

# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



3.0 x 3.0 x 1.2mm

ASPI-0312FS



**RoHS**  
Compliant

## 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-0312FS 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	Inductance	Inductance Tolerance	DCR	DCR Tolerance	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	%	A	A
Symbol	L	M, N	DCR		Isat	Irms
ASPI-0312FS-1R0	1.0	N	50	±20%	1.50	1.49
ASPI-0312FS-1R5	1.5	N	60		1.36	1.40
ASPI-0312FS-2R2	2.2	M	70		1.10	1.20
ASPI-0312FS-2R7	2.7	M	90		1.00	1.00
ASPI-0312FS-3R3	3.3	M	100		0.91	1.05
ASPI-0312FS-4R7	4.7	M	130		0.77	0.98
ASPI-0312FS-6R8	6.8	M	190		0.67	0.74
ASPI-0312FS-100	10.0	M	290		0.54	0.63
ASPI-0312FS-150	15.0	M	450		0.44	0.48
ASPI-0312FS-220	22.0	M	630		0.37	0.42
ASPI-0312FS-330	33.0	M	1030		0.31	0.33
ASPI-0312FS-470	47.0	M	1450		0.25	0.28

## 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 ( $\Delta L/L_0 : \leq -30\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$ )
5. Test Freq: 100KHz, 1Vrms

## OPTIONS AND PART IDENTIFICATION

ASPI-0312FS--

**Inductance Code**  
Please refer to the Electrical Spec Table

**Tolerance**  
N: ±30%\*  
M: ±20%\*

**Packaging**  
T2: Tape and Reel (2kpcs / reel)

\*N for L = 1.0 and 1.5μH

\*M for L = 2.2 ~ 47μH



# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



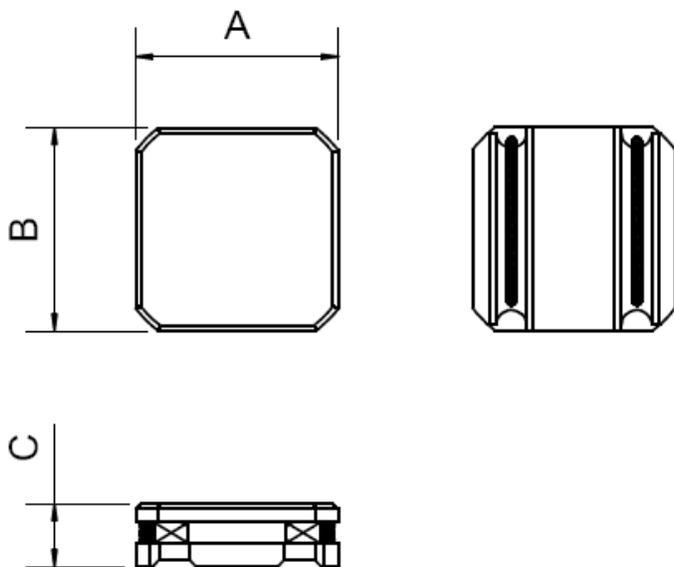
3.0 x 3.0 x 1.2mm

ASPI-0312FS



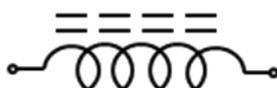
**RoHS**  
Compliant

## OUTLINE DRAWING:



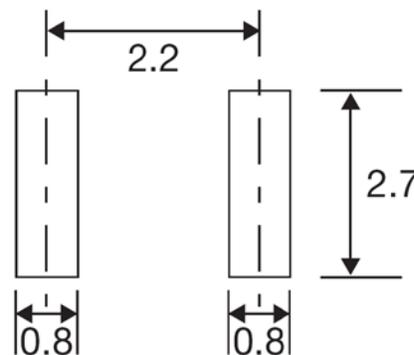
A	B	C Max.
3.0±0.1	3.0±0.1	1.2

### Circuit Schematic



No Polarity

### Recommended Land Pattern



Dimension: mm



# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



3.0 x 3.0 x 1.2mm

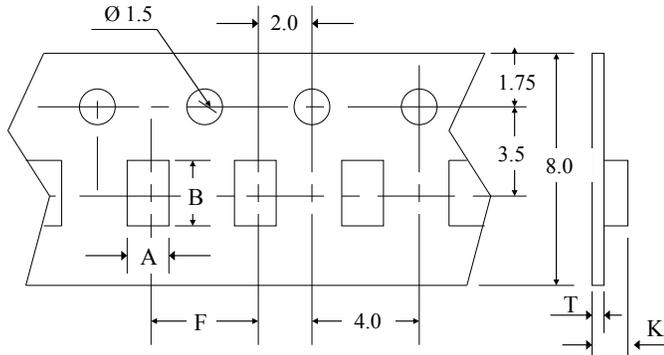
ASPI-0312FS



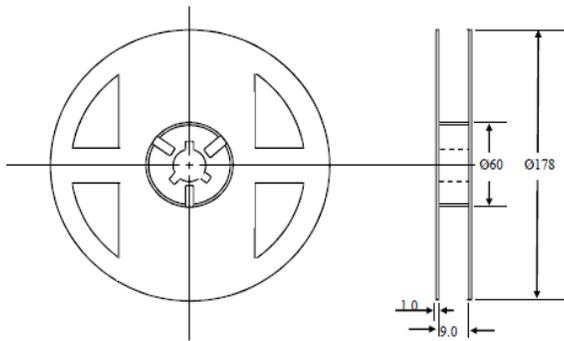
**RoHS**  
Compliant

## TAPE & REEL:

T2: 2,000pcs / reel

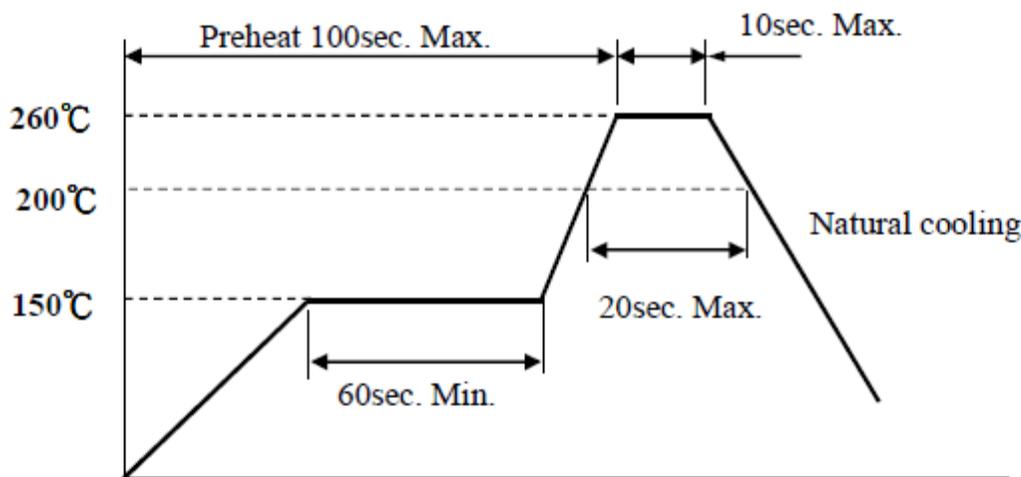


A	3.15
B	3.15
K	1.40
F	4
T	0.25



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.

ABRACON IS  
ISO9001:2008  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 11.22.11**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## ABRACON:

[ASPI-0310FS-100M-T4](#) [ASPI-0310FS-150M-T4](#) [ASPI-0310FS-1R0N-T4](#) [ASPI-0310FS-220M-T4](#) [ASPI-0310FS-2R2M-T4](#) [ASPI-0310FS-330M-T4](#) [ASPI-0310FS-3R3M-T4](#) [ASPI-0310FS-470M-T4](#) [ASPI-0310FS-4R7M-T4](#) [ASPI-0310FS-6R8M-T4](#) [ASPI-0312FS-100M-T4](#) [ASPI-0312FS-220M-T4](#) [ASPI-0312FS-2R2M-T4](#) [ASPI-0312FS-3R3M-T4](#) [ASPI-0312FS-4R7M-T4](#) [ASPI-0312FS-6R8M-T4](#) [ASPI-0312FS-KIT](#) [ASPI-0312FS-100M-T2](#) [ASPI-0312FS-220M-T2](#) [ASPI-0312FS-2R2M-T2](#) [ASPI-0312FS-3R3M-T2](#) [ASPI-0312FS-4R7M-T2](#) [ASPI-0312FS-6R8M-T2](#) [ASPI-0310FS-150M-T2](#) [ASPI-0310FS-220M-T2](#) [ASPI-0310FS-2R2M-T2](#) [ASPI-0310FS-330M-T2](#) [ASPI-0310FS-3R3M-T2](#) [ASPI-0310FS-470M-T2](#) [ASPI-0310FS-4R7M-T2](#) [ASPI-0310FS-6R8M-T2](#)