

# 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)

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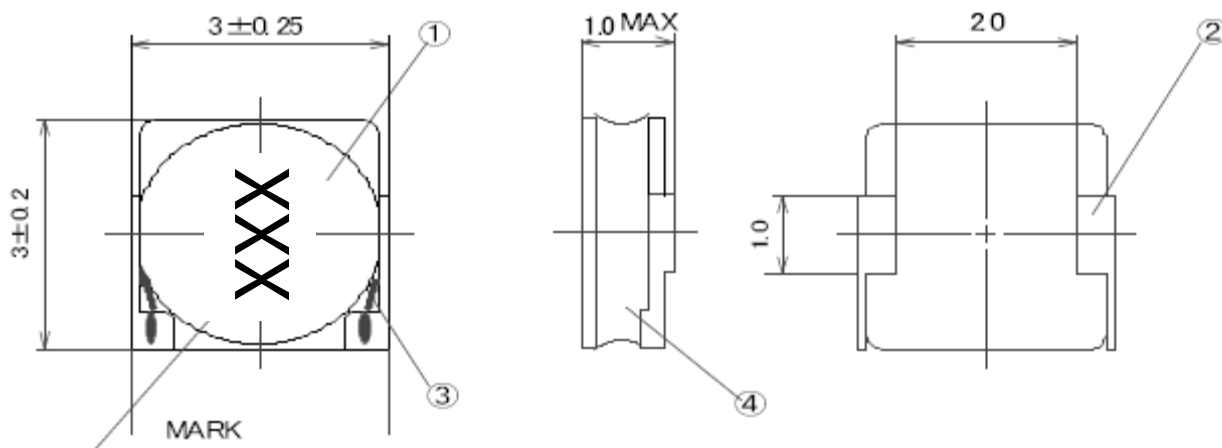
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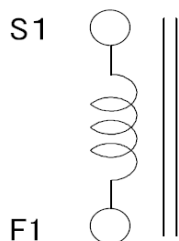
3.0 x 3.0 x 1.0mm

## OUTLINE DRAWING:

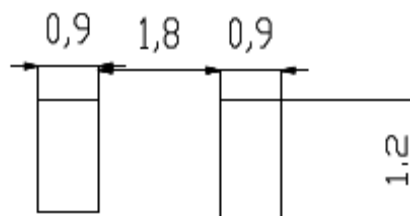
### Mechanical Dimensions



### 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

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3.0 x 3.0 x 1.0mm

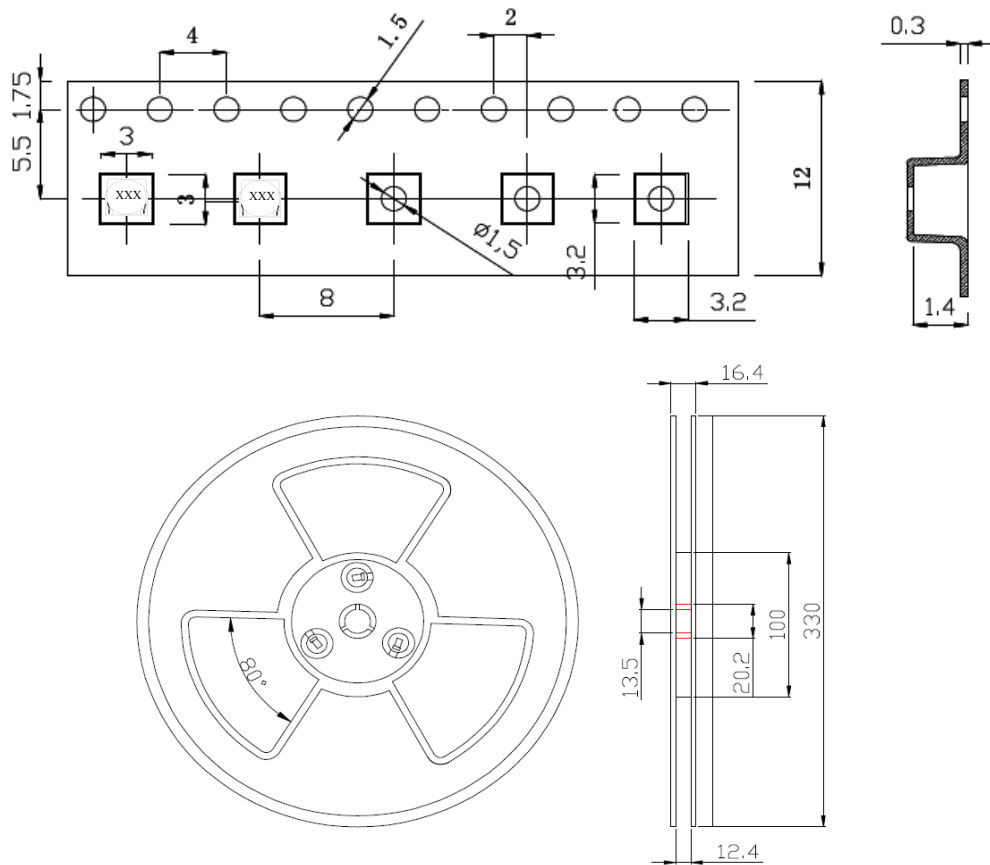
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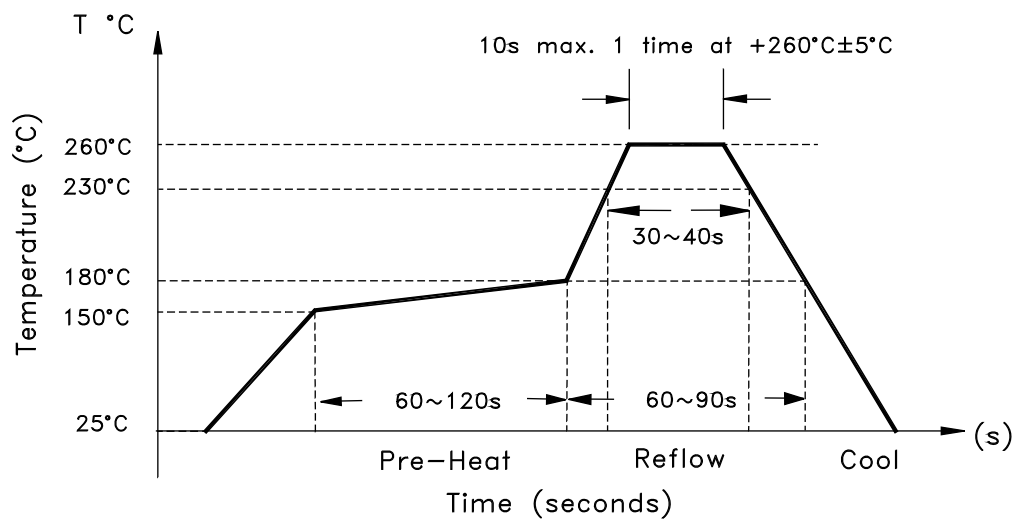
## TAPE & REEL:

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



Dimension: mm

## REFLOW PROFILE:



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