

LOW PROFILE SHIELDED SMD POWER INDUCTORS

ASPI-104S



RoHS
Compliant



10.3 x 10.4 x 4.0 mm

FEATURES:

- Superior to be high saturation for high density surface mounting
- High energy storage and Low resistance to keep power loss minimum
- Magnetically shielded with ferrite core for low radiation
- Suitable for RoHS compliant reflow

APPLICATIONS:

- Desktop, notebook, servers
- Network hubs, bridges, routers
- XDSL, PBX base stations
- Power source circuits, DC/DC converters, DC/AC inverters
- Digital TV, DVD, Modem, setup box
- Battery charger

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	ASPI-104S xxx Series
Operating temperature:	-40°C to +125°C
Storage temperature:	+15°C to +28°C (while in packaging)
Storage temperature:	-40°C to +125°C (outside of packaging)

PART NUMBER	INDUCTANCE (uH)	Tolerance	R _{DC} (mΩ) max	I _{DC} (A) max
ASPI-104S-R56	0.56	N	8	10.00
ASPI-104S-1R0	1.0	N	8	10.00
ASPI-104S-1R2	1.2	N	8	10.00
ASPI-104S-1R3	1.3	N	8	10.00
ASPI-104S-1R5	1.5	N	8	10.00
ASPI-104S-1R8	1.8	N	10	9.50
ASPI-104S-2R2	2.2	N	11	8.00
ASPI-104S-2R5	2.5	N	12	7.50
ASPI-104S-2R7	2.7	N	12	7.50
ASPI-104S-3R3	3.3	N	13	6.50
ASPI-104S-3R8	3.8	N	17	6.00
ASPI-104S-4R7	4.7	N	21	5.70
ASPI-104S-5R0	5.0	N	22	5.60
ASPI-104S-5R2	5.2	N	22	5.50
ASPI-104S-5R6	5.6	M, N	25	5.20
ASPI-104S-6R8	6.8	M, N	26	4.90
ASPI-104S-7R0	7.0	M, N	27	4.80
ASPI-104S-8R2	8.2	M, N	33	4.60
ASPI-104S-100	10	M, N	35	4.40
ASPI-104S-120	12	M, N	46	3.92
ASPI-104S-150	15	M, N	50	3.60
ASPI-104S-180	18	M, N	70	3.00
ASPI-104S-220	22	M, N	73	2.90
ASPI-104S-270	27	M, N	83	2.80
ASPI-104S-330	33	M, N	93	2.30
ASPI-104S-390	39	M, N	120	2.20
ASPI-104S-470	47	M, N	128	2.10
ASPI-104S-560	56	M, N	171	1.80

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STANDARD SPECIFICATIONS CONT:

PART NUMBER	INDUCTANCE (uH)	Tolerance	R _{DC} (mΩ) max	I _{DC} (A) max
ASPI-104S-680	68	M, N	213	1.50
ASPI-104S-820	82	M, N	250	1.40
ASPI-104S-101	100	M, N	304	1.35
ASPI-104S-121	120	M, N	400	1.20
ASPI-104S-151	150	M, N	506	1.15
ASPI-104S-181	180	M, N	631	1.03
ASPI-104S-221	220	M, N	756	0.92
ASPI-104S-271	270	M, N	853	0.84
ASPI-104S-331	330	M, N	1090	0.70
ASPI-104S-391	390	M, N	1450	0.62
ASPI-104S-471	470	M, N	1520	0.54
ASPI-104S-561	560	M, N	2500	0.50
ASPI-104S-681	680	M, N	2800	0.45
ASPI-104S-821	820	M, N	3000	0.40
ASPI-104S-102	1000	M, N	3250	0.32

Test Conditions

Inductance: 100kHz

I_{DC}: The current when the inductance becomes 35% lower than its initial value or the actual current when the temperature of coil increases to $\Delta T=40^{\circ}\text{C}$. The smaller one is defined as Rated DC Current. ($T_a=25^{\circ}\text{C}$)

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASPI-104S - -

Inductance Code
Please refer to the table above

Tolerance %
M: $\pm 20\%$
N: $\pm 30\%$

Packaging
T: Tape and Reel (750pcs / reel)

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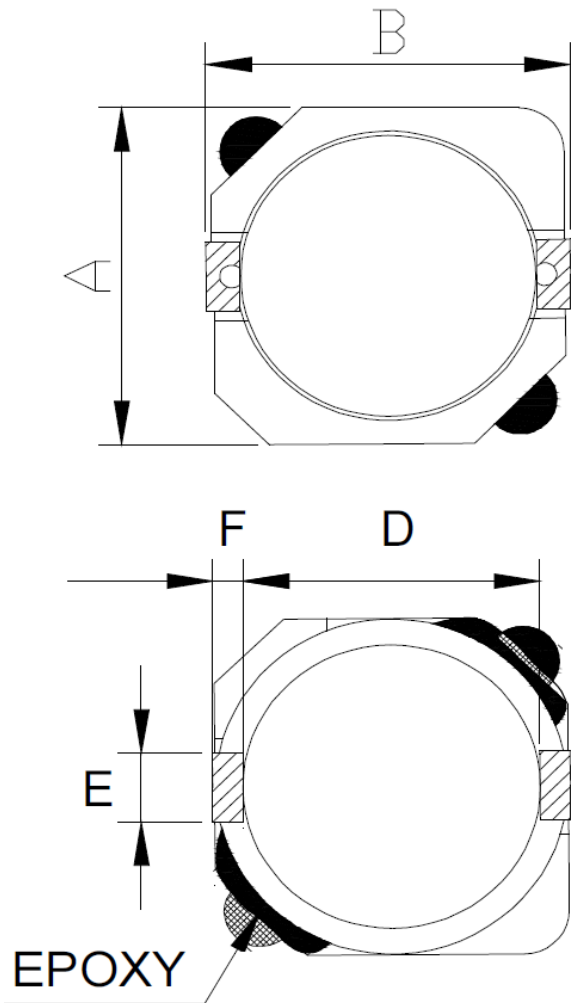


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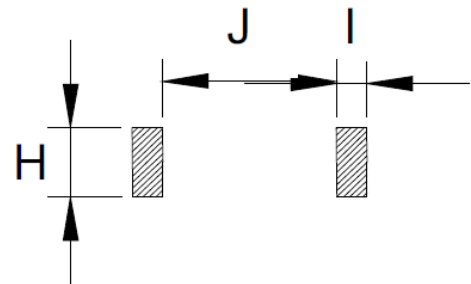


10.3 x 10.4 x 4.0 mm

OUTLINE DIMENSIONS:



Recommended Land Pattern



A Max.	B Max.	C Max.	D	E	F	H	I	J
10.3	10.4	4.0	7.7	3.0	1.2	3.2	1.6	7.3

Dimension: mm

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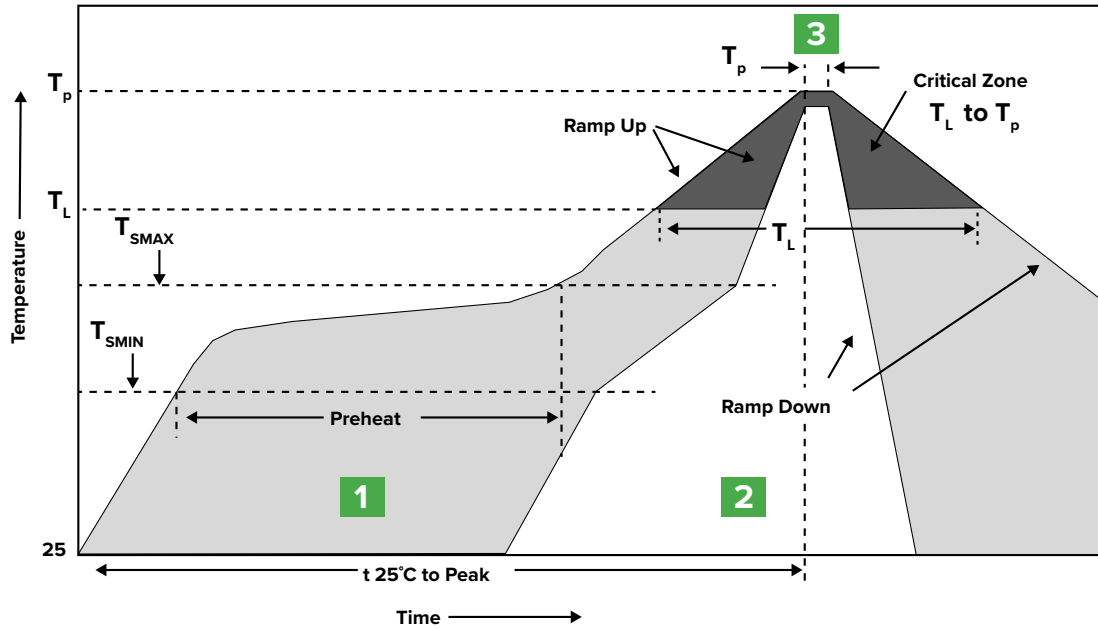


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REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	90 ~ 120 sec.
2	Reflow	T_L 200°C	60 sec. MAX
3	Peak heat	T_P 260°C±5°C	10 sec. MAX

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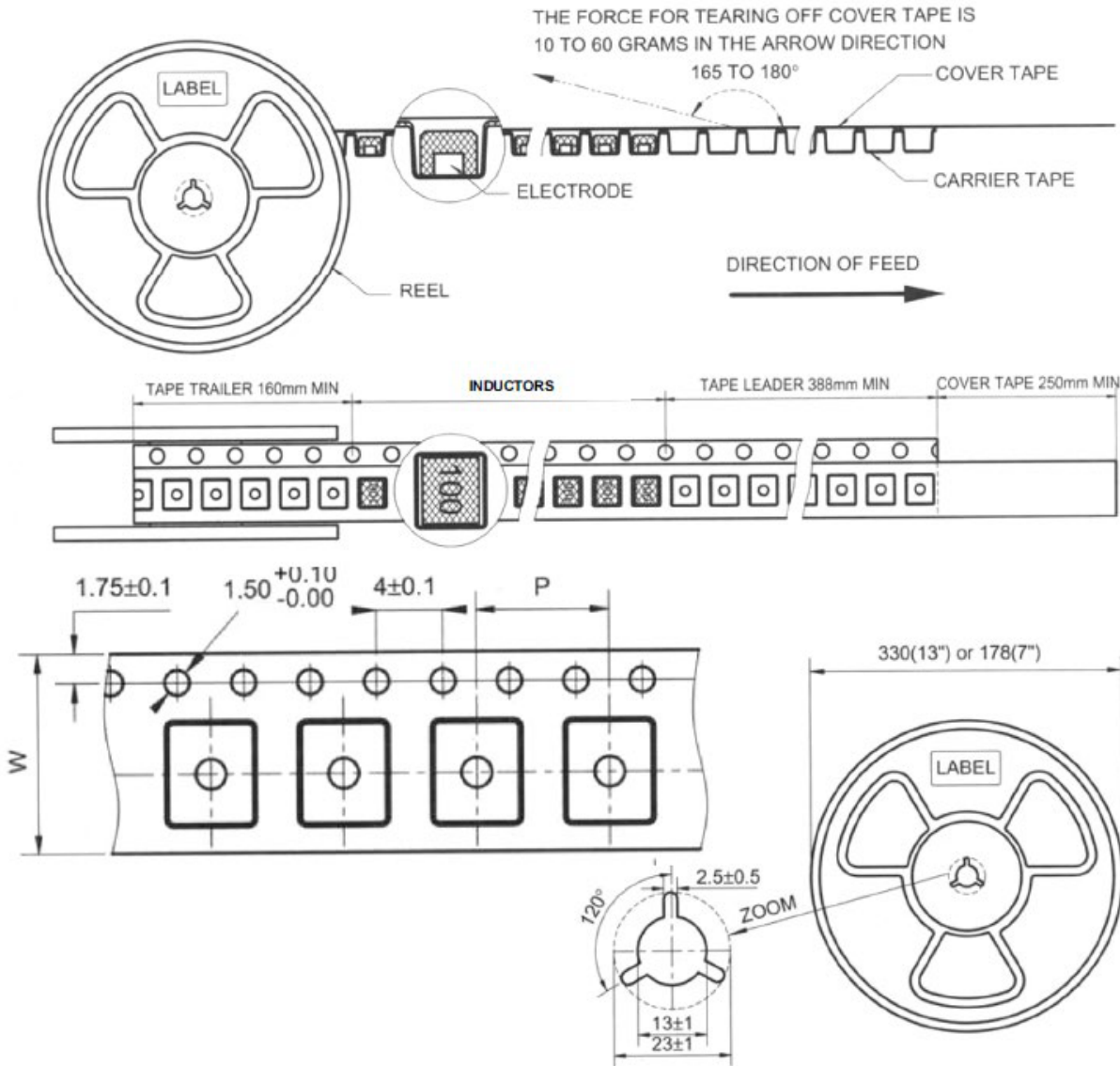
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PACKAGING:

T: 750 pcs / reel



Tape Size		Parts Per Reel
W	P	13"
24	16	750 pcs

Dimension: mm

ATTENTION: Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.