

# Low Profile Shielded SMD Chip Power Inductor

ASPI-2512 series



RoHS  
Compliant



2.5 x 2.0 x 1.2mm

## 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:

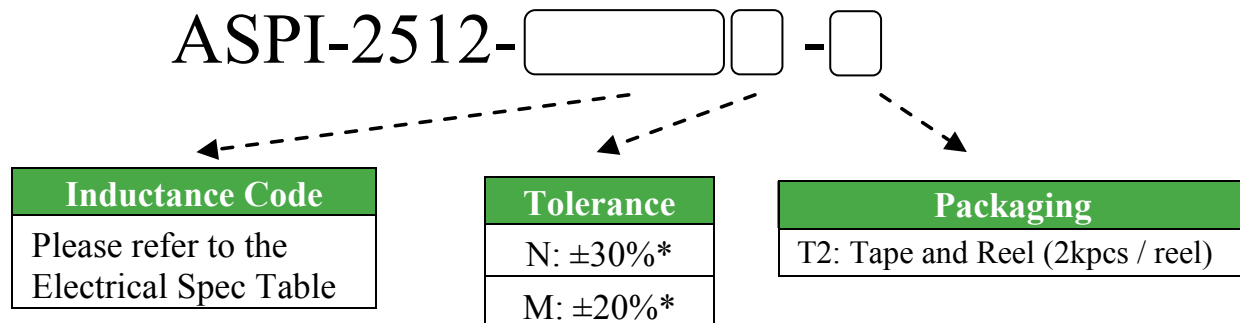
|                                    |                                                 |
|------------------------------------|-------------------------------------------------|
| Abracon P/N:                       | ASPI-2512 Series                                |
| Operating Temperature & Humidity : | -25°C to +120°C (Including self generated heat) |
| Storage Temperature & Humidity:    | -10°C to +40°C, 30% to 70% RH                   |

| Part Number<br>ASPI-2512-Inductance Code | Inductance | Inductance<br>Tolerance | DCR      | Saturation<br>Current | Temperature<br>Rise Current |
|------------------------------------------|------------|-------------------------|----------|-----------------------|-----------------------------|
| Units                                    | μH         | %                       | mΩ ± 20% | A                     | A                           |
| Symbol                                   | L          | M, N                    | DCR      | Isat                  | Irms                        |
| ASPI-2512-R47                            | 0.47       | N                       | 47       | 2.75                  | 2.15                        |
| ASPI-2512-1R0                            | 1.0        | N                       | 73       | 2.20                  | 1.70                        |
| ASPI-2512-1R5                            | 1.5        | N                       | 105      | 1.80                  | 1.45                        |
| ASPI-2512-2R2                            | 2.2        | M                       | 129      | 1.55                  | 1.30                        |
| ASPI-2512-3R3                            | 3.3        | M                       | 227      | 1.25                  | 0.98                        |
| ASPI-2512-4R7                            | 4.7        | M                       | 338      | 1.05                  | 0.81                        |
| ASPI-2512-6R8                            | 6.8        | M                       | 510      | 0.85                  | 0.65                        |
| ASPI-2512-100                            | 10.0       | M                       | 630      | 0.73                  | 0.59                        |

### 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 ( $\Delta L/L_o : \leq -30\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$  )
5. Test Freq: 100KHz, 1Vrms

## OPTIONS AND PART IDENTIFICATION



\*N for L = 0.47~1.5μH

\*M for L = 2.2 ~ 10μH

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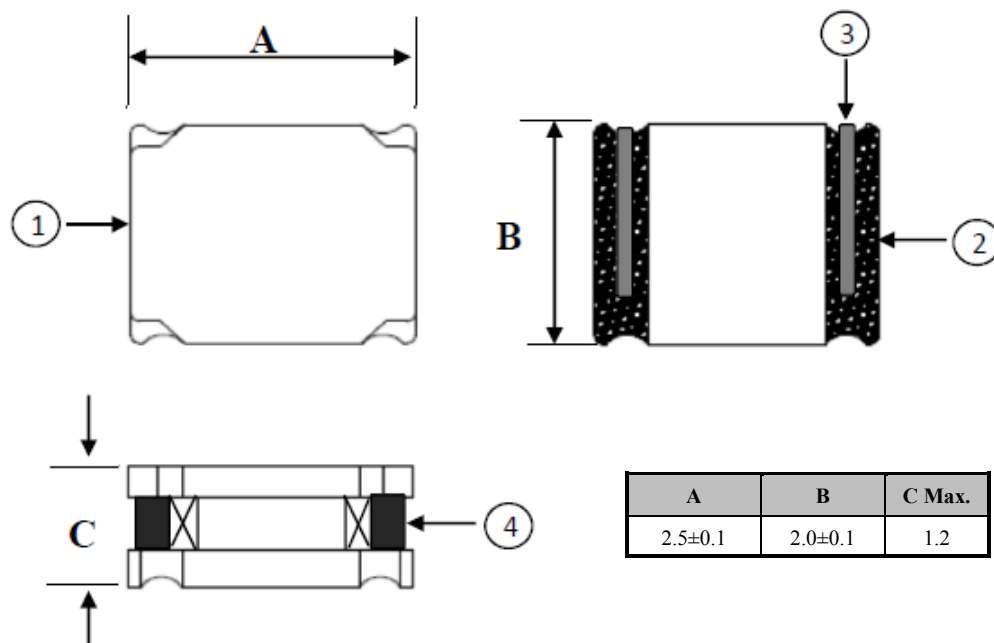
**RoHS**  
Compliant



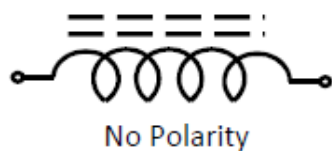
2.5 x 2.0 x 1.2mm

## OUTLINE DRAWING:

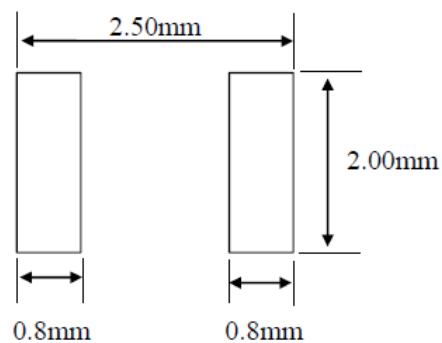
### Mechanical Dimensions



### Circuit Schematic



### Recommended Land Pattern



### 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      |

Dimension: mm



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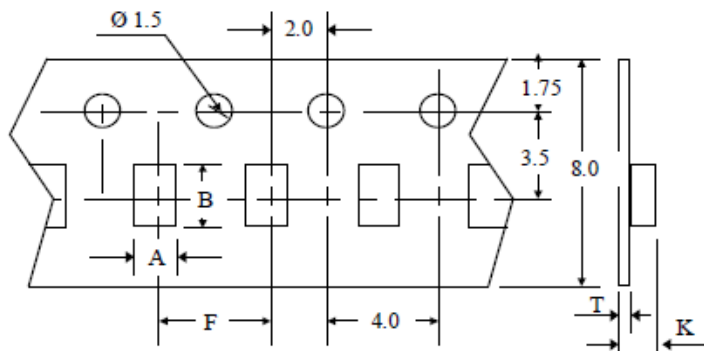
**RoHS**  
Compliant



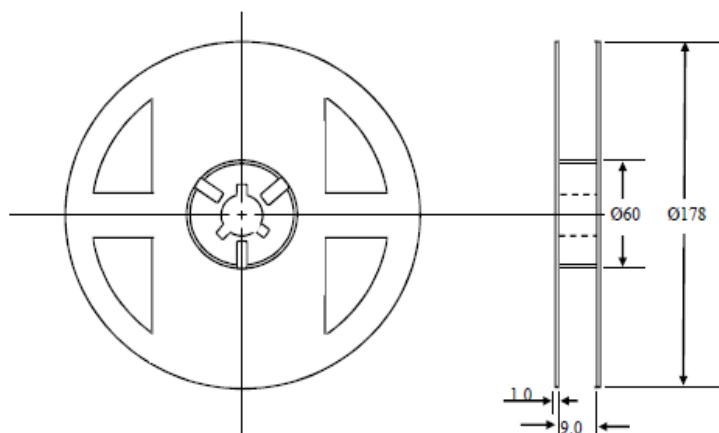
2.5 x 2.0 x 1.2mm

## TAPE & REEL:

T: 2,000pcs / reel

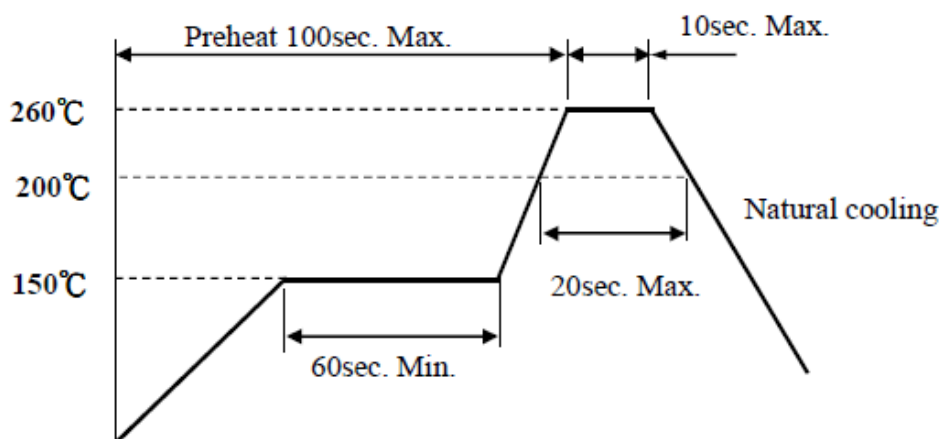


|   |      |
|---|------|
| A | 2.27 |
| B | 2.74 |
| K | 1.40 |
| F | 4    |
| T | 0.25 |



Dimension: mm

## REFLOW PROFILE:



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Revised: 08.18.11

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