

# LOW PROFILE SHIELDED SMD POWER INDUCTORS

ASPI-104S



RoHS  
Compliant



10.0 x 10.1 x 3.8mm

## 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 +85°C
Storage temperature:	-5°C to +40°C

PART NUMBER	INDUCTANCE (uH) ±20%	Tolerance (%)	R <sub>DC</sub> (Ω) max	I <sub>sat</sub> (A) max	I <sub>rms</sub> (A) max
ASPI-104S-7R0	7	M	0.0270	4.80	4.80
ASPI-104S-100	10	M	0.0350	4.40	3.80
ASPI-104S-150	15	M	0.0500	3.60	3.10
ASPI-104S-180	18	M	0.0656	2.70	3.20
ASPI-104S-220	22	M	0.0730	2.90	2.50
ASPI-104S-270	27	M	0.0930	2.30	2.30
ASPI-104S-330	33	M	0.0930	2.30	2.20
ASPI-104S-470	47	M	0.1356	2.10	1.90
ASPI-104S-680	68	M	0.2130	1.50	1.42
ASPI-104S-101	100	M	0.3040	1.35	1.25
ASPI-104S-121	120	M	0.3500	1.20	1.08
ASPI-104S-151	150	M	0.5060	1.15	0.82
ASPI-104S-181	180	M	0.6630	1.05	0.70
ASPI-104S-221	220	M	0.7560	0.92	0.70
ASPI-104S-331	330	M	1.0900	0.70	0.52
ASPI-104S-471	470	M	1.6100	0.60	0.50

### Test Conditions

Inductance: 100kHz

I<sub>sat</sub>: ΔL/L (initial) ≥ -35%; I<sub>rms</sub>: ΔT ≤ 30°C

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASPI-104S -   -

**Inductance Code**  
Please refer to the table above

**Tolerance %**  
M: ± 20%

**Packaging**  
T: Tape and Reel (500pcs / reel)

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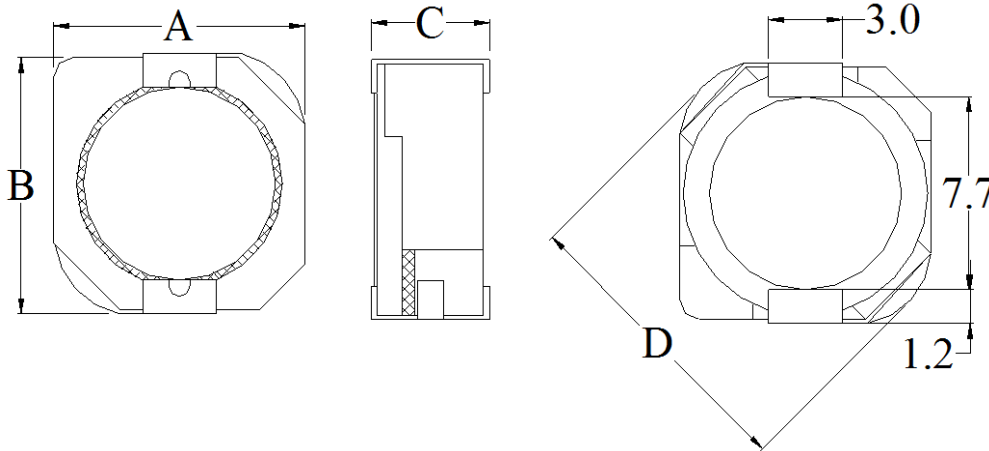


RoHS  
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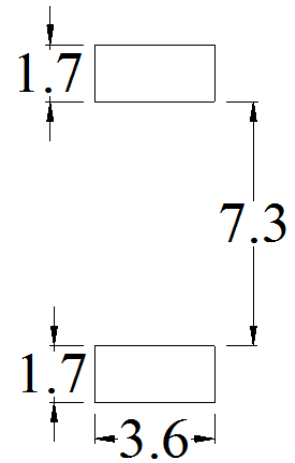
10.0 x 10.1 x 3.8mm

## OUTLINE DIMENSIONS:



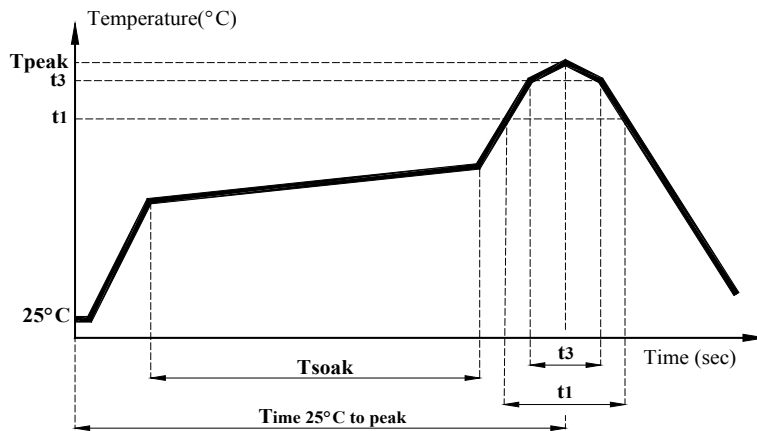
A	B	C	D
10.0 ± 0.3	10.1 ± 0.3	3.8 ± 0.2	13.5 Max.

## Recommended Land Pattern



Dimension: mm

## REFLOW PROFILE:



Item	mark	
Temperature rise gradient		3°C/sec (max)
Heating time	Tsoak	50s ~ 150s
Heating temperature		120°C~180°C
Time over 217°C	t1	70 sec
Time within 5°C of actual peak temperature	t3	10~30 sec
Peak temperature	Tpeak	250 ( +0 / -5 °C )
Time 25°C to peak Temperature		6 minutes max.

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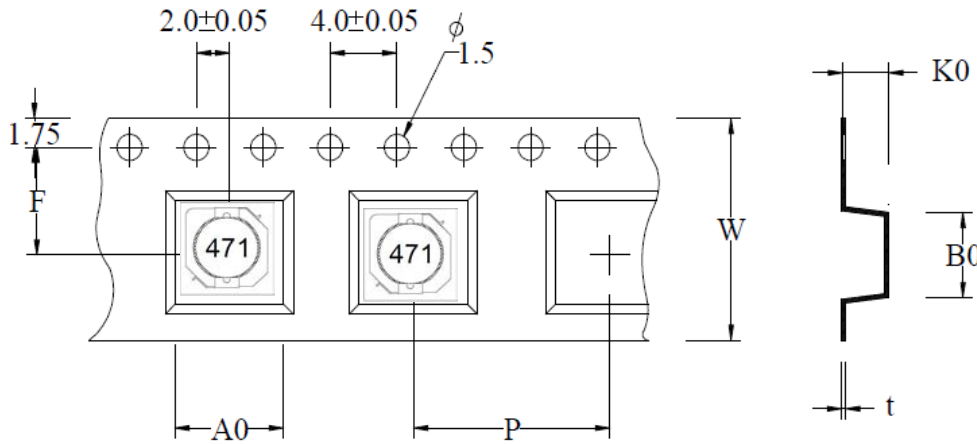
RoHS  
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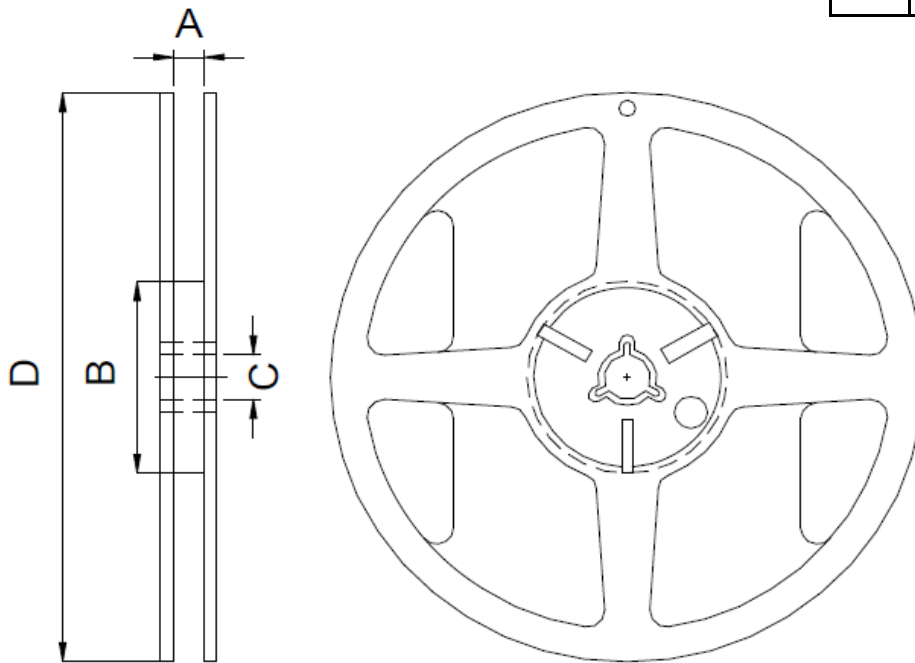
10.0 x 10.1 x 3.8mm

## REFLOW PROFILE:

T: 500pcs / reel



<b>A0</b>	10.5 ± 0.1
<b>B0</b>	10.5 ± 0.1
<b>K0</b>	4.5 ± 0.1
<b>P</b>	16 ± 0.1
<b>F</b>	11.5 ± 0.1
<b>W</b>	24 ± 0.3
<b>t</b>	0.35 ± 0.05
<b>A</b>	24.5 ± 0.2
<b>B</b>	100 ± 0.5
<b>C</b>	13.2 ± 0.3
<b>D</b>	330 ± 1.0



Dimension: mm

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