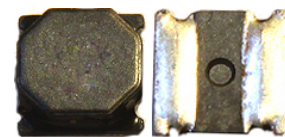


# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



4.0 x 4.0 x 1.2mm

ASPI-0412FS



**RoHS**  
Compliant

MSL level: 2 (This product is packed with dry packaging)

## FEATURES:

- Small size and low profile: 1.2mm max
- Small DCR and high rated current
- High reliability to mechanical strength
- Shielded by magnetic powder molding
- Suitable for RoHS compliant Reflow

## APPLICATIONS:

- Mobile phones
- MP3, MP4 and other portable / communication products
- Digital cameras.

## ELECTRICAL SPECIFICATIONS:

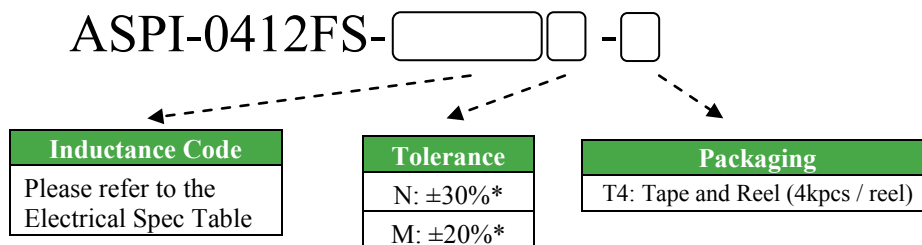
Abrakon P/N:	ASPI-0412FS Series
Operating Temperature & Humidity	-25°C to +120°C(Including self generated heat)
Storage Temperature & Humidity:	-10°C to +40°C, 30% to 70% RH

Part Number ASPI-0412FS- Inductance Code	Inductance	Inductance Tolerance	DCR	DCR Tolerance	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	%	A	A
Symbol	L	M, N	DCR		Isat	Irms
ASPI-0412FS-1R0	1.0	N	42	±30%	2.80	2.20
ASPI-0412FS-1R5	1.5	N	60		2.10	2.00
ASPI-0412FS-2R2	2.2	M	90		1.70	1.90
ASPI-0412FS-3R3	3.3	M	100	±20%	1.40	1.70
ASPI-0412FS-4R7	4.7	M	140		1.20	1.50
ASPI-0412FS-6R8	6.8	M	180		1.00	1.30
ASPI-0412FS-100	10	M	240		0.89	1.10
ASPI-0412FS-150	15	M	400		0.70	0.75
ASPI-0412FS-220	22	M	540		0.55	0.70
ASPI-0412FS-330	33	M	780		0.47	0.55
ASPI-0412FS-470	47	M	950		0.40	0.50

### Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in DU-5011 milli ohm meter.(or equivalent).
3. Isat : Based on inductance change ( $\Delta L/L_0 : \leq -30\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$ )
5. Test Freq: 100KHz, 1Vrms

## OPTIONS AND PART IDENTIFICATION

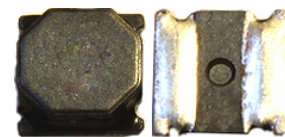


\*N for L = 1.0 ~ 1.5μH

\*M for L = 2.2 ~ 47μH



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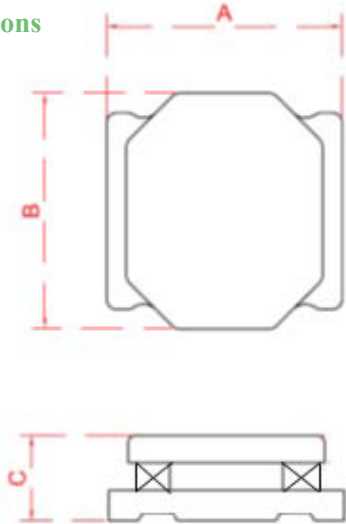
ASPI-0412FS



**RoHS**  
Compliant

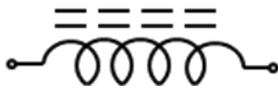
## OUTLINE DRAWING:

### Mechanical Dimensions



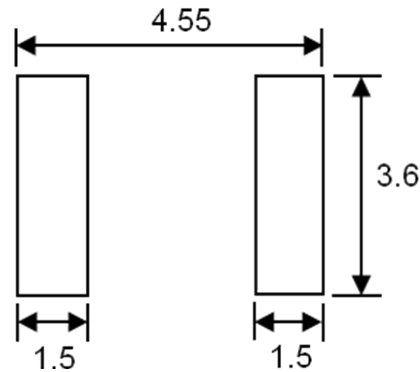
A	B	C Max.
4.0±0.2	4.0±0.2	1.2

### Circuit Schematic



No Polarity

### Recommended Land Pattern

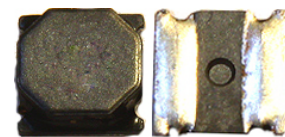


### Materials

No	Part Name	Material
1	Ferrite core	Ni-Zn Ferrite
2	Terminals	Ag/Ni/Sn
3	Coil	Cu/P180 Grd 1
4	Adhesive	Silicon Base Resin
	Magnetic Powder	Ni-Zn Ferrite

Dimension: mm

# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



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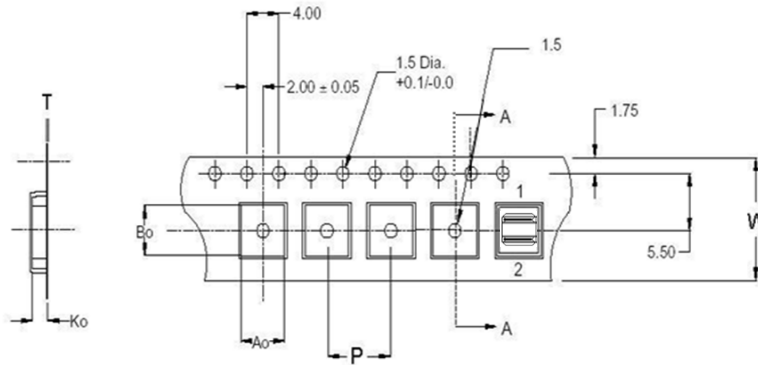
ASPI-0412FS



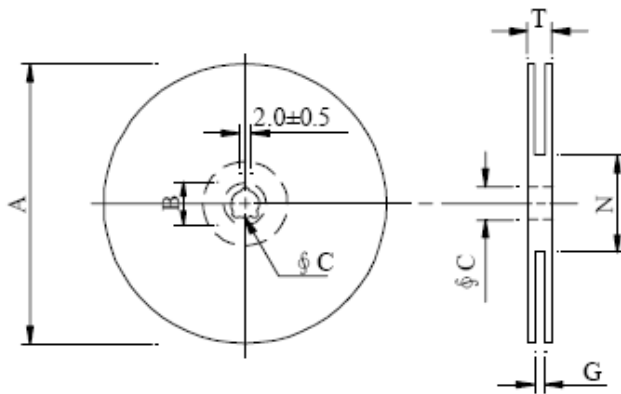
RoHS  
Compliant

## TAPE & REEL:

T4: 4,000pcs / reel



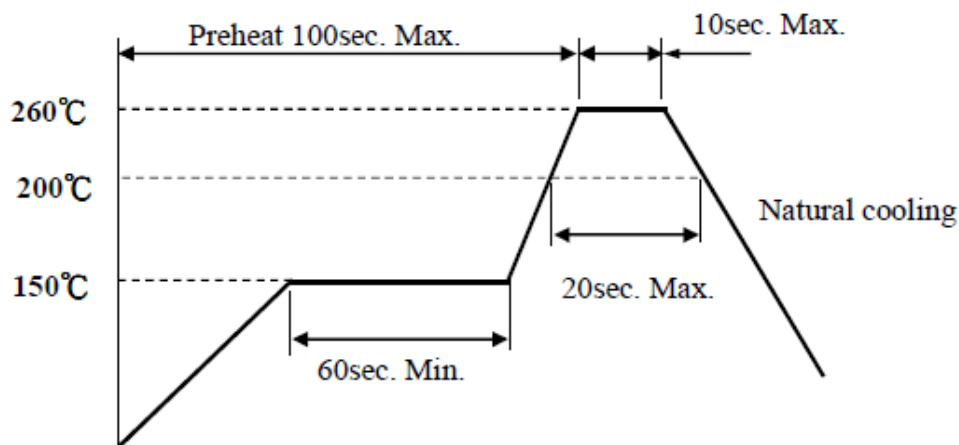
Ao	4.50
Bo	4.35
Ko	1.55
W	12
P	8
T	0.3



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:



**ATTENTION:** Abracon Corporation'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-dependant 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 Corporation is required. Please contact Abracon Corporation for more information.

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CERTIFIED



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