

# ULTRA MINIATURE SHIELDED POWER INDUCTOR

ASPI-0412S



**RoHS**  
Compliant



4.2 x 4.2 x 1.2mm

## FEATURES:

- Small size and low profile: 1.2mm
- Small DCR and high rated current
- High reliability to mechanical stress
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

## APPLICATIONS:

- Mobile phones
- MP3 & 4 and other portable communication equipment
- Digital cameras.

## ELECTRICAL SPECIFICATIONS:

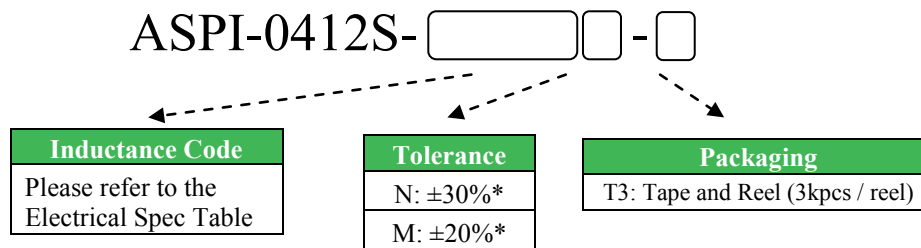
Abracon P/N:	ASPI-0412S
Operating Temperature & Humidity :	-25°C to +100°C (Including self generated heat)
Storage Temperature & Humidity:	-10°C to +40°C, 30% to 70% RH

Part Number	Inductance	Tolerance	DCR Max	DCR Typ	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	mΩ	A	A
Symbol	L	M, N			Isat*	Irms*
ASPI-0412S-1R2	1.2	N	71	57	2.00	1.88
ASPI-0412S-1R5	1.5	N	83	67	1.90	1.69
ASPI-0412S-2R2	2.2	N	105	84	1.60	1.43
ASPI-0412S-3R3	3.3	N	147	118	1.20	1.15
ASPI-0412S-4R7	4.7	N	212	170	1.10	0.93
ASPI-0412S-6R8	6.8	N	307	246	0.98	0.78
ASPI-0412S-8R2	8.2	N	340	272	0.88	0.74
ASPI-0412S-100	10	M	424	339	0.70	0.63
ASPI-0412S-120	12	M	483	386	0.65	0.59
ASPI-0412S-150	15	M	545	436	0.60	0.54
ASPI-0412S-180	18	M	730	585	0.55	0.48
ASPI-0412S-220	22	M	817	653	0.48	0.44
ASPI-0412S-330	27	M	989	791	0.45	0.39

### Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in HP-4338B milli ohm meter.(or equivalent).
3. Isat : Based on inductance change ( $\Delta L/L_0 : \leq -35\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$  )
5. Test Freq: 100KHz, 1Vrms

## OPTIONS AND PART IDENTIFICATION



\*N for L = 1.2~8.2μH

\*M for L = 10 ~ 27μH



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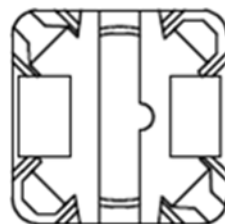
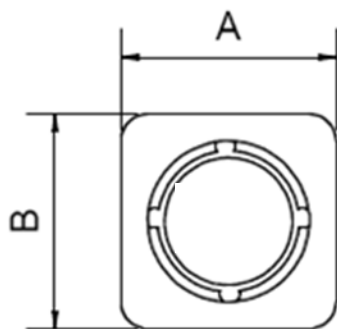
RoHS  
Compliant



4.2 x 4.2 x 1.2mm

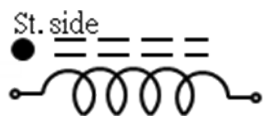
## OUTLINE DRAWING:

### Mechanical Dimensions

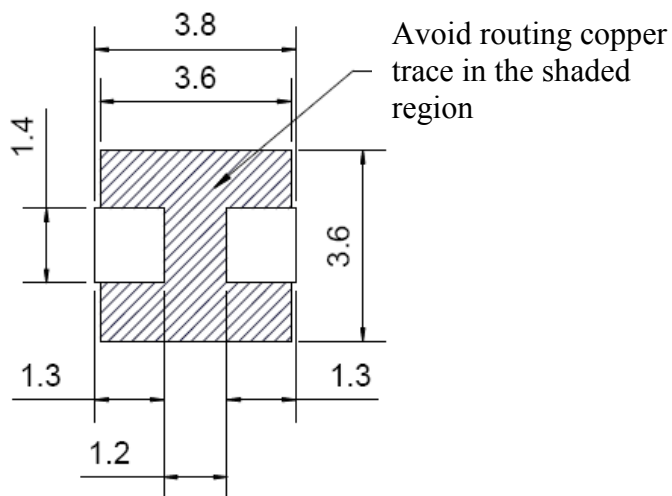


A	B	C Max.
4.2±0.1	4.2±0.1	1.2

### Circuit Schematic



### Recommended Land Pattern



Dimension: mm

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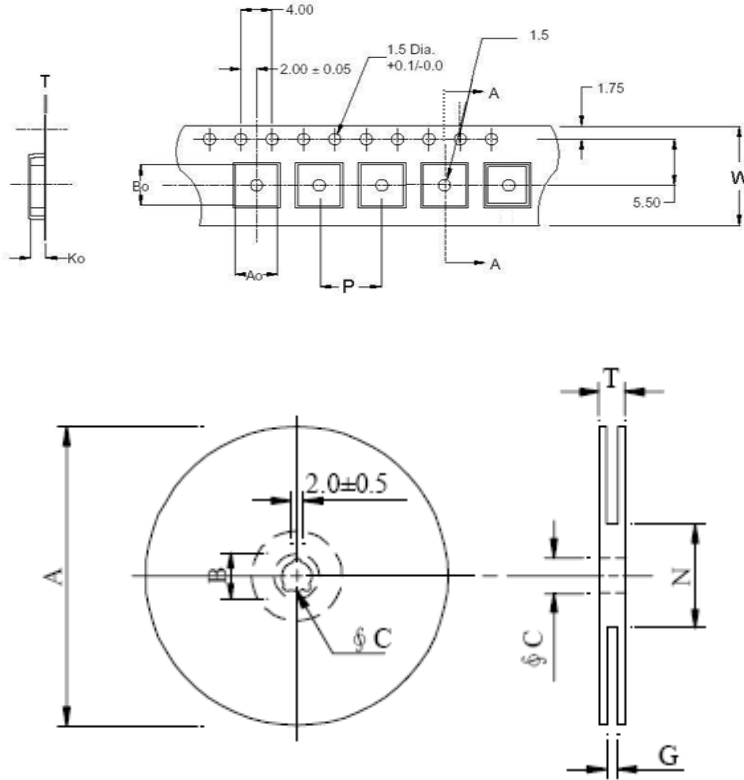
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4.2 x 4.2 x 1.2mm

## TAPE & REEL:

T3: 3,000pcs / reel

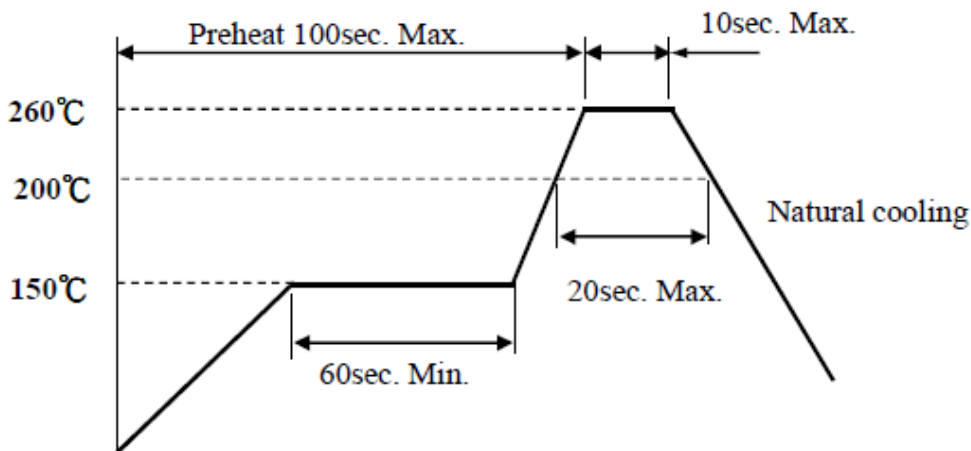


Ao	4.6
Bo	4.3
Ko	1.35
W	12
P	8
T	0.3

A	330
B	21.0±0.8
C	13.5±0.5
G	12.6
N	99.5
T	17.2

Dimension: mm

## REFLOW PROFILE:



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