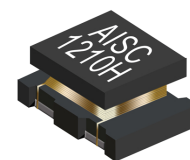


# UNSHIELDED SMD POWER INDUCTOR

AISC-1210H



RoHS  
Compliant



3.2 x 2.5 x 2.0mm

## FEATURES:

- Low DC resistance permits high current flow
- Exhibit low voltage drops and inductance variations with respect to temperature rise and DC current level
- Excellent solder heat resistance allows both flow and reflow soldering methods
- Excellent mechanical reliability suitable for automotive, safety application

## APPLICATIONS:

- Excellent for power line DC/DC conversion applications
- Used in video, communications, notebook computer and other electronic equipment

## STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N:	AISC-1210H-xxx Series
Operating temperature:	-25°C to + 85°C
Storage temperature:	-25°C to + 85°C, 70% RH max.

## OPTIONS & PART IDENTIFICATION:

[Left blank if standard]

AISC - 1210H - □□□□ - □

Inductance Code	Tolerance Code	Packaging
Please refer to the Table	Please refer to the Table	T      Tape & Reel

Abrakon Part Number	Inductance L (µH)	Test Frequency	SRF (MHz) Min	Rdc(mΩ) Max	Rated DC Current (A)
AISC-1210H-R15N	0.15	1.0 MHz	400	21	4.40
AISC-1210H-R27N	0.27	1.0 MHz	250	22	4.00
AISC-1210H-R39N	0.39	1.0 MHz	200	33	3.10
AISC-1210H-R82N	0.82	1.0 MHz	150	53	2.60
AISC-1210H-1R0N	1.0	1.0 MHz	100	63	2.30
AISC-1210H-1R2N	1.2	1.0 MHz	90	92	2.10
AISC-1210H-1R5N	1.5	1.0 MHz	80	100	1.70
AISC-1210H-1R8N	1.8	1.0 MHz	72	110	1.50
AISC-1210H-2R2N	2.2	1.0 MHz	64	124	1.30
AISC-1210H-2R4N	2.4	1.0 MHz	62	130	1.30
AISC-1210H-2R7N	2.7	1.0 MHz	60	132	1.20
AISC-1210H-3R3N	3.3	1.0 MHz	53	167	1.15
AISC-1210H-3R9N	3.9	1.0 MHz	45	222	1.00
AISC-1210H-4R7N	4.7	1.0 MHz	43	247	0.90
AISC-1210H-5R6N	5.6	1.0 MHz	38	359	0.78
AISC-1210H-6R8N	6.8	1.0 MHz	32	392	0.75
AISC-1210H-8R2N	8.2	1.0 MHz	30	450	0.70
AISC-1210H-100K	10.0	1.0 MHz	26	509	0.65
AISC-1210H-120K	12.0	1.0 MHz	26	674	0.61
AISC-1210H-150K	15.0	1.0 MHz	26	760	0.55
AISC-1210H-180K	18.0	1.0 MHz	20	978	0.45
AISC-1210H-220K	22.0	100 KHz	19	1000	0.43
AISC-1210H-270K	27.0	100 KHz	18	1240	0.38
AISC-1210H-330K	33.0	100 KHz	17	1940	0.35
AISC-1210H-390K	39.0	100 KHz	16	2000	0.33
AISC-1210H-470K	47.0	100 KHz	15	3200	0.30
AISC-1210H-560K	56.0	100 KHz	13	3640	0.25
AISC-1210H-680K	68.0	100 KHz	12	4060	0.21
AISC-1210H-820K	82.0	100 KHz	12	4580	0.20
AISC-1210H-101K	100.0	100 KHz	10	6880	0.18
AISC-1210H-121K	120.0	100 KHz	8	7470	0.16
AISC-1210H-151K	150.0	100 KHz	7	8320	0.14
AISC-1210H-181K	180.0	100 KHz	7	13160	0.12
AISC-1210H-221K	220.0	100 KHz	6.8	14400	0.10
AISC-1210H-271K	270.0	100 KHz	6	15000	0.08
AISC-1210H-331K	330.0	100 KHz	5.6	18900	0.06
AISC-1210H-391K	390.0	1 KHz	5	20400	0.06
AISC-1210H-471K	470.0	1 KHz	4	27500	0.06
AISC-1210H-561K	560.0	1 KHz	4	29800	0.05
AISC-1210H-681K	680.0	1 KHz	3.2	40000	0.04

I<sub>r</sub>: Rated current that will cause initial inductance value approximately 10% rolloff or coil temperature rise by 40°C without core loss, which ever is smaller. (Reference ambient temperature 20°C).

L: measured with CH-1061 with 1320

SRF: measured with HP-8714C RF network analyzer

Inductance tolerance: N: ±30%; K: ±10%

ABRACON IS  
ISO 9001 / QS 9000  
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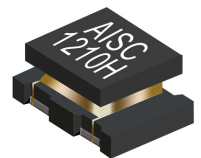
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# UNSHIELDED SMD POWER INDUCTOR

AISC-1210H

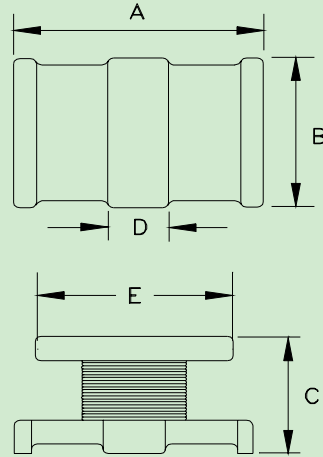


RoHS  
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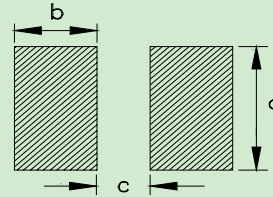


3.2 x 2.5 x 2.0mm

## OUTLINE DRAWING:



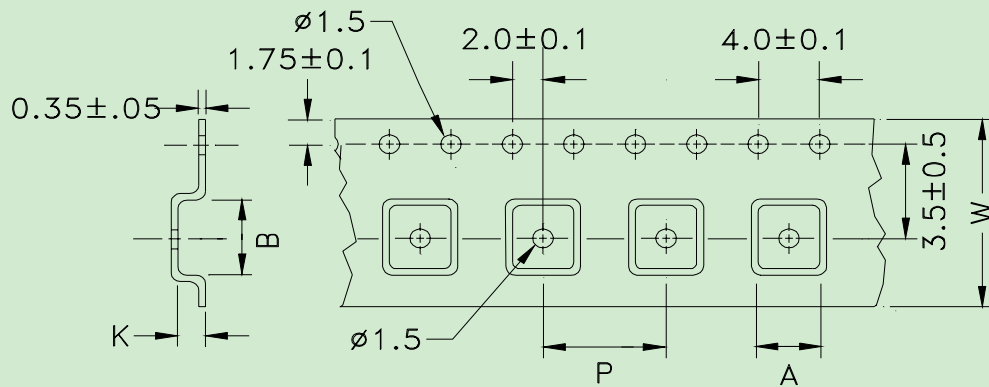
Recommended Land Pattern



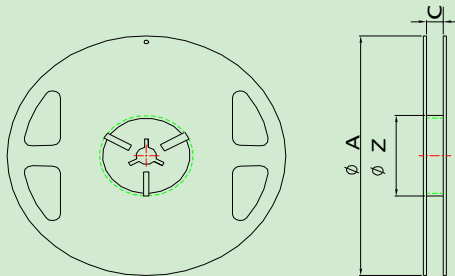
Series	A	B	C	D(ref)	E	a(ref)	b(ref)	c(ref)
AISC-1210H	0.126±0.012 (3.2 ±0.3)	0.098±0.008 (2.5 ±0.2)	0.079±0.012 (2.0 ±0.3)	0.039 (1.0)	0.098±0.008 (2.5 ±0.2)	0.118 (3.0)	0.051 (1.3)	0.039 (1.0)

Dimensions: inch  
(mm)

## TAPE & REEL: Tape and reel 4,000pcs/reel



ABRACON P/N	A (mm)	B (mm)	K (mm)	P (mm)	W (mm)	PCS/REEL
AISC-1210H	2.84 ± 0.1	3.71 ± 0.1	2.57 ± 0.1	4.0 ± 0.1	8.0 ± 0.3	1500



Series	A	C	Z
AISC-1210H	330-0.5	8.4+1.5	100±1.0

Dimensions: mm

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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