

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.

Abrakon Part Number	Inductance L (μH)	Test Frequency	SRF (MHz) Min	Rdc(m Ω) 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-R56N	0.56	1.0 MHz	180	50	2.90
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

TEST CONDITIONS:

I_r: 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).

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

ABRACON IS
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OPTIONS & PART IDENTIFICATION:

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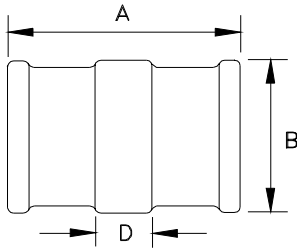
AISC - 1210H - -

Inductance Code
Please refer to the Table

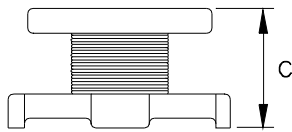
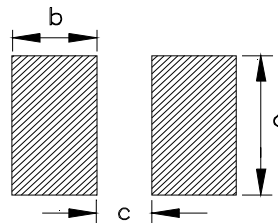
Tolerance Code
Please refer to the Table

Packaging
T : Tape & Reel (1500 pcs/ Reel)

OUTLINE DIMENSIONS:

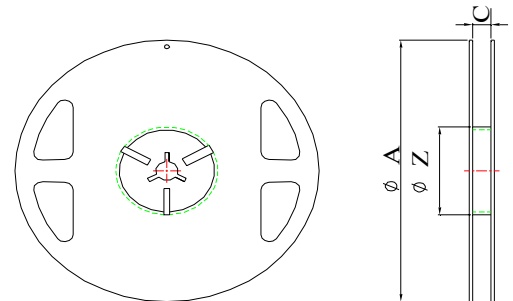
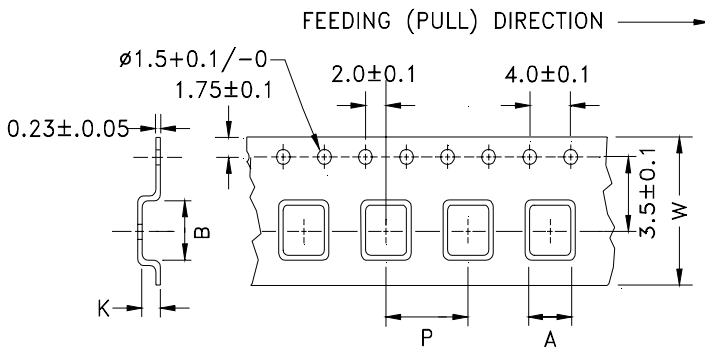


Recommended Land Pattern



Series	A	B	C	D	a(ref)	b(ref)	c(ref)
AISC-1210H	0.138 max (3.5 max)	0.098±0.008 (2.5 ±0.2)	0.098 max (2.5 max)	0.051±0.012 (1.3±0.3)	0.118 (3.0)	0.051 (1.3)	0.039 (1.0)

TAPE & REEL: T= tape and reel (1500pcs/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 ± 0.1	1500

Series	A	C	Z
AISC-1210H	178	8.0±0.5	60±0.5

Dimension : 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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