

KPOHS Molded Power Inductors

Molded wire wound SMD power inductors, 2.0×1.6 to 13.5×12.8 mm — selection table

Features

- High rated current
- Frequency up to 3 MHz
- Low core loss
- Ultra-low buzz noise due to molded construction

SERIES
21 sizes, 2.0×1.6 to 13.5×12.8 mm

INDUCTANCE
0.1 – 150 μ H

OPERATING TEMPERATURE
–40 °C to +85 °C ①

PART NUMBERS
292

Applications

Laptops and PCs, switches and servers, base stations, DC/DC converters, battery-powered devices, SSD modules.

Part numbering

KPOHS
Type
Wire wound chip inductor (molded)

201610
Size (L×W, mm)
201610 = 2.0×1.6×1.0 mm

R47
Nominal inductance
R10 = 0.1 μ H, 1R0 = 1.0 μ H, 100 = 10 μ H

M
Tolerance
K $\pm$ 10%, M $\pm$ 20% (appendix also lists J, N)

Example: KPOHS201610-R47 M

Dimensions (mm)

Type	L	W	T max	E	
KPOHS201610	2.0±0.2	1.6±0.2	1.0	0.50±0.30	
KPOHS252010	2.5±0.2	2.0±0.2	1.0	0.60±0.30	
KPOHS252012	2.5±0.2	2.0±0.2	1.2	0.60±0.30	
KPOHS322512	3.2±0.2	2.5±0.2	1.2	0.60±0.30	

Type	A	B	C max	D	E
KPOHS0412	4.4±0.35	4.2±0.25	1.0±0.2	0.8±0.3	2.0±0.3
KPOHS0402	4.4±0.35	4.2±0.25	1.8±0.2	0.8±0.3	2.0±0.3
KPOHS0518	5.4±0.35	5.2±0.25	1.6±0.2	1.2±0.3	2.2±0.3
KPOHS0502	5.4±0.35	5.2±0.25	1.8±0.2	1.2±0.3	2.2±0.3
KPOHS0503	5.4±0.35	5.2±0.25	2.8±0.2	1.2±0.3	2.2±0.3
KPOHS0618	7.1±0.50	6.6±0.25	1.6±0.2	1.6±0.3	3.0±0.3
KPOHS0618 ⑤	7.1±0.50	6.6±0.25	1.8±0.2	1.6±0.3	3.0±0.3
KPOHS0624	7.1±0.50	6.6±0.25	2.2±0.2	1.6±0.3	3.0±0.3
KPOHS0603	7.1±0.50	6.6±0.25	2.8±0.2	1.6±0.3	3.0±0.3
KPOHS0604	7.1±0.50	6.6±0.25	3.8±0.2	1.6±0.3	3.0±0.3
KPOHS0605	7.1±0.50	6.6±0.25	4.8±0.2	1.6±0.3	3.0±0.3
KPOHS1004	11.0±0.5	10±0.30	3.8±0.2	2.0±0.5	3.0±0.5
KPOHS1005	11.0±0.5	10±0.30	4.8±0.2	2.0±0.5	3.0±0.5
KPOHS1204	13.5±0.5	12.8±0.5	3.8±0.2	2.0±0.5	4.3±1.0
KPOHS1205	13.5±0.5	12.8±0.5	4.8±0.2	2.0±0.5	4.3±1.0
KPOHS1206	13.5±0.5	12.8±0.5	5.8±0.2	2.0±0.5	5.0±0.3
KPOHS1265	13.5±0.5	12.8±0.5	6.3±0.2	2.0±0.5	5.0±0.3

Operating temperature range: –40 °C to +85 °C. Storage: –10 °C to +40 °C, 70% RH.

Electrical characteristics

KPOHS201610 — L measured at @1MHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS201610-R24□	0.24	21	5.05	4.5
KPOHS201610-R33□	0.33	29	4.5	3.69
KPOHS201610-R47□	0.47	40	4	3.15
KPOHS201610-R68□	0.68	49	3.33	3.06
KPOHS201610-1R0□	1	69	2.61	2.26
KPOHS201610-1R5□	1.5	129	2.25	1.81
KPOHS201610-2R2□	2.2	150	1.71	1.5

KPOHS252010 — L measured at @1MHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS252010-R22□	0.22	12.5	7.2	5.3
KPOHS252010-R24□	0.24	14	7	4.8
KPOHS252010-R33□	0.33	26	6	4
KPOHS252010-R47□	0.47	32	4.5	3.51
KPOHS252010-R68□	0.68	44	3.87	3.06
KPOHS252010-1R0□	1	54	3.15	2.7
KPOHS252010-1R5□	1.5	91	2.34	2.25
KPOHS252010-2R2□	2.2	119	2.16	2.07
KPOHS252010-4R7□	4.7	262	1.62	1.22

KPOHS252012 — L measured at @1MHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS252012-R47□	0.47	25	4.95	4.18
KPOHS252012-R68□	0.68	35	4.63	3.36
KPOHS252012-1R0□	1	49	4.04	3.18
KPOHS252012-1R5□	1.5	77	2.91	2.27
KPOHS252012-2R2□	2.2	98	2.73	2.06
KPOHS252012-4R7□	4.7	235	1.58	1.4

KPOHS322512 — L measured at @1MHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS322512-R47□	0.47	19	7.0	5.2
KPOHS322512-R68□	0.68	25	5.8	4.4
KPOHS322512-1R0□	1.00	32	5.0	4.4
KPOHS322512-2R2□	2.20	72	3.5	2.7
KPOHS322512-4R7□	4.70	162	1.8	1.4
KPOHS322512-6R8□	6.80	210	2.1	1.2

KPOHS0412 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0412-R15□	0.15	9	15	7.5
KPOHS0412-R22□	0.22	11	11	7
KPOHS0412-R33□	0.33	19	8.4	6.5
KPOHS0412-R47□	0.47	21	6.8	6
KPOHS0412-R68□	0.68	36	6	4.7
KPOHS0412-1R0□	1	47	5.5	4.5
KPOHS0412-1R5□	1.5	75	4	3.25
KPOHS0412-2R2□	2.2	83.5	3	2.75
KPOHS0412-4R7□	4.7	195	2.2	1.8

KPOHS0402 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0402-R10□	0.1	4	22	12
KPOHS0402H-R10□	0.1	4	22	13
KPOHS0402-R22□	0.22	6.6	12.5	9
KPOHS0402-R33□	0.33	12.5	11	8
KPOHS0402H-R33□	0.33	11	12	10
KPOHS0402-R47□	0.47	14	9.5	7.5
KPOHS0402-R56□	0.56	16	9	7
KPOHS0402-R68□	0.68	20	8	5.2
KPOHS0402H-R68□	0.68	18	8	7
KPOHS0402-1R0□	1	30	7	4.5
KPOHS0402H-1R0□	1	27	7	6
KPOHS0402-1R2□	1.2	35	6.5	4.2
KPOHS0402-1R2□	1.2	27	6.5	6
KPOHS0402-1R5□	1.5	46	6	4
KPOHS0402-2R2□	2.2	60	5	3
KPOHS0402H-2R2□	2.2	58	5	4.5
KPOHS0402-3R3□	3.3	90	4	2.5
KPOHS0402H-3R3□	3.3	87	3.5	3.3
KPOHS0402-4R7□	4.7	122	3	2.2
KPOHS0402-4R7□	4.7	105	3	2.8
KPOHS0402-6R8□	6.8	175	2.5	1.5
KPOHS0402-100□	10	282	2	1.6
KPOHS0402-220□	22	500	1.4	1.2

KPOHS0518 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0518-R47□	0.47	9	12	10.5
KPOHS0518-R56□	0.56	10	11	9.5
KPOHS0518-1R0□	1	17	9	8
KPOHS0518-1R5□	1.5	26	8	7.5
KPOHS0518-2R2□	2.2	35	6	5
KPOHS0518-3R3□	3.3	58	4.8	4.5
KPOHS0518-4R7□	4.7	85	4	3.5
KPOHS0518-6R8□	6.8	120	3.4	2.8
KPOHS0518-100□	10	155	2.5	2.5

KPOHS0502 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0502-R10□	0.10	3.4	20	16
KPOHS0502-R12□	0.12	3.8	19	15
KPOHS0502-R15□	0.15	4.2	18	15
KPOHS0502-R22□	0.22	6.9	15	14
KPOHS0502-R47□	0.47	12	12	9.5
KPOHS0502-R68□	0.68	15	11	8.5
KPOHS0502-1R0□	1	20	10	8
KPOHS0502-1R5□	1.5	31	8	6
KPOHS0502-2R2□	2.2	43	6.5	4.5
KPOHS0502-3R3□	3.3	64	5.5	3.7
KPOHS0502-4R7□	4.7	92	4.5	3.0
KPOHS0502-5R6□	5.6	105	4.0	2.8
KPOHS0502-6R8□	6.8	136	3.8	2.2
KPOHS0502-100□	10	187	3	2.0
KPOHS0502-150□	15	242	2.5	1.8
KPOHS0502-220□	22	381	1.8	1.5

KPOHS0503 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0503-R10□	0.1	3	30	20
KPOHS0503-R20□	0.2	3.9	20	14
KPOHS0503-R33□	0.33	7	18	14
KPOHS0503-R47□	0.47	8.5	15	11
KPOHS0503-R68□	0.68	12	11.5	9
KPOHS0503-1R0□	1	15	10	7
KPOHS0503-1R2□	1.2	16	9.5	7
KPOHS0503-1R5□	1.5	30	8.5	6
KPOHS0503H-1R5□	1.5	25	9	8.2
KPOHS0503-2R2□	2.2	29	7	5.5
KPOHS0503H-2R2□	2.2	29	8	7
KPOHS0503-3R3□	3.3	38	6	4.5
KPOHS0503-4R7□	4.7	60	5	4
KPOHS0503-6R8□	6.8	90	4.5	3.5
KPOHS0503-100□	10	135	3.5	2.5
KPOHS0503-100□	10	125	3.5	3.2

KPOHS0618 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0618-R10□	0.1	2.3	38	25
KPOHS0618-R22□	0.22	3.5	24	22
KPOHS0618-R47□	0.47	8.4	18	11.5
KPOHS0618-R68□	0.68	12	16.5	9.5
KPOHS0618-1R0□	1	16	12	8.5
KPOHS0618-1R5□	1.5	26	9.2	8
KPOHS0618-2R2□	2.2	35	8	7
KPOHS0618-3R3□	3.3	50	6	4.5
KPOHS0618-4R7□	4.7	62	5	4
KPOHS0618-6R8□	6.8	110	4.5	3
KPOHS0618-100□	10	155	4	2.3
KPOHS0618-220□	22	350	2.3	1.8

KPOHS0602 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0602-R10□	0.10	2.6	32.0	22.0
KPOHS0602-R15□	0.15	2.8	28.0	20.0
KPOHS0602-R22□	0.22	3.5	23.0	16.0
KPOHS0602-R33□	0.33	5.4	22.0	14.0
KPOHS0602-R47□	0.47	8.2	18.0	12.0
KPOHS0602-R68□	0.68	11.4	16.0	9.0
KPOHS0602-R82□	0.82	20.0	13.0	8.0
KPOHS0602-1R0□	1.00	20.0	13.0	8.0
KPOHS0602-1R5□	1.50	24.0	11.0	6.0
KPOHS0602-2R2□	2.20	36.0	8.5	5.8
KPOHS0602-3R3□	3.30	53.0	6.5	4.0
KPOHS0602-4R7□	4.70	98.0	6.0	3.5
KPOHS0602-6R8□	6.80	106.0	3.5	3.0
KPOHS0602-100□	10.0	170.0	3.0	2.0

KPOHS0624 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0624-R22□	0.22	3	30	21
KPOHS0624-R33□	0.33	4.1	24.5	18
KPOHS0624-R47□	0.47	5.1	20	15
KPOHS0624-R56□	0.56	6.5	17	13
KPOHS0624-R68□	0.68	7	16	12
KPOHS0624-1R0□	1	13.5	15	9
KPOHS0624-1R5□	1.5	20	13.5	8.2
KPOHS0624-2R2□	2.2	28	10	7
KPOHS0624-3R3□	3.3	39	8	5.5
KPOHS0624-4R7□	4.7	50	6.5	5
KPOHS0624-6R8□	6.8	70	6	4
KPOHS0624-100□	10	101	4	3.1
KPOHS0624-150□	15	160	3.3	2.5
KPOHS0624-220□	22	230	2.5	2

KPOHS0603 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0603-R22□	0.22	3	34	24
KPOHS0603-R33□	0.33	3.5	25	21
KPOHS0603-R47□	0.47	4.1	20	18
KPOHS0603-R56□	0.56	4.5	18	16.5
KPOHS0603-R68□	0.68	6	17	16
KPOHS0603-R82□	0.82	7	16	14
KPOHS0603-1R0□	1	7	15	12
KPOHS0603-1R5□	1.5	13	12	9
KPOHS0603H-1R5□	1.5	12.1	12	12
KPOHS0603-2R2□	2.2	18	10	8.5
KPOHS0603H-2R2□	2.2	15	10	9.5
KPOHS0603-3R3□	3.3	36	9.5	6
KPOHS0603H-3R3□	3.3	22	9.5	8.5
KPOHS0603-4R7□	4.7	40	8	5
KPOHS0603H-4R7□	4.7	33	9	6
KPOHS0603-5R6□	5.6	55	6.5	4.8
KPOHS0603H-5R6□	5.6	42	7.5	5.5
KPOHS0603-6R8□	6.8	60	6.5	4.5
KPOHS0603-8R2□	8.2	70	6	4
KPOHS0603-100□	10	105	5.5	3
KPOHS0603H-100□	10	68	5.5	4.5
KPOHS0603-150□	15	130	4	2.6
KPOHS0603H-150□	15	113	4	3
KPOHS0603-220□	22	170	3	2.3
KPOHS0603-330□	33	270	2.5	2
KPOHS0603-470□	47	385	2	1.7

KPOHS0604 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0604-2R2□	2.2	14	11	9
KPOHS0604-4R7□	4.7	30	9	7
KPOHS0604-150□	15	110	4.5	3.5

KPOHS0605 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS0605-R47□	0.47	3.9	21	20
KPOHS0605-R68□	0.68	4.5	18	16.5
KPOHS0605-1R0□	1	6.6	16	12
KPOHS0605-1R5□	1.5	10	13	9.5
KPOHS0605-2R2□	2.2	12.5	11	9
KPOHS0605-3R3□	3.3	22	10	8.5
KPOHS0605-4R7□	4.7	29	8	6
KPOHS0605-5R6□	5.6	35	7.5	6
KPOHS0605-6R8□	6.8	41	6.3	5.8
KPOHS0605-8R2□	8.2	48	5.5	5.5
KPOHS0605-100□	10	60	5.3	4.5
KPOHS0605-150□	15	90	4	3.1
KPOHS0605-220□	22	140	3.5	2.6
KPOHS0605-330□	33	190	3	2.3
KPOHS0605-470□	47	230	2.6	2

KPOHS1004 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1004-R15□	0.15	0.85	60	40
KPOHS1004H-R15□	0.15	0.65	75	45
KPOHS1004-R22□	0.22	1	60	35
KPOHS1004-R30□	0.3	1.5	45	30
KPOHS1004-R36□	0.36	1.2	45	30
KPOHS1004-R47□	0.47	1.7	40	30
KPOHS1004-R56□	0.56	1.8	33	25
KPOHS1004-R68□	0.68	2.4	30	23
KPOHS1004-R80□	0.8	2.9	29	20
KPOHS1004-1R0□	1	4	28	19
KPOHS1004-1R5□	1.5	5	24	16
KPOHS1004-2R2□	2.2	8	18	12
KPOHS1004-3R3□	3.3	12	16	11
KPOHS1004-4R7□	4.7	18	14	9
KPOHS1004-6R8□	6.8	25	12	8.5
KPOHS1004-8R2□	8.2	27	9	8
KPOHS1004-100□	10	38	8.5	6
KPOHS1004H-100□	10	30	8.5	7.8
KPOHS1004-150□	15	56	7	6
KPOHS1004-220□	22	72	6	5
KPOHS1004-330□	33	98	5	4
KPOHS1004-470□	47	145	4	3.3
KPOHS1004-680□	68	240	3.5	2.5

KPOHS1005 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1005-R47□	0.47	1.3	44	35
KPOHS1005-R82□	0.82	2.6	26	22
KPOHS1005-1R0□	1	2.6	25	19.5
KPOHS1005-1R5□	1.5	5	20	15
KPOHS1005-2R2□	2.2	6	20	14
KPOHS1005-3R3□	3.3	8	16	13
KPOHS1005-4R7□	4.7	15	15	9
KPOHS1005-5R6□	5.6	17	14	8.5
KPOHS1005-6R8□	6.8	22	13	8
KPOHS1005-8R2□	8.2	30	12	7
KPOHS1005-100□	10	32	11	7
KPOHS1005-150□	15	43	9	6
KPOHS1005-220□	22	63	7	5.5
KPOHS1005-330□	33	87	6	5
KPOHS1005-470□	47	125	4.5	3.5
KPOHS1005-680□	68	170	4.5	2.5
KPOHS1005-101□	100	280	3.5	2.5

KPOHS1204 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1204-R22□	0.22	0.9	50	42
KPOHS1204-R47□	0.47	2	48	33
KPOHS1204-R68□	0.68	3.5	47	28
KPOHS1204-R82□	0.82	4.5	40	28
KPOHS1204-1R0□	1	7.5	35	24
KPOHS1204-1R5□	1.5	9.5	30.5	20
KPOHS1204-2R2□	2.2	11.5	26	18
KPOHS1204-3R3□	3.3	13	21	15
KPOHS1204-4R7□	4.7	14.5	18	13
KPOHS1204-6R8□	6.8	20	14	9
KPOHS1204-100□	10	25	10	8
KPOHS1204-150□	15	39	7.5	6.5
KPOHS1204-220□	22	51	6	4.5

KPOHS1205 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1205-R22□	0.22	0.7	75	50
KPOHS1205-R36□	0.36	0.85	50	42
KPOHS1205-R50□	0.5	1.15	48	38
KPOHS1205-R68□	0.68	1.55	46	33
KPOHS1205-R82□	0.82	1.67	39	30
KPOHS1205-1R0□	1	2.2	35	26
KPOHS1205-1R5□	1.5	3.2	33	23
KPOHS1205-2R2□	2.2	5	24	15
KPOHS1205-3R3□	3.3	7	22	14
KPOHS1205-4R7□	4.7	9	20	13
KPOHS1205-6R8□	6.8	18	16	12
KPOHS1205-100□	10	22	12	9
KPOHS1205-150□	15	30	10	8
KPOHS1205-220□	22	58	6.5	4.5
KPOHS1205-330□	33	84	6	3.5
KPOHS1205-470□	47	130	5	3

KPOHS1206 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1206-4R7□	4.7	9	24	15
KPOHS1206-5R6□	5.6	11	22.5	13
KPOHS1206-6R8□	6.8	13.5	19	12
KPOHS1206-8R2□	8.2	16	13.5	11
KPOHS1206-100□	10	20.7	12.5	10
KPOHS1206-120□	12	23	10	9
KPOHS1206-150□	15	29	9	8.5
KPOHS1206-180□	18	35	8	7.5
KPOHS1206-220□	22	39.5	7.5	7
KPOHS1206-270□	27	56	6.5	6
KPOHS1206-330□	33	75	6	5.5
KPOHS1206-470□	47	90	5.5	5
KPOHS1206-680□	68	140	4.5	4
KPOHS1206-101□	100	200	3.5	3
KPOHS1206-121□	120	235	3.2	2
KPOHS1206-151□	150	350	2.7	1.5

KPOHS1265 — L measured at @100kHz 1V

Part number	L (μH)	DCR max (mΩ)	Isat (A)	Irms (A)
KPOHS1265-R33□	0.33	1	60	45
KPOHS1265-R47□	0.47	1.3	60	41
KPOHS1265-R56□	0.56	1.2	58	37
KPOHS1265-R68□	0.68	1.4	46	33
KPOHS1265-R82□	0.82	1.8	35	24
KPOHS1265-1R0□	1	2.5	40	24
KPOHS1265-1R5□	1.5	2.6	32	23
KPOHS1265-2R2□	2.2	4.3	27	22
KPOHS1265-3R3□	3.3	6.5	26	18
KPOHS1265-4R7□	4.7	9	20	15
KPOHS1265-5R6□	5.6	11	20	14
KPOHS1265-6R8□	6.8	12	17	12
KPOHS1265-8R2□	8.2	18	16	11
KPOHS1265-100□	10	20	14	10
KPOHS1265-150□	15	34	12	9
KPOHS1265-220□	22	45	10	7
KPOHS1265-330□	33	66	8	6
KPOHS1265-470□	47	75	6	5.5
KPOHS1265-680□	68	128	5	4.5
KPOHS1265-101□	100	180	4.5	3
KPOHS1265-121□	120	235	3.2	2.3
KPOHS1265-151□	150	350	2.7	2

□ = inductance tolerance code. Please specify the tolerance when ordering. Full product specifications are available on request; please contact us.

- ① The original features list says '125 °C maximum total temperature operation', while the specification section gives an operating range of –40 °C to +85 °C. The range is shown here; the 125 °C figure is not reproduced — subject to manufacturer confirmation.
- ② All electrical values as printed in the original appendix; L test conditions as printed per series (1 MHz 1 V or 100 kHz 1 V). Test equipment and reliability tests not reproduced — subject to manufacturer confirmation.
- ③ Tolerance codes: p.3 lists K/M only; appendix notes list J/K/M/N. Subject to manufacturer confirmation.
- ④ Three part numbers appear twice with different values in the original (KPOHS0402-1R2, KPOHS0402-4R7, KPOHS0503-100); both rows kept as printed. 'H' variants (0402H, 0503H, 0603H, 1004H) are not explained in the original. Subject to manufacturer confirmation.
- ⑤ The p.3 dimension table lists KPOHS0618 twice (C max 1.6 and 1.8) and has no KPOHS0602 row, while the appendix has a KPOHS0602 table. Kept as printed — subject to manufacturer confirmation.