

# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



3.0 x 3.0 x 1.2mm

ASPI-0312FSSA



**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-0312FSSA Series
Operating Temperature & Humidity:	-30°C to +100°C, 5% to 85% RH. Please avoid moisture due to the humidity.
Storage Temperature & Humidity:	-20°C to +60°C, 5% to 85% RH. Please avoid moisture due to the humidity.

Part Number	Inductance	DCR	Saturation Current	Temperature Rise Current	Marking
Units	$\mu\text{H}\pm 20\%$	$\text{m}\Omega\pm 20\%$	A	A	—
Symbol	L	DCR	$I_{\text{sat}}^*$	$I_{\text{rms}}^*$	—
ASPI-0312FSSA-2R0M	2.0	69	1.55	1.35	2R0
ASPI-0312FSSA-3R3M	3.3	100	1.20	1.10	3R3
ASPI-0312FSSA-4R7M	4.7	130	1.00	1.00	4R7
ASPI-0312FSSA-6R8M	6.8	210	0.84	0.80	6R8
ASPI-0312FSSA-100M	10.0	290	0.73	0.70	100
ASPI-0312FSSA-220M	22.0	700	0.43	0.40	220

\*The rated current is subject to change depending upon the temperature cooling condition.

### Test Conditions

Inductance: 100kHz, 0.3V,  $T_a=20^\circ\text{C}$   
 DCR:  $T_a=20^\circ\text{C}$   
 $I_{\text{sat}}$ :  $\Delta L/L$  (initial)  $\geq -30\%$   
 $I_{\text{rms}}$ :  $\Delta T \leq 40^\circ\text{C}$

## OPTIONS AND PART IDENTIFICATION

ASPI-0312FSSA -  -

### Inductance Code

Please refer to the table above

### Packaging

T: Tape and Reel  
(1kpcs / reel)  
 T4: Tape and Reel  
(4kpcs / reel)



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3.0 x 3.0 x 1.2mm

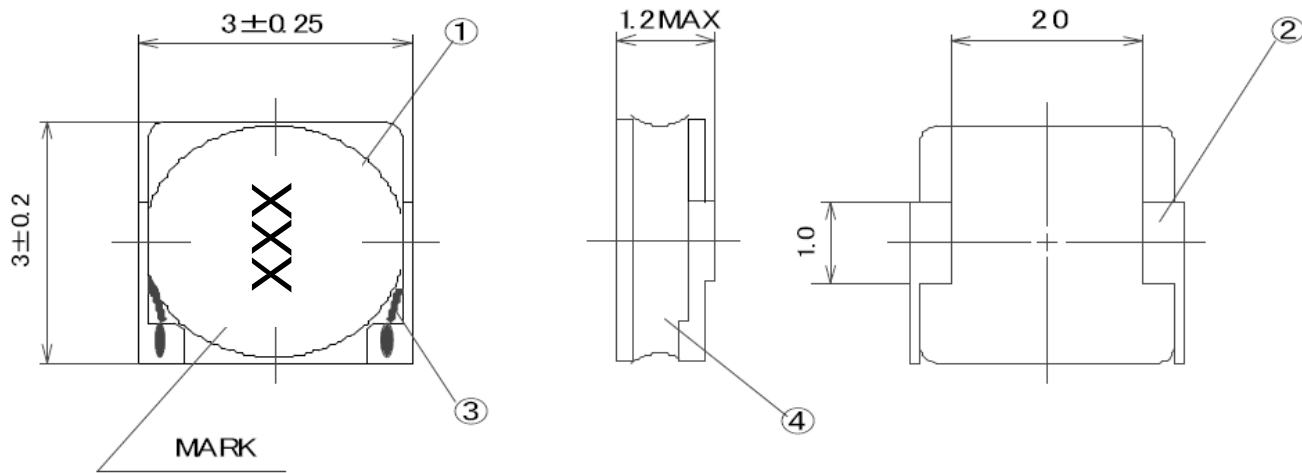
ASPI-0312FSSA



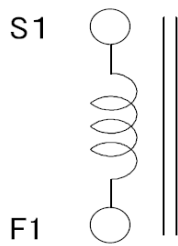
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## OUTLINE DRAWING:

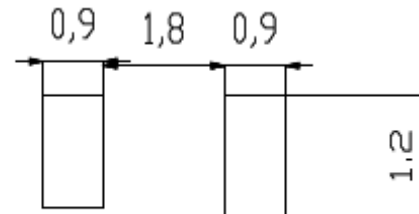
### Mechanical Dimensions



### Circuit Schematic



### Recommended Land Pattern



No	Part Name	Material
1	Drum core	Ni-Zn Ferrite
2	Terminals	Copper alloy, Sn
3	Coil	Cu/UEW
4	Adhesive	Epoxy base resin
	Magnetic powder	Ni-Zn Ferrite

Dimension: mm

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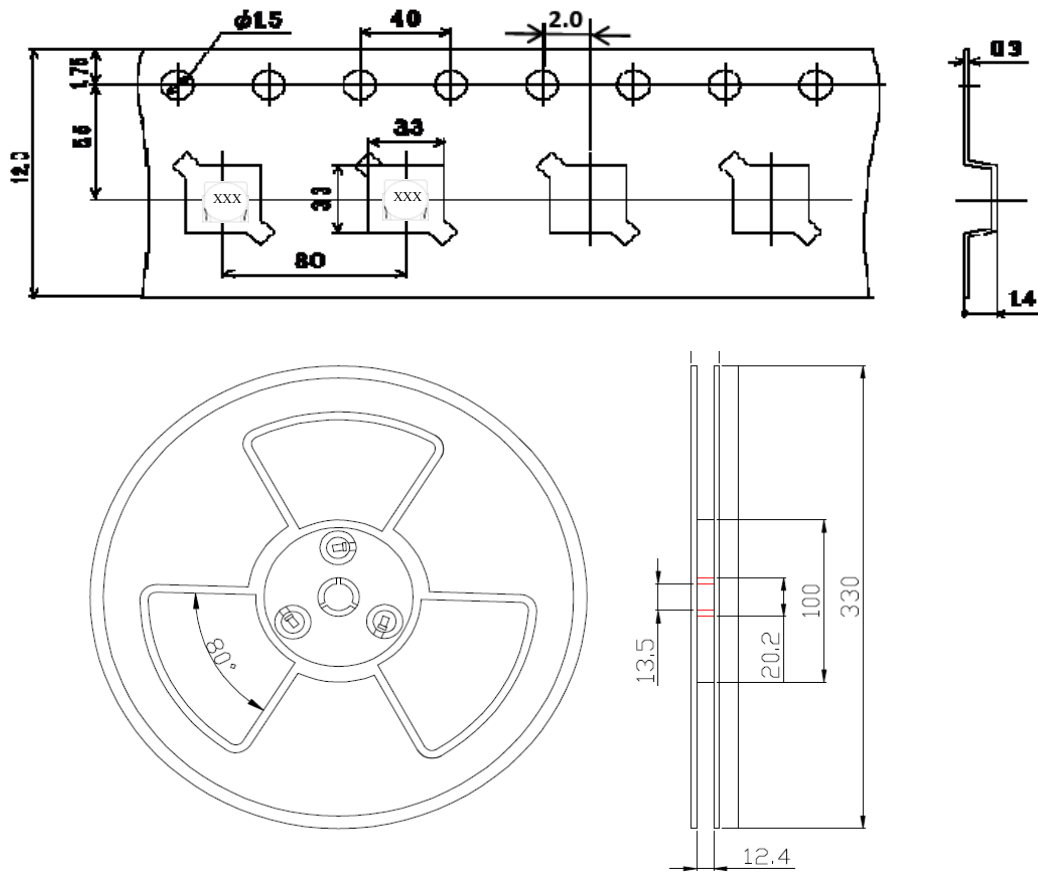
ASPI-0312FSSA



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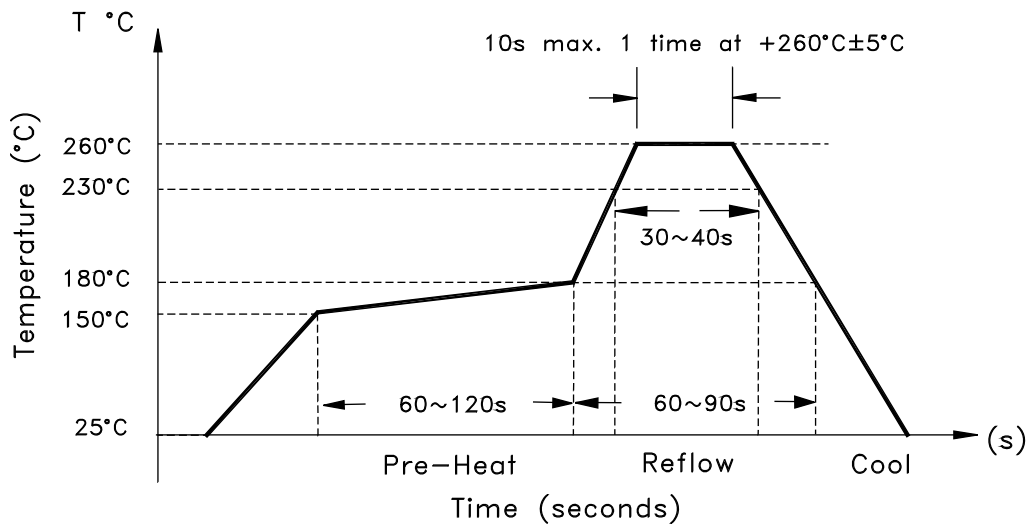
## TAPE & REEL:

T: 1,000pcs / reel  
T4: 4,000pcs / reel



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  
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CERTIFIED



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