



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0310FSSA



**RoHS**  
Compliant



3.0 x 3.0 x 1.0mm

## FEATURES:

- Small size and low profile: 1.0mm
- 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-0310FSSA 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-0310FSSA-2R2M | 2.2                   | 95                       | 1.10               | 1.10                     | 2R2     |
| ASPI-0310FSSA-3R3M | 3.3                   | 140                      | 0.90               | 0.95                     | 3R3     |
| ASPI-0310FSSA-4R7M | 4.7                   | 170                      | 0.77               | 0.90                     | 4R7     |
| ASPI-0310FSSA-6R8M | 6.8                   | 300                      | 0.63               | 0.70                     | 6R8     |
| ASPI-0310FSSA-100M | 10.0                  | 450                      | 0.54               | 0.67                     | 100     |
| ASPI-0310FSSA-220M | 22.0                  | 1030                     | 0.35               | 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-0310FSSA -  -

### Inductance Code

Please refer to the table above

### Packaging

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

# ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0310FSSA



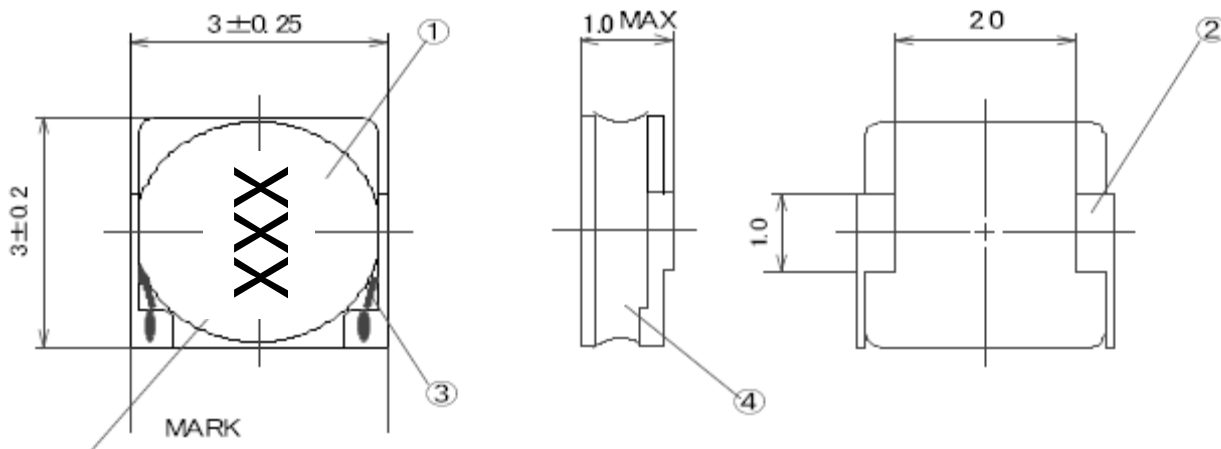
**RoHS**  
Compliant



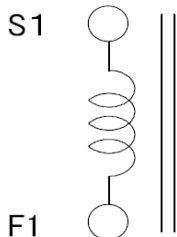
3.0 x 3.0 x 1.0mm

## OUTLINE DRAWING:

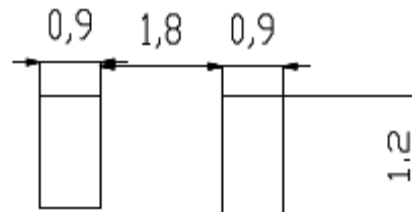
### Mechanical Dimensions



### 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

# ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



3.0 x 3.0 x 1.0mm

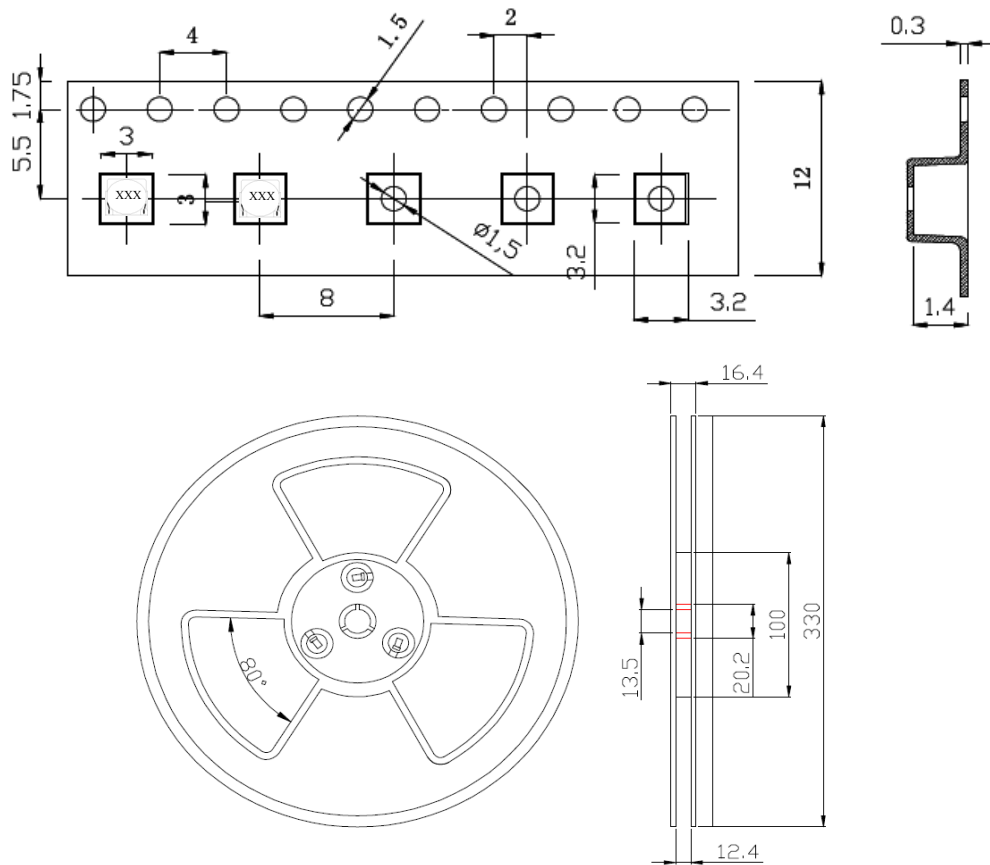
ASPI-0310FSSA



**RoHS**  
Compliant

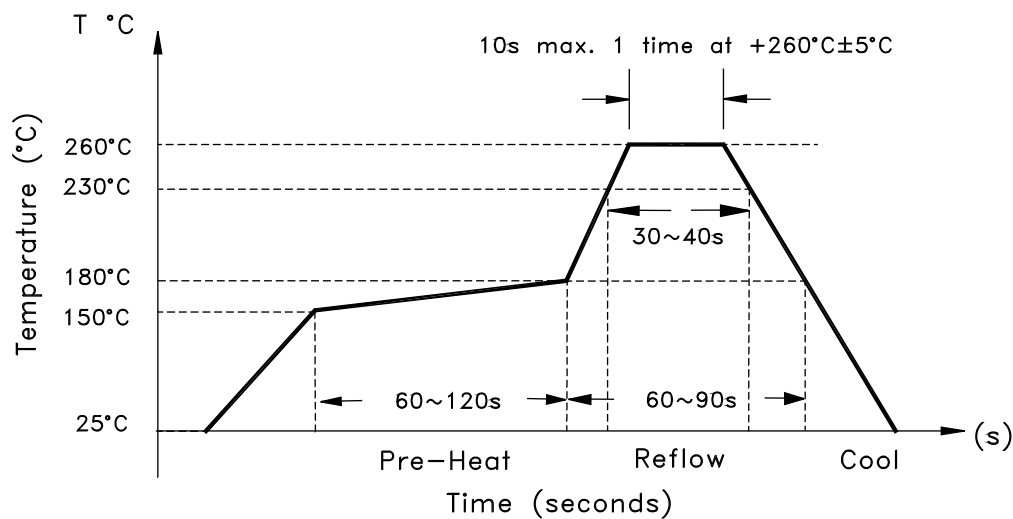
## TAPE & REEL:

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



Dimension: mm

## REFLOW PROFILE:



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