

# SMD SHIELDED POWER INDUCTOR



3.8 x 3.8 x 1.8mm

**ASPI - 0315S**



**RoHS  
Compliant**

## FEATURES:

- Compact size and very thin: 3.8X3.8X1.8mm
- Magnetically shielded, surface mount inductor
- Large DC current & low DC resistance
- Mighty temperature deflection prevents damage during solder reflow

## APPLICATIONS:

- PDA's flash memory
- Step-up, step-down converters
- Communication systems, XDSL, PBX base stations
- Power source circuits, DC/DC converters, DC/AC inverters
- Hard disk, notebook computer

## ELECTRICAL SPECIFICATIONS:

ABRACON P/N:	ASPI-0315 S-xxx
Operating Temperature:	-40°C to +85°C
Storage Temperature:	-55°C to +125°C

### Electrical Characteristics

Part Number	L (μH) ±20%	R <sub>DC</sub> (W) Max	I <sub>DC</sub> (A) Max
ASPI-0315S-3R3	3.3	0.085	1.10
ASPI-0315S-3R9	3.9	0.081	0.75
ASPI-0315S-4R7	4.7	0.105	0.90
ASPI-0315S-5R6	5.6	0.102	0.62
ASPI-0315S-6R8	6.8	0.170	0.73
ASPI-0315S-8R2	8.2	0.140	0.51
ASPI-0315S-100	10	0.210	0.55
ASPI-0315S-120	12.0	0.205	0.42
ASPI-0315S-150	15.0	0.295	0.45
ASPI-0315S-180	18	0.327	0.34
ASPI-0315S-220	22	0.430	0.40
ASPI-0315S-270	27	0.470	0.28
ASPI-0315S-330	33	0.675	0.32
ASPI-0315S-390	39	0.700	0.24
ASPI-0315S-470	47	0.775	0.21
ASPI-0315S-101	100	3.690	0.22
ASPI-0315S-151	150	3.500	0.11
ASPI-0315S-221	220	5.46	0.13
ASPI-0315S-331	330	9.45	0.32

### Testing Condition:

100kHz, 0.1V

IDC: Inductance decreases to 65% of initial value or ?T of coil increased by 30°C

### Test Equipment:

- 1) Test L: ZENTECH 3305 Automatic components Analyzer
- 2) Test RDC: HM 2541A Low-Ohm Auto Sorter
- 3) Test IDC: ZENTECH 3302 Automatic Components Analyzer + ZENTECH 1320 BIAS CURRENT.

## OPTIONS AND PART IDENTIFICATION:

ASPI-0315S - [ ] - [ ] - [ ]

**Inductance Code**  
Please refer to the table on page 2

**Tolerance %**  
M: ±20%

**Packaging**  
T: Tape and Reel



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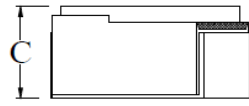
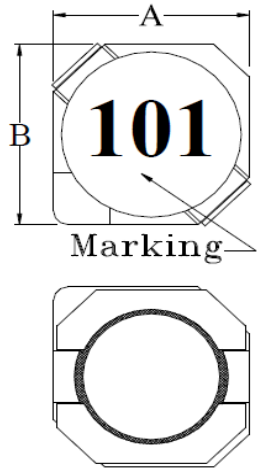
3.8 x 3.8 x 1.8mm

**ASPI - 0315S**

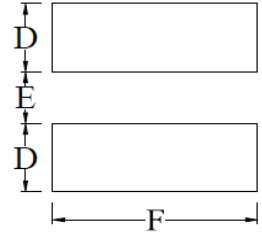


**RoHS**  
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## OUTLINE DRAWING:



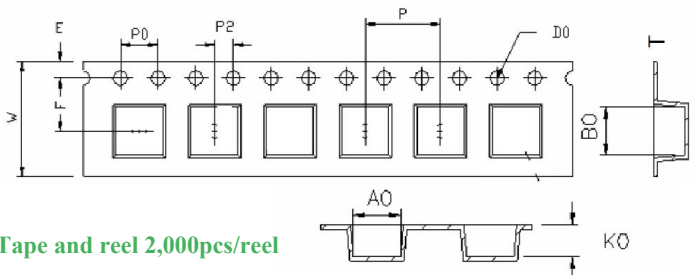
**LAND PATTERNS(mm)**



A	B	C(Max.)	D(Ref.)	E(Ref.)	F(Ref.)
3.8±0.3	3.8±0.3	1.8	1.6	1.2	4.5

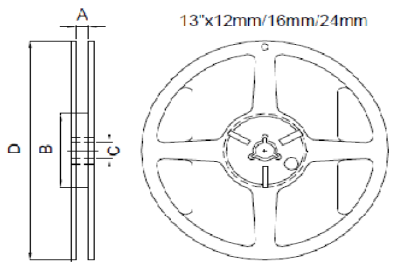
Dimensions: mm

## TAPE & REEL:



Tape and reel 2,000pcs/reel

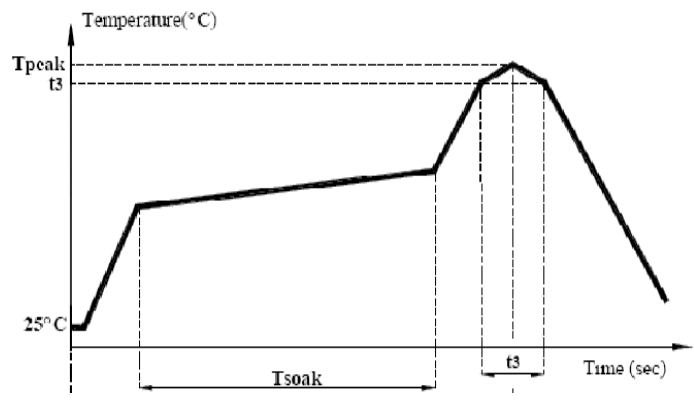
A0	B0	K0	F	E
4.3 ± 0.1	4.2 ± 0.1	2.0 ± 0.1	5.5 ± 0.1	1.75 ± 0.1
W	P	P0	P2	T
12 ± 0.3	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05



Dimensions: mm

A	B	C	D
12.5 ± 0.5	100 ± 0.5	13.2 ± 0.3	330 ± 1.0

## REFLOW PROFILE:



Item	Mark	Product
Temperature rise gradient		3°C/sec (max)
Heating time	Tsoak	50s ~ 150s
Heating temperature		120°C~180°C
Time over 217°C	t1	90 sec
Time within 5°C of actual peak temperature	t3	10~30 sec
Peak temperature	Tpeak	255 ~ 260 °C
Time 25°C to peak Temperature		6 minutes max.

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