



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



3.0 x 3.0 x 1.0mm

ASPI-0310FS



**RoHS**  
Compliant

## 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:

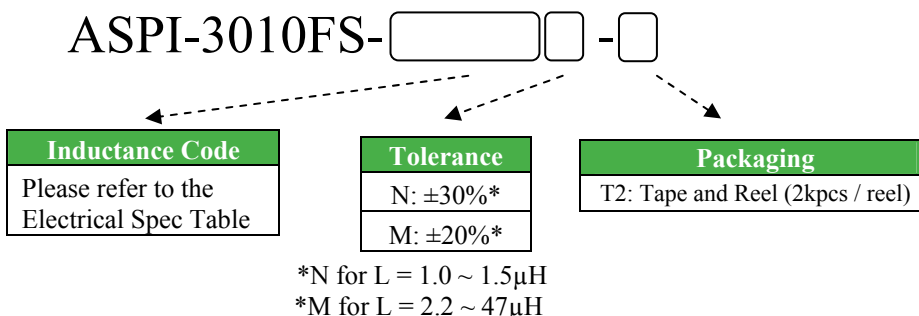
|                                    |   |
|------------------------------------|---|
| Abracon P/N:                       | ASPI-0310FS Series                              |
| Operating Temperature & Humidity : | -25°C to +120°C (Including self generated heat) |
| Storage Temperature & Humidity:    | -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-0310FS-1R0 | 1.0        | N                    | 50   | ±25%          | 2.30               | 2.30                     |
| ASPI-0310FS-1R2 | 1.2        | N                    | 62   | ±30%          | 1.90               | 2.10                     |
| ASPI-0310FS-1R5 | 1.5        | N                    | 70   |               | 1.65               | 2.00                     |
| ASPI-0310FS-2R2 | 2.2        | M                    | 80   | ±20%          | 1.45               | 1.90                     |
| ASPI-0310FS-3R3 | 3.3        | M                    | 130  |               | 1.05               | 1.80                     |
| ASPI-0310FS-4R7 | 4.7        | M                    | 175  |               | 0.85               | 1.70                     |
| ASPI-0310FS-6R8 | 6.8        | M                    | 260  |               | 0.70               | 1.30                     |
| ASPI-0310FS-100 | 10.0       | M                    | 350  |               | 0.60               | 0.90                     |
| ASPI-0310FS-150 | 15.0       | M                    | 510  |               | 0.50               | 0.80                     |
| ASPI-0310FS-220 | 22.0       | M                    | 780  |               | 0.40               | 0.70                     |
| ASPI-0310FS-330 | 33.0       | M                    | 1100 |               | 0.32               | 0.50                     |
| ASPI-0310FS-470 | 47.0       | M                    | 1600 |               | 0.28               | 0.35                     |

## Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in DU-5011 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



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3.0 x 3.0 x 1.0mm

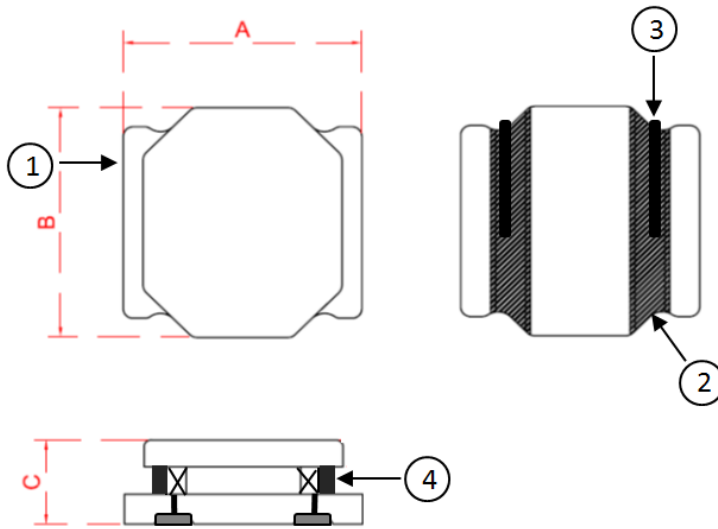
ASPI-0310FS



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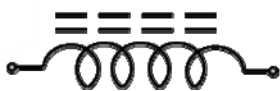
## OUTLINE DRAWING:

Mechanical and Material Information 1 (Effective date: 11/10/2011)



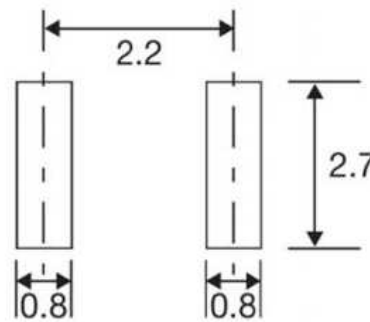
| A       | B       | C Max. |
|---------|---------|--------|
| 3.0±0.1 | 3.0±0.1 | 1.0    |

### Circuit Schematic



No Polarity

### Recommended Land Pattern



Dimension: mm

### Materials

| No | Part Name       | Material           |
|----|-----------------|--------------------|
| 1  | Ferrite core    | Ni-Zn Ferrite      |
| 2  | Terminals       | Ag/Ni/Sn           |
| 3  | Coil            | Cu/P180 Grd 1      |
| 4  | Adhesive        | Silicon Base Resin |
|    | Magnetic Powder | Ni-Zn Ferrite      |

# ULTRA LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



3.0 x 3.0 x 1.0mm

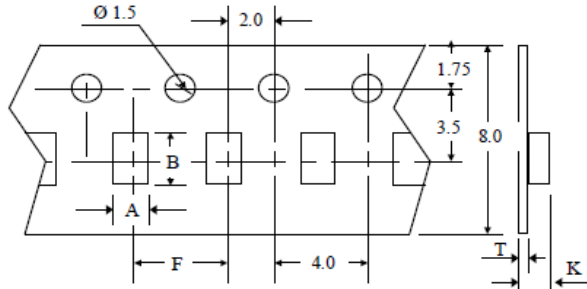
ASPI-0310FS



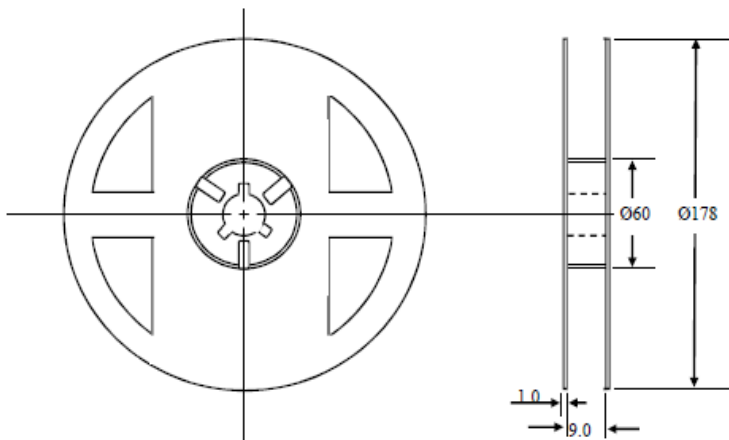
**RoHS**  
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## TAPE & REEL:

T2: 2,000pcs / reel

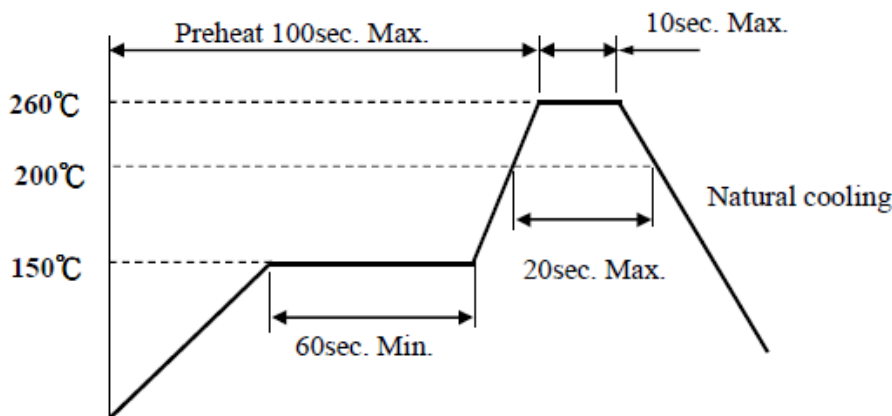


|   |      |
|---|------|
| A | 3.15 |
| B | 3.15 |
| K | 1.40 |
| F | 4    |
| T | 0.25 |



Dimension: mm

## REFLOW PROFILE:



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