	2.20	8.20	9.00	25.5	12.0
SLH1040-3R3M-N	3.30	10.8	11.8	18.6	10.0
SLH1040-4R7M-N	4.70	15.0	16.5	17.0	9.50
SLH1040-5R6M-N	5.60	17.6	19.3	16.0	8.50
SLH1040-6R8M-N	6.80	21.2	23.5	13.5	8.00
SLH1040-100M-N	10.0	33.2	36.5	12.0	6.80



ELECTRICAL CHARACTERISTIC SLHI250

PART NO.	INDUCTANCE (μH) $\pm 20\%$	DC RESISTANCE ($\text{m}\Omega$)		Isat (A) Max.	Irms (A) Max.
		TYPICAL	Max.		
SLHI250-R10M-N	0.10	0.53	0.60	118	55.0
SLHI250-R22M-N	0.22	0.64	0.80	110	51.0
SLHI250-R33M-N	0.33	0.85	1.10	80.0	42.0
SLHI250-R47M-N	0.47	1.10	1.30	65.0	38.0
SLHI250-R56M-N	0.56	1.30	1.50	55.0	36.0
SLHI250-R68M-N	0.68	1.50	1.70	54.0	34.0
SLHI250-R82M-N	0.82	2.00	2.30	53.0	31.0
SLHI250-1R0M-N	1.00	2.14	2.65	50.0	29.0
SLHI250-1R5M-N	1.50	3.40	4.10	48.0	23.0
SLHI250-2R2M-N	2.20	4.60	5.50	32.0	20.0
SLHI250-3R3M-N	3.30	7.70	9.20	32.0	15.0
SLHI250-4R7M-N	4.70	12.8	15.0	27.0	12.0
SLHI250-5R6M-N	5.60	14.0	16.5	22.0	11.5
SLHI250-6R8M-N	6.80	15.4	18.5	21.0	11.0
SLHI250-7R8M-N	7.80	17.2	20.5	18.0	10.0
SLHI250-8R2M-N	8.20	18.9	22.5	18.0	9.50
SLHI250-100M-N	10.0	21.4	25.5	16.0	9.00

Note:

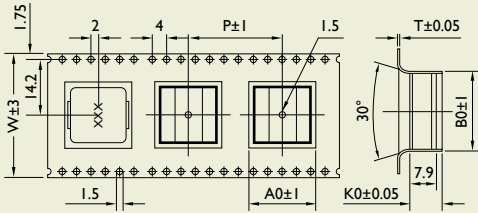
Inductance test frequency at 100 KHz

Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes $\Delta T = 40\text{ }^\circ\text{C}$

TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SLH0630	7.20	6.70	3.00	8.00	16.00	0.40
SLH0650	7.20	6.70	5.00	8.00	16.00	0.50
SLH1040	11.50	10.30	4.00	16.00	24.00	0.50
SLH1250	13.70	12.90	5.00	16.00	24.00	0.50

PACKAGING QUANTITY

TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SLH0630	v	1,000	3	5	15,000
SLH0650	v	1,000	3	5	15,000
SLH1040	v	800	2	5	8,000
SLH1250	v	500	2	5	5,000