Winding shield inductance: HWI Series

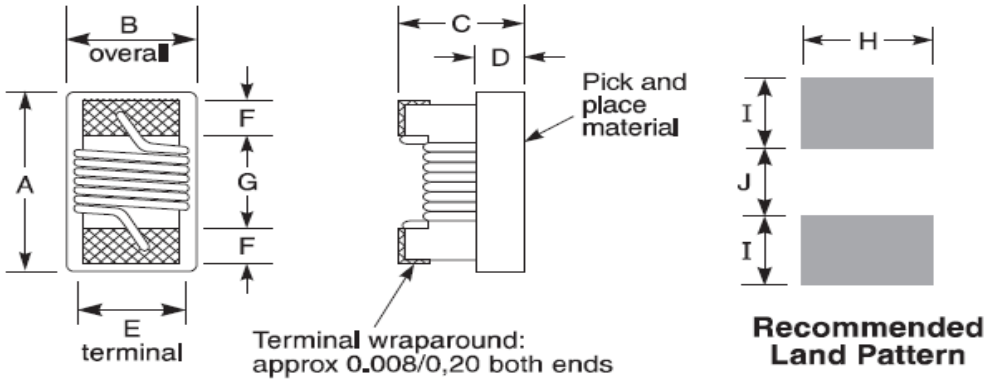
Various high power inductors are superior to be high saturation for surface mounting. Application for power supply for Bluetooth, OA equipment, notebook PC, portable communication equipments, DC/DC converters, High Frequency circuit. etc.

Part number

HWI	XXXX	R	XXX	M	XX	X0
1	2	3	4	5	6	7

(1) Product Code	HWI
(2) Size Code	1608=1.6x0.8mm 2012=2.0x1.2mm
(3) Packing	R= Tape and reel
(4) Inductance Code	101=100nH 102=1.0uH 103=10uH 104=100uH
(5) Tolerance	J=5% K=10% M=20%
(6) Series	XX
(7) Type	C=1.2mm F=1.2mm L=1.3mm

Dimension and Terminal Configuration



Type	A max (mm)	B max (mm)	C max (mm)	D ref (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
1608	1.80	1.32	1.12	0.38	0.76	0.33	0.86	1.02	0.64	0.64
2012	2.29	1.73	1.3	0.61	1.27	0.51	1.02	1.78	1.02	0.76

Winding shield inductance: HWI Series

Electrical Specification

Electrical characteristics：

1.All test date is referenced to 25℃ ambient
2.Inductance measure condition at 100kHz, 1V
3.Isat: the actual value of DC current when the inductance decrease 30% of its initial value.
4.Irms:Temperature rise current the actual value of DC current when the temperature rise is ΔT40 (Ta=25).

HWI 1608 WL Series

Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	Isat (A) Max Saturation Current	Irms (A) Heat Rating Current
HWI1608R102KWLC0	1.0	10	0.41	0.86	0.7
HWI1608R152KWLC0	1.5	10	0.52	0.72	0.6
HWI1608R222KWLC0	2.2	10	0.72	0.6	0.58
HWI1608R332KWLC0	3.3	10	0.91	0.5	0.5
HWI1608R392KWLC0	3.9	10	1.08	0.46	0.46
HWI1608R472KWLC0	4.7	10	0.97	0.4	0.42
HWI1608R682KWLC0	6.8	10	1.95	0.34	0.34
HWI1608R822KWLC0	8.2	10	2.18	0.3	0.3
HWI1608R103KWLC0	10	10	2.4	0.28	0.28

HWI 1608 CD Series

Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	SRF(MHz) min	Irms (A) Heat Rating Current
HWI1608R102JCDC0	1.0	5	0.42	102.00	0.64
HWI1608R222JCDC0	2.2	5	0.56	85.00	0.58
HWI1608R472JCDC0	4.7	5	0.97	51.00	0.50
HWI1608R103JCDC0	10	5	1.50	36.00	0.28
HWI1608R223JCDC0	22	5	3.61	24.00	0.2

HWI 1608 FS Series

Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	Isat (A) Max Saturation Current	Irms (A) Heat Rating Current
HWI1608R222JFSC0	2.2	5	0.56	0.75	0.58
HWI1608R472JFSC0	4.7	5	0.97	0.55	0.5
HWI1608R103JFSC0	10	5	1.5	0.35	0.28
HWI1608R153JFSC0	15	5	2.6	0.3	0.24
HWI1608R223JFSC0	22	5	3.61	0.2	0.2

Winding shield inductance: HWI Series

HWI 1608 TI Series

Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	Isat (A) Max Saturation Current	Irms (A) Heat Rating Current
HWI1608R102MTIA0	1.0	20	0.240	0.55	1.20
HWI1608R222MTIA0	2.2	20	0.430	0.35	1.00
HWI1608R472MTIA0	4.7	20	0.460	0.75	0.50

HWI 2012 WL Series

Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	Isat (A) Max Saturation Current	Irms (A) Heat Rating Current
HWI2012R102KWLF0	1.0	10	0.19	1.03	1.2
HWI2012R152KWLF0	1.5	10	0.17	0.85	1.1
HWI2012R222KWLF0	2.2	10	0.31	0.55	0.74
HWI2012R332KWLF0	3.3	10	0.36	0.42	0.62
HWI2012R392KWLF0	3.9	10	0.49	0.37	0.58
HWI2012R472KWLF0	4.7	10	0.56	0.32	0.52
HWI2012R682KWLF0	6.8	10	0.88	0.23	0.42
HWI2012R822KWLF0	8.2	10	0.94	0.20	0.4
HWI2012R103KWLF0	10	10	1.17	0.16	0.3

HWI 2012 CD Series

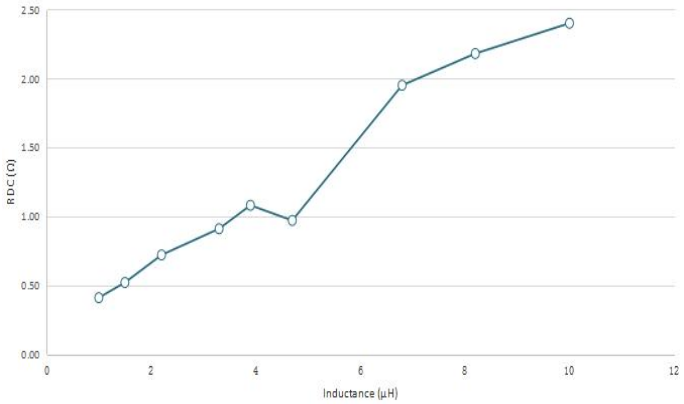
Part number	Inductance (uH)	Percent Tolerance ±%	DCR (Ω) DC Resistance	Isat (A) Max Saturation Current	Irms (A) Heat Rating Current
HWI2012R222JCDL0	2.2	5	0.22	0.8	1.04
HWI2012R472JCDL0	4.7	5	0.43	0.5	0.84
HWI2012R103JCDL0	10	5	0.85	0.35	0.56
HWI2012R153JCDL0	15	5	1.4	0.3	0.48
HWI2012R223JCDL0	22	5	1.76	0.25	0.34

Electrical characteristics：

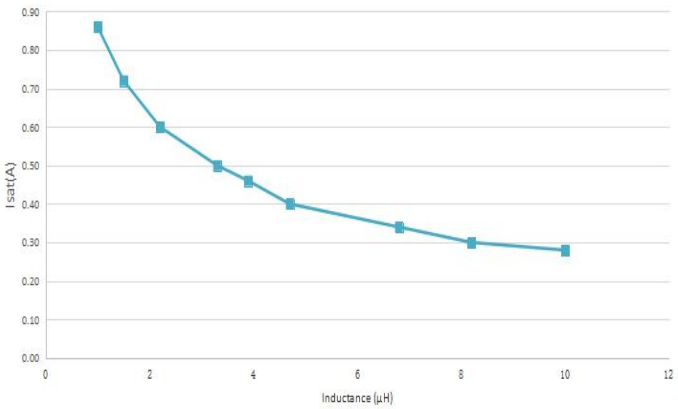
Note 1: Customized design is available, please contact us.
Note 2 : All test referenced to 26 ° C ambient.
Note 3: Inductance tolerance+/-20%.
Note 4: Inductance is measured with Agilent" LCR meter 4285A. Test frequency at 1MHz.
Note 5: DC resistance is measured with HIOKImicro-ohm meter RM3542-01.
Note 6: Isat means that DC current will cause a 30% inductance reduction form initial value.
Note 7: Irms means that DC current will cause coil temp. rising to 40C whichever is smaller.

Winding shield inductance: HWI Series

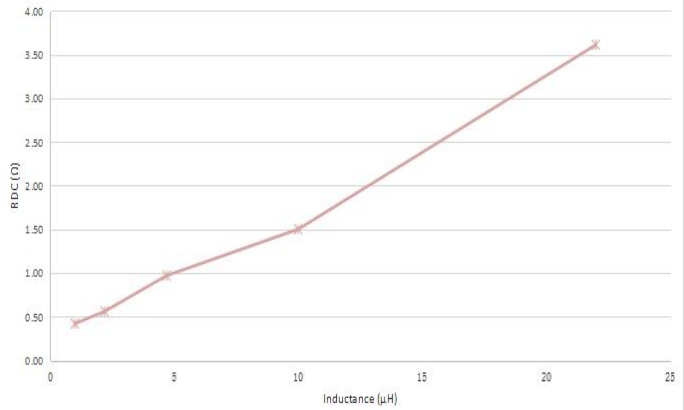
HWI-WL-1608



HWI-WL-1608



HWI-CD-1608



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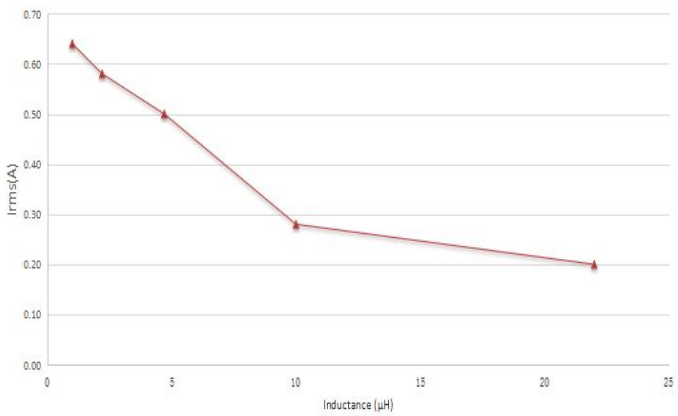
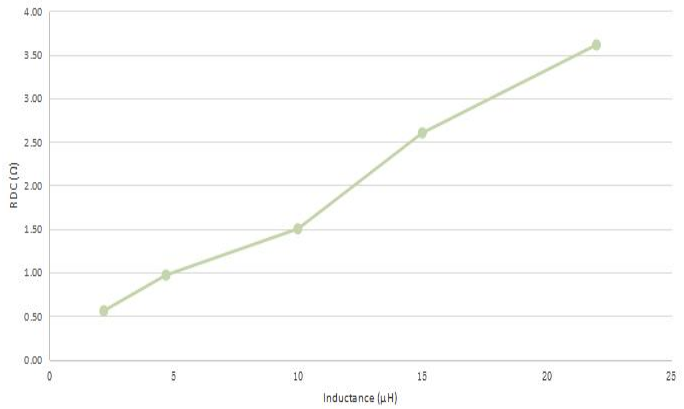


HWI-FS-1608



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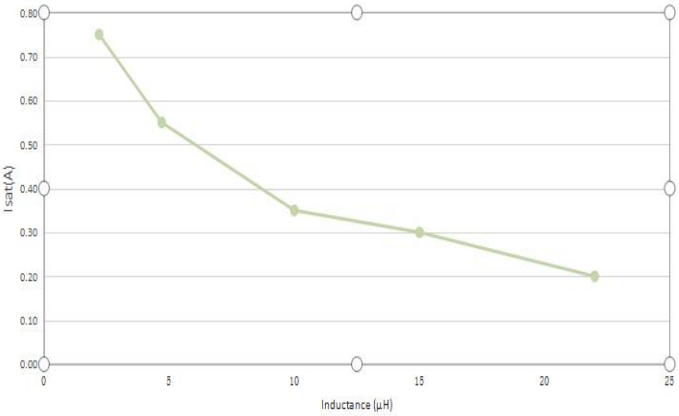
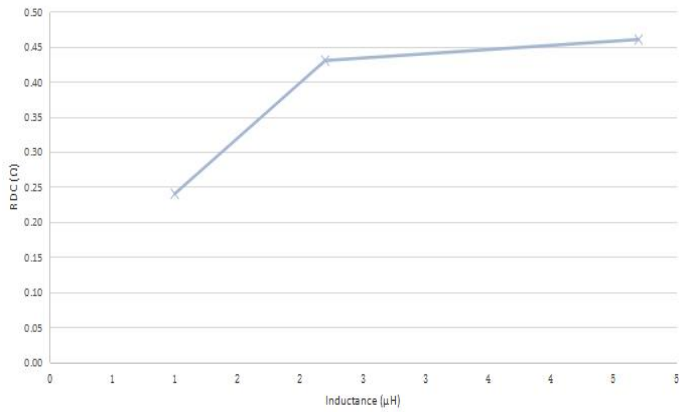
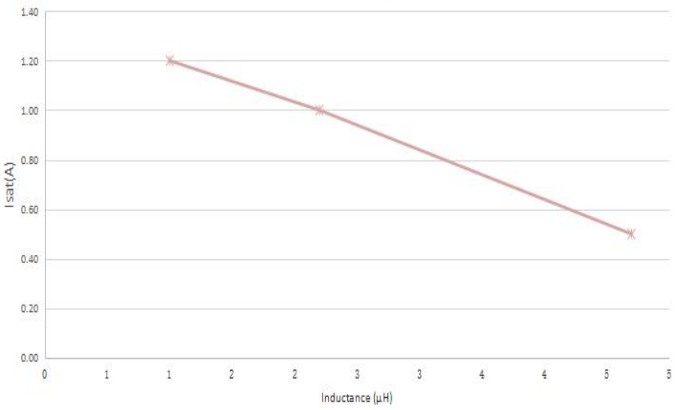


Winding shield inductance: HWI Series

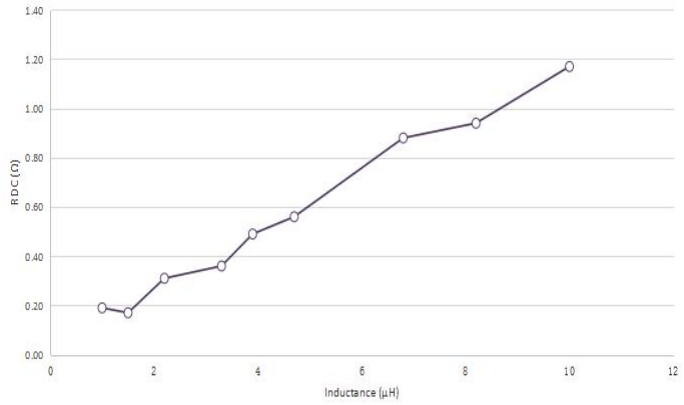
HWI-TI-1608



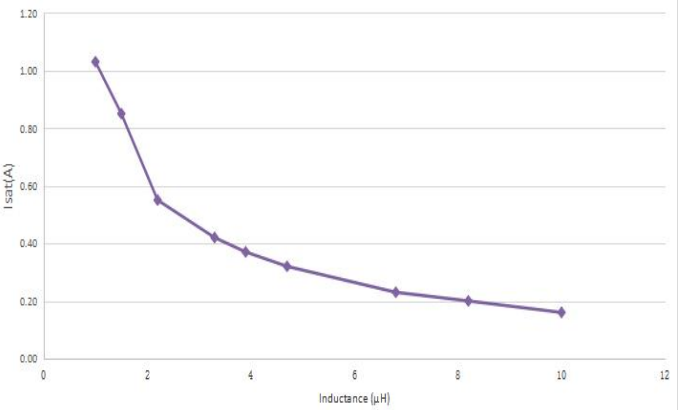
HWI-TI-1608



HWI-WL-2012



HWI-WL-2012



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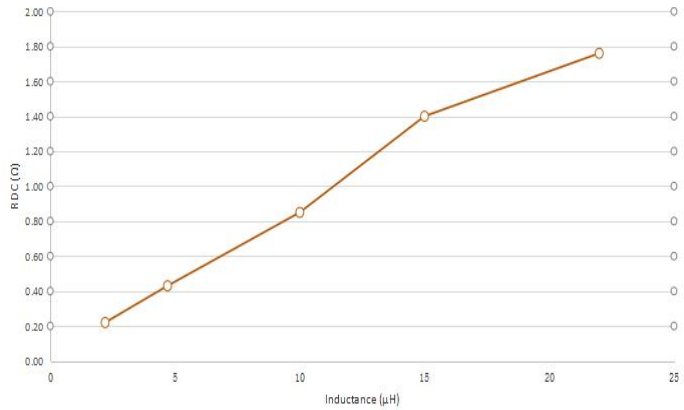
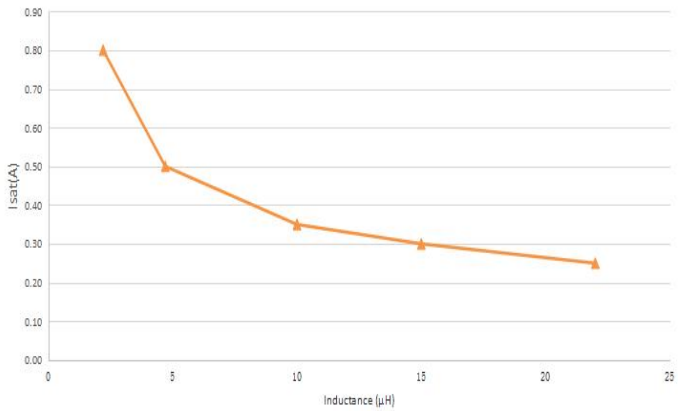


HWI-CD-2012

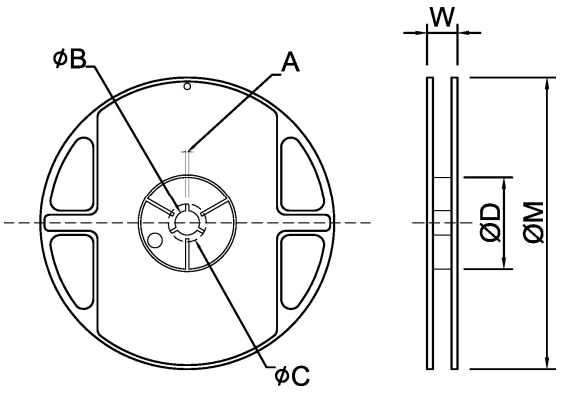


Winding shield inductance: HWI Series

Taping and Reel Specifications

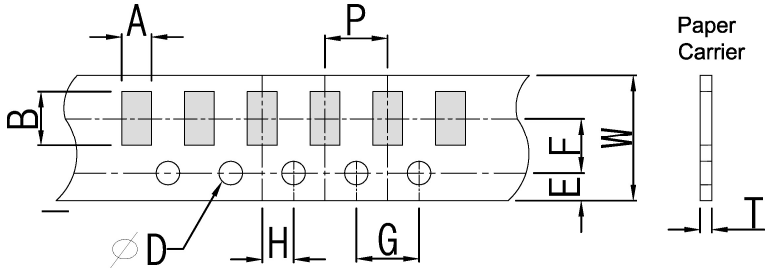
Reel and Taping Specification

Reel Specification



TYPE	SIZE		A	ψB	ψC	ψD	W	ψM
1608	7”	3K/Reel	2.0±0.5	13.5±1.0	21±1.0	60±1.0	11.5±2.0	178±2.0
2012	7”	3K/Reel	2.0±0.5	13.5±1.0	21±1.0	60±1.0	11.5±2.0	178±2.0

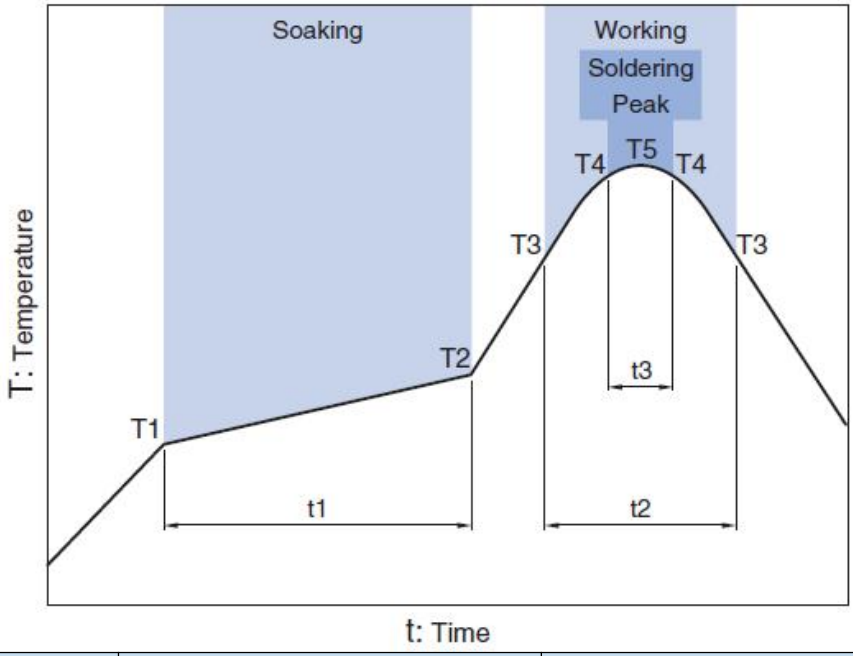
Tapping Specification



Type	A	B	W	E	F	G	H	T	φD	P
1608	1.7±0.20	2.3±0.20	8.0±0.20	1.75±0.10	3.0±0.05	4.0±0.10	2.0±0.05	0.75±0.10	1.50 +0.10 -0	4.0±0.1
2012	2.2±0.20	3.0±0.20	8.0±0.20	1.75±0.10	3.0±0.05	4.0±0.10	2.0±0.05	0.75±0.10	1.50 +0.10 -0	4.0±0.1

Recommended Reflow Profile

Pb free solder



Soaking			Working		Soldering		Peak
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

Revision History

Version	Date	Description
Ver.01	June .2023	New issue.
Ver.02	Aug .2023	Modify Series HWI-WF to Series HWI-WL.

Aug .2023 Ver. 02