## ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0310FSSA





#### > 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<br>Current | Temperature<br>Rise Current | Marking |
|--------------------|----------------|-----------------|-----------------------|-----------------------------|---------|
| Units              | μ <b>H±20%</b> | mΩ <b>±20</b> % | А                     | Α                           | _       |
| Symbol             | Г              | DCR             | Isat*                 | Irms*                       | _       |
| 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     |

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

#### **Test Conditions**

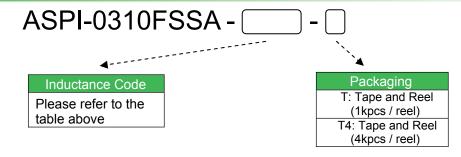
Inductance: 100kHz,0.3V, Ta=20°C

DCR: Ta=20°C

Isat:  $\Delta L/L$  (initial)  $\geq -30\%$ 

Irms:  $\Delta T \leq 40^{\circ}C$ 

### > OPTIONS AND PART IDENTIFICATION



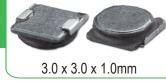




# ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

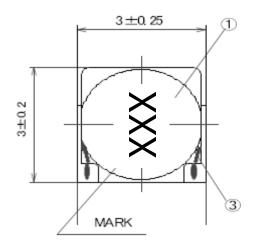
ASPI-0310FSSA

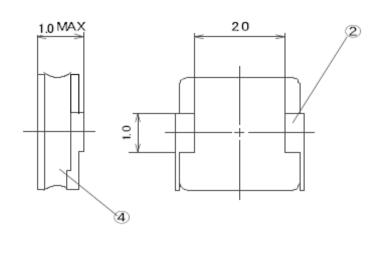




### **OUTLINE DRAWING:**

#### **Mechanical Dimensions**



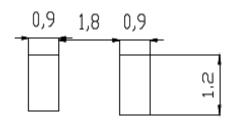


#### **Circuit Schematic**



F1

#### **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 |
| 4  | Magnetic powder | Ni-Zn Ferrite    |

**Dimension: mm** 





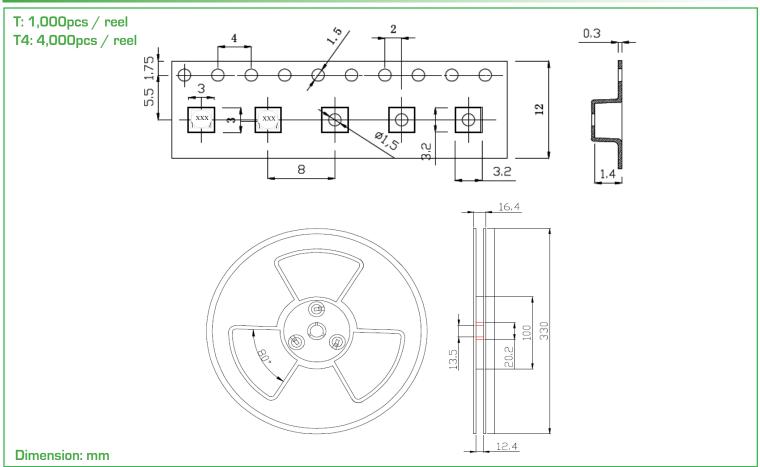
## **ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR**

ASPI-0310FSSA

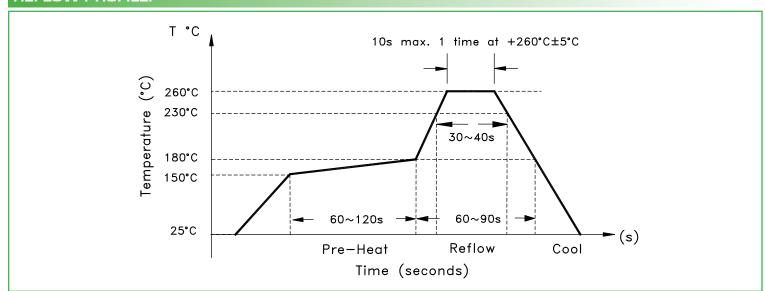




#### > TAPE & REEL:



## 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.



