

Molding Type Power Inductor

ASPI-1040HI



RoHS
Compliant



11.5 x 10.0 x 4.0 mm

FEATURES:

- High saturation current.
- Low loss due to low DC resistance.
- Frequency application up to 3MHz.
- Low profile with max thickness 4.0mm.
- 100% lead free and metted RoHS standard.
- Suitable for reflow soldering.
- High reliable SMD package

APPLICATIONS:

- DC/DC converters in Notebook, Netbook, desktop and server
- Low profile, high current power supplies.

STANDARD SPECIFICATIONS

Abrakon P/N:	ASPI-1040HI Series
Operating Temperature & Humidity:	-55°C to +125°C (Including self generated heat)
Storage Temperature & Humidity:	<35°C, 35% to 65% RH

Part Number	Inductance	Tolerance	DCR Max	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	A	A
Symbol	L	M		Isat	Irms
ASPI-1040HI-R22	0.22	M	1.0	60	35
ASPI-1040HI-R30	0.3	M	1.1	45	35
ASPI-1040HI-R36	0.36	M	1.2	45	30
ASPI-1040HI-R47	0.47	M	1.7	40	30
ASPI-1040HI-R56	0.56	M	1.8	33	25
ASPI-1040HI-R68	0.68	M	2.4	30	23
ASPI-1040HI-R80	0.8	M	2.7	29	23
ASPI-1040HI-1R0	1	M	3.3	28	19
ASPI-1040HI-1R5	1.5	M	4.2	24	16
ASPI-1040HI-2R2	2.2	M	7.0	16.5	12
ASPI-1040HI-3R3	3.3	M	11.8	16	11
ASPI-1040HI-4R7	4.7	M	20	13	9
ASPI-1040HI-6R8	6.8	M	25	12	8.5
ASPI-1040HI-8R2	8.2	M	27	9	8
ASPI-1040HI-100	10	M	30	8.5	7.8
ASPI-1040HI-150	15	M	45	7	6.5
ASPI-1040HI-220	22	M	66	5.5	5
ASPI-1040HI-330	33	M	92	5	4.4
ASPI-1040HI-470	47	M	145	3.5	3.3
ASPI-1040HI-680	68	M	195	3	2.5

Test Conditions

100KHz, 1V

Isat: Based on inductance change ($\Delta L/L_o : \leq -30\%$)

Irms: Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)

Max Voltage: 30VDC



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PART NUMBER IDENTIFICATION

ASPI-1040HI- -

Inductance Code

Please refer to the
Electrical Spec Table

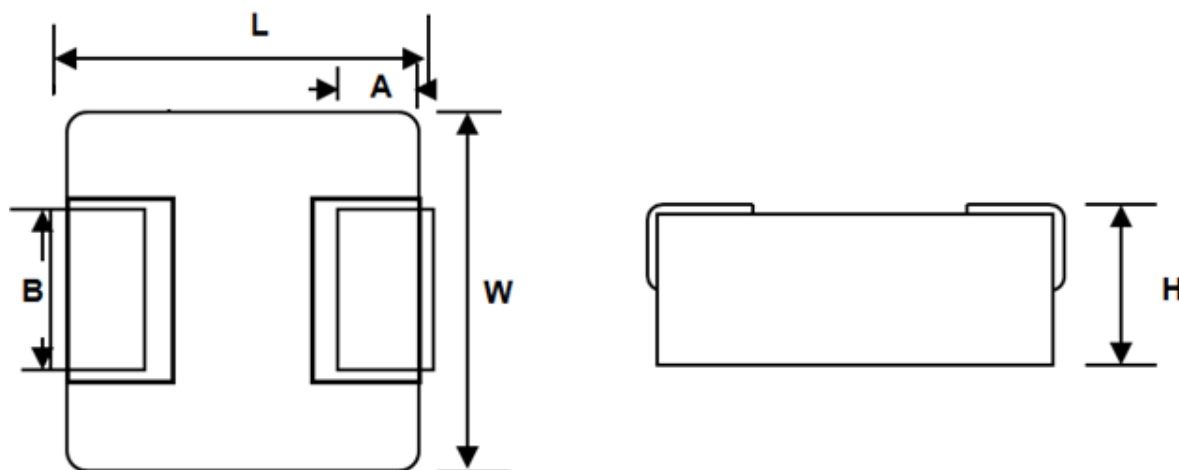
Tolerance

M: $\pm 20\%$

Packaging

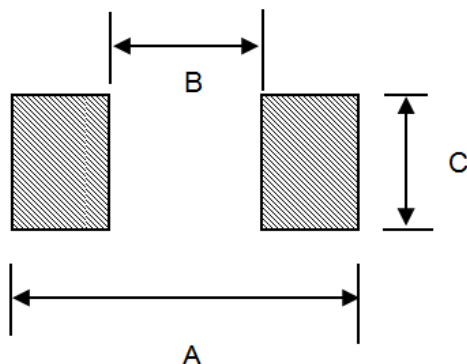
T05: Tape and Reel (500pcs /
reel)

OUTLINE DRAWING:



A	B	L	W	H
2.0 ± 0.5	3.0 ± 0.5	11.5 max	10 ± 0.3	4 max

Recommended Land Pattern



A	B	C
13.6	5.4	4.1

Dimension: mm

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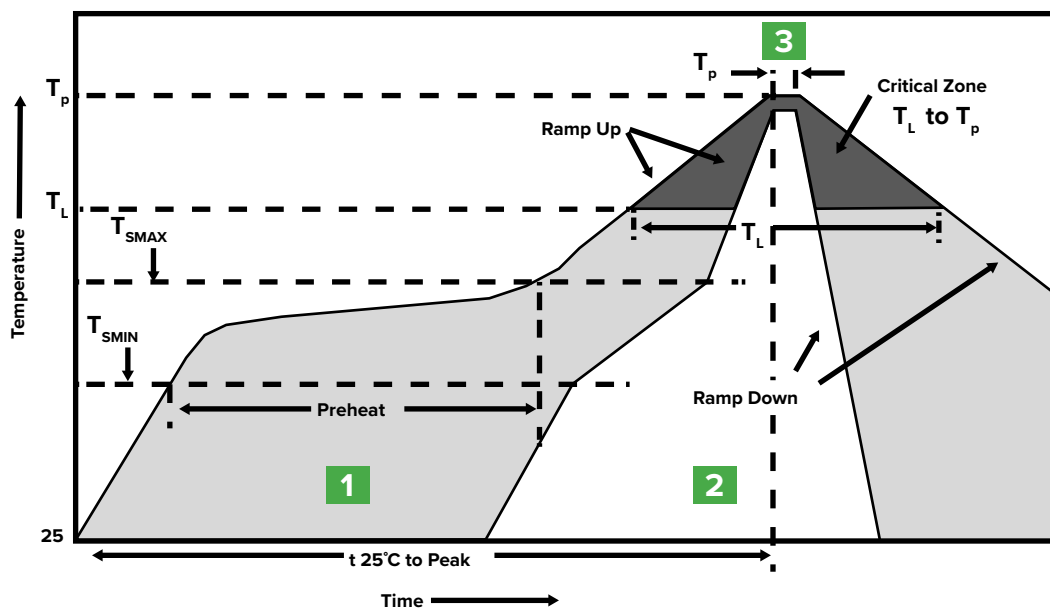


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REFLOW PROFILE



Zone	Description	Temperature	Time
1	Preheat	$T_{S\text{MIN}} \sim T_{S\text{MAX}}$ $150^{\circ}\text{C} \sim 180^{\circ}\text{C}$	60 ~ 120 sec.
2	Reflow	T_L 230°C	40 sec.
3	Peak heat	T_P $250^{\circ}\text{C} \pm 5^{\circ}\text{C}$	10 sec. MAX

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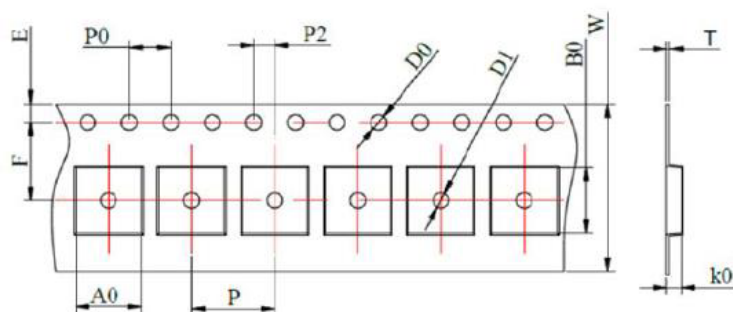
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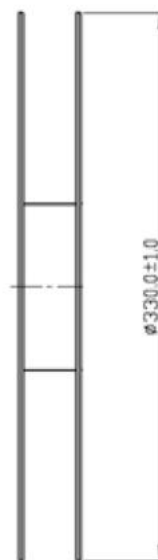
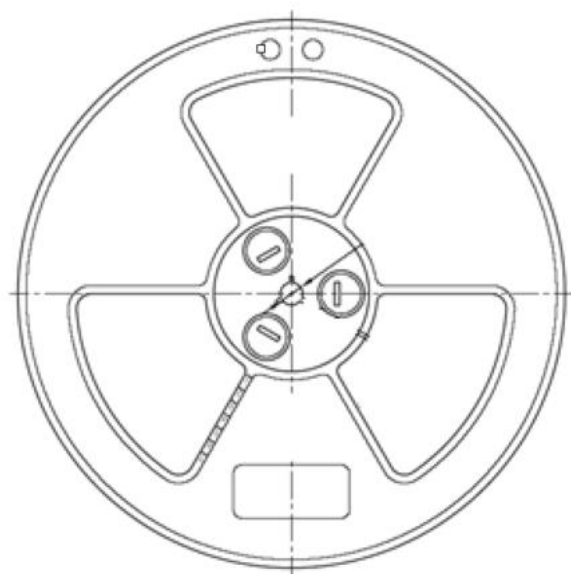
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TAPE & REEL:

T05: 500 pcs/reel
Carton: 4000 pcs/carton



W	24 ± 0.3
P	16 ± 0.1
P0	4 ± 0.1
P2	2 ± 0.05
D0	1.5 ± 0.1
D1	1.5 ± 0.1
T	0.35 ± 0.05
A0	10.4 ± 0.1
B0	11.5 ± 0.1
K0	4.3 ± 0.1
E	1.75 ± 0.1
F	11.5 ± 0.1



Dimension: mm

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