SMD Molded Wound Chip Inductor



AISM-1812 Series

Request Samples Check Inventory

4.8 x 3.5 x 3.5mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Low DCR
- Best suited for power supply lines

Applications

- VCRs & Video Cameras
- Automobile Audio Systems
- Computer products & Peripherals

Electrical Specifications

Part No. ASPI-1812-Inductance Code	L(µH)	Tolerance (%)	Q (min)	Test Freq. (MHz)	SRF(MHz) (min)	DCR(Ω) (max)	Idc(mA) (max)
AISM-1812-R10	0.10	M	35	25.2	300	0.20	800
AISM-1812-R12	0.12	M	35	25.2	280	0.20	770
AISM-1812-R15	0.15	M	35	25.2	250	0.20	730
AISM-1812-R18	0.18	M	35	25.2	220	0.24	700
AISM-1812-R22	0.22	M	40	25.2	200	0.30	665
AISM-1812-R27	0.27	M	40	25.2	180	0.30	635
AISM-1812-R33	0.33	M	40	25.2	165	0.30	605
AISM-1812-R39	0.39	M	40	25.2	150	0.30	575
AISM-1812-R47	0.47	M	40	25.2	145	0.32	545
AISM-1812-R56	0.56	M	40	25.2	140	0.40	520
AISM-1812-R68	0.68	M	40	25.2	135	0.40	500
AISM-1812-R82	0.82	M	40	25.2	130	0.50	475
AISM-1812-1R0	1.0	K	50	7.96	100	0.50	450
AISM-1812-1R2	1.2	K	50	7.96	80	0.60	430
AISM-1812-1R5	1.5	K	50	7.96	70	0.60	410
AISM-1812-1R8	1.8	K	50	7.96	60	0.70	390
AISM-1812-2R2	2.2	K	50	7.96	55	0.70	380
AISM-1812-2R7	2.7	K	50	7.96	50	0.80	370
AISM-1812-3R3	3.3	K	50	7.96	45	0.80	355
AISM-1812-3R9	3.9	K	50	7.96	40	0.90	330
AISM-1812-4R7	4.7	K	50	7.96	35	1.0	315
AISM-1812-5R6	5.6	K	50	7.96	33	1.1	300
AISM-1812-6R8	6.8	K	50	7.96	27	1.2	285
AISM-1812-8R2	8.2	K	50	7.96	25	1.4	270
AISM-1812-100	10	K	50	2.52	20	1.6	250
AISM-1812-120	12	K	50	2.52	18	2.0	225
AISM-1812-150	15	K	50	2.52	17	2.5	200
AISM-1812-180	18	K	50	2.52	15	2.8	190
AISM-1812-220	22	K	50	2.52	13	3.2	180
AISM-1812-270	27	K	50	2.52	12	3.6	170
AISM-1812-330	33	K	50	2.52	11	4.0	160
AISM-1812-390	39	K	50	2.52	10	4.5	150
AISM-1812-470	47	K	50	2.52	10	5.0	140
AISM-1812-560	56	K	50	2.52	9.0	5.5	135

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Phone: 512-371-6159 Fax: 512-351-8858
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Electrical Specifications (Cont'd)

Part No. ASPI-1812-Inductance Code	L(µH)	Tolerance (%)	Q (min)	Test Freq. (MHz)	SRF(MHz) (min)	DCR(Ω) (max)	Idc(mA) (max)
AISM-1812-680	68	K	50	2.52	9.0	6.0	130
AISM-1812-820	82	K	50	2.52	8.0	7.0	120
AISM-1812-101	100	K	40	0.796	8.0	8.0	110
AISM-1812-121	120	K	40	0.796	6.0	8.0	110
AISM-1812-151	150	K	40	0.796	5.0	9.0	105
AISM-1812-181	180	K	40	0.796	5.5	9.5	102
AISM-1812-221	220	K	40	0.796	5.0	10	100
AISM-1812-271	270	K	40	0.796	4.5	12	92
AISM-1812-331	330	K	40	0.796	4.0	14	85
AISM-1812-391	390	K	40	0.796	3.5	18	80
AISM-1812-471	470	K	40	0.796	3.5	26	62
AISM-1812-561	560	K	30	0.796	3.0	30	50
AISM-1812-681	680	K	30	0.796	3.0	30	50
AISM-1812-821	820	K	30	0.796	2.5	35	30
AISM-1812-102	1000	K	20	0.252	2.5	40	30

Test Conditions: Isat: ΔL/L (initial) ≥ -10%
Operating Temperature: -40˚C to +85˚C
Storage Temperature (in packaging): +22˚C to +28˚C, Humidity < 80%RH
AISM-1812 is RoHS Compliant and Pb Free.
MSL level: 1

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Part Identification

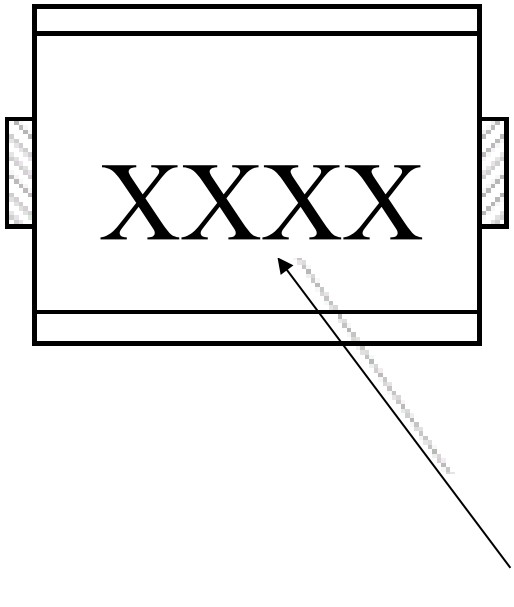
2.0 Part Number Identification

AISM-1812-□□-□

Inductance Code	Tolerance %	Packaging
Please refer to the table above	M: ± 20%*	T: Tape and Reel (500pcs / reel)
	K: ± 10%*	

*M for L = 0.1 ~ 0.82µH
*K for L = 1.0 ~ 1000µH

Marking



Marking Method = Ink Marking

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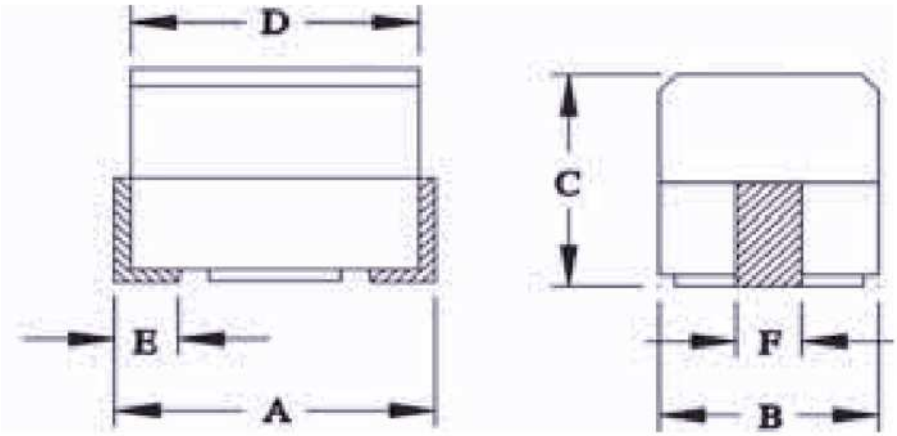


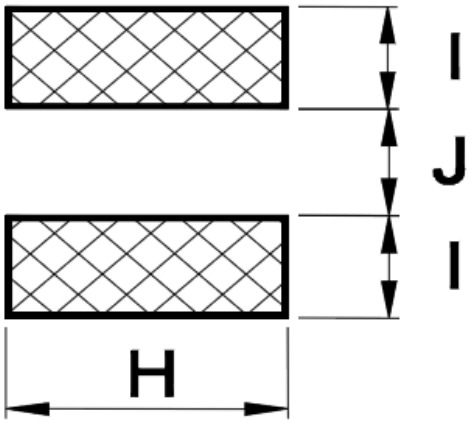
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Mechanical Specifications





Recommended Land Pattern

A max.	B max.	C max.	D ref.	E ref.	F ref.	I	J	H
4.8	3.5	3.5	4.2±0.2	1.1	1.2 or 1.8	1.50	3.00	2.80

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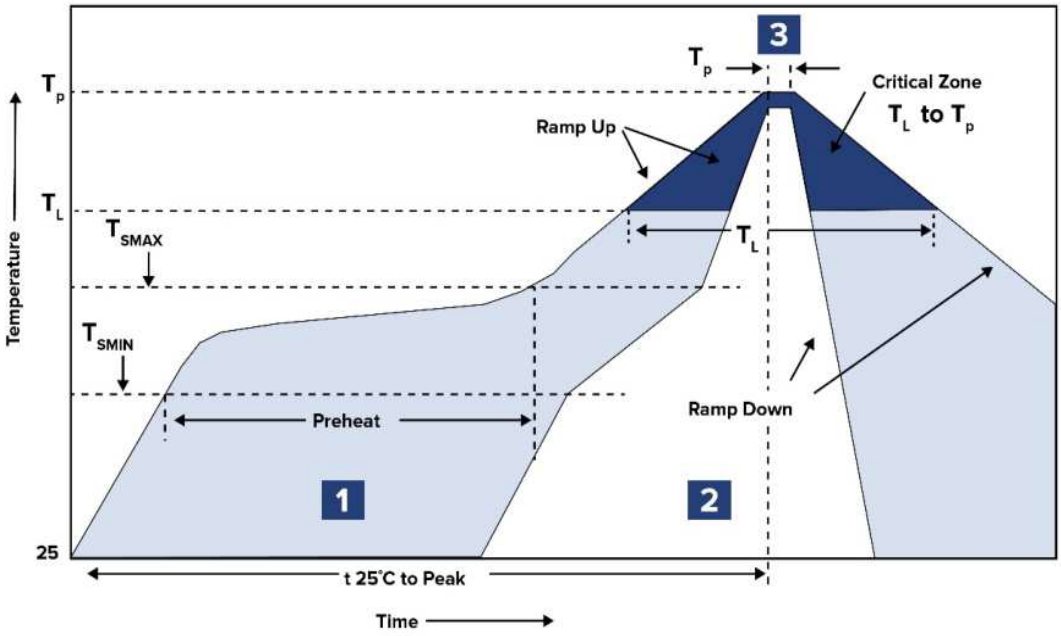


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 120°C ~ 180°C	50~ 150 sec.
2	Reflow	T_L 217°C	90 sec.
3	Peak heat	T_P 260°C (+0/-5°C)	10 ~30 sec. MAX

*Time from 25°C to peak should not exceed 6 min

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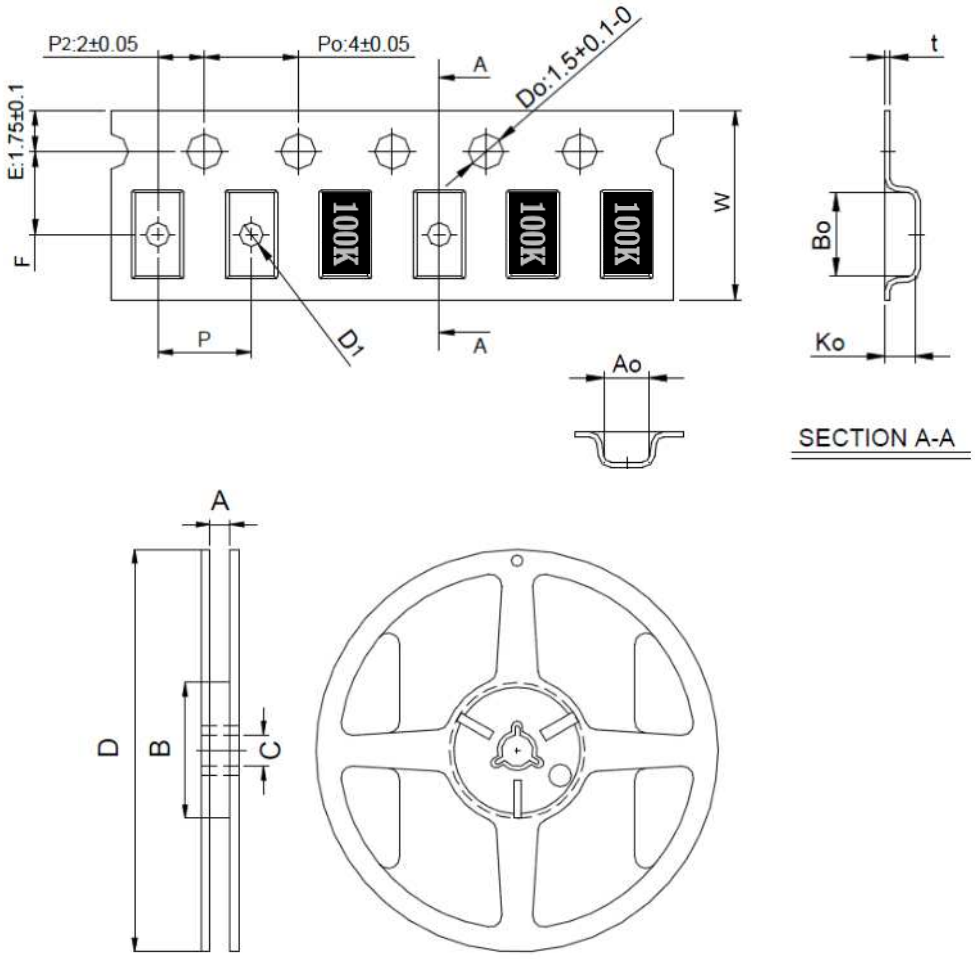
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MSL Level = 1

Packing

T: 500pcs / reel



A0	B0	K0	P	F	W	t	A	B	C	D
3.5 ± 0.1	4.9 ± 0.1	3.4 ± 0.1	8 ± 0.1	5.5 ± 0.1	12 ± 0.2	0.3 ± 0.05	13.5 ± 0.5	60 ± 2.0	13.5 ± 0.5	178 ± 2.0

Dimension: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

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