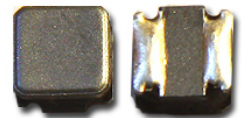


# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



6.0 x 6.0 x 2.8mm

ASPI-0628



**RoHS**  
Compliant

## FEATURES:

- Small size and low profile: 2.8mm
- 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.

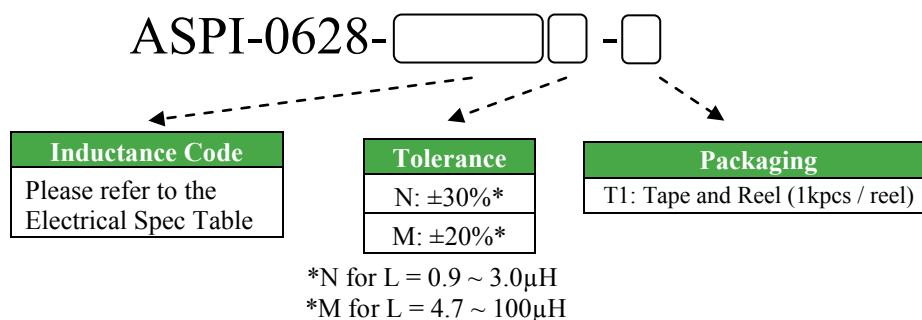
## ELECTRICAL SPECIFICATIONS:

|                                   |   |
|-----------------------------------|---|
| Abracon P/N:                      | ASPI-0628 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-0628-0R9 | 0.9        | N                    | 13  | ±30%          | 6.70               | 4.60                     |
| ASPI-0628-1R5 | 1.5        | N                    | 16  |               | 5.10               | 4.20                     |
| ASPI-0628-2R2 | 2.2        | N                    | 20  |               | 4.20               | 3.70                     |
| ASPI-0628-3R0 | 3.0        | N                    | 23  |               | 3.60               | 3.40                     |
| ASPI-0628-3R3 | 3.3        | M                    | 28  |               | 3.60               | 3.40                     |
| ASPI-0628-3R9 | 3.9        | M                    | 31  | ±20%          | 2.70               | 3.00                     |
| ASPI-0628-4R7 | 4.7        | M                    | 31  |               | 2.70               | 3.00                     |
| ASPI-0628-6R0 | 6.0        | M                    | 40  |               | 2.50               | 2.50                     |
| ASPI-0628-6R2 | 6.2        | M                    | 52  |               | 2.20               | 2.20                     |
| ASPI-0628-6R8 | 6.8        | M                    | 52  |               | 2.20               | 2.20                     |
| ASPI-0628-100 | 10         | M                    | 65  |               | 1.90               | 1.90                     |
| ASPI-0628-150 | 15         | M                    | 95  |               | 1.60               | 1.80                     |
| ASPI-0628-220 | 22         | M                    | 135 |               | 1.30               | 1.40                     |
| ASPI-0628-330 | 33         | M                    | 220 |               | 1.10               | 1.10                     |
| ASPI-0628-470 | 47         | M                    | 300 |               | 1.00               | 0.92                     |
| ASPI-0628-680 | 68         | M                    | 420 | 0.80          | 0.77               |                          |
| ASPI-0628-101 | 100        | M                    | 600 | 0.65          | 0.66               |                          |

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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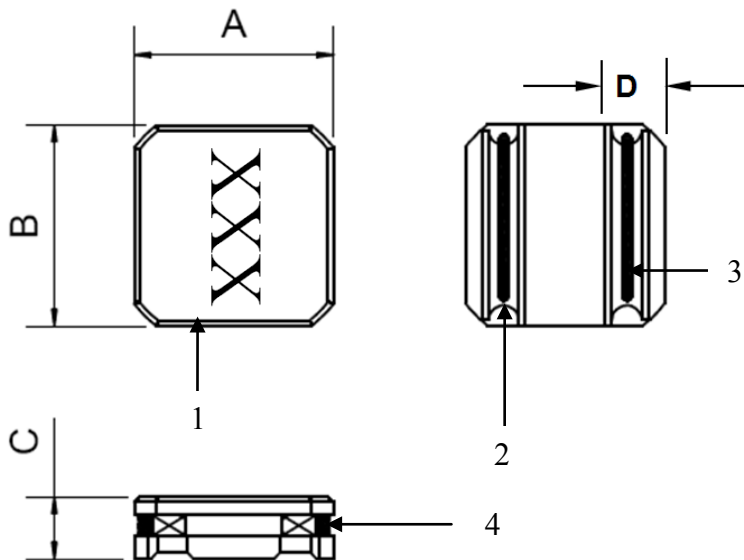
6.0 x 6.0 x 2.8mm

ASPI-0628



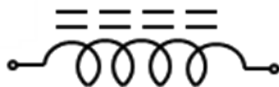
**RoHS**  
Compliant

## OUTLINE DRAWING:



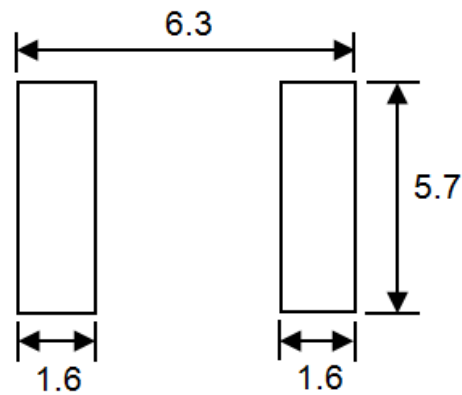
| A       | B       | C Max. | D Typ. |
|---------|---------|--------|--------|
| 6.0±0.2 | 6.0±0.2 | 2.8    | 1.50   |

### 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      |



# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



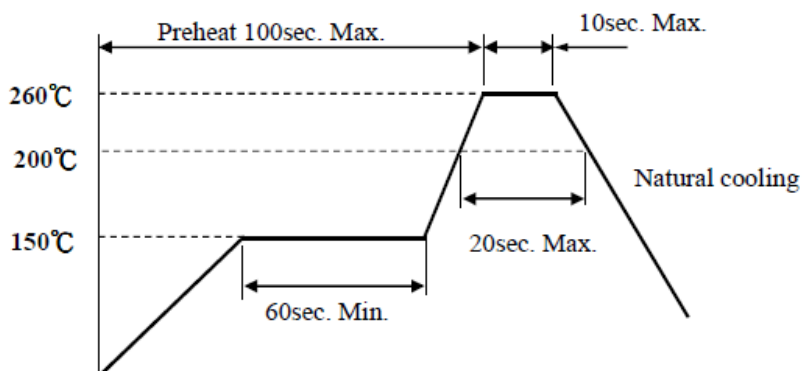
6.0 x 6.0 x 2.8mm

ASPI-0628

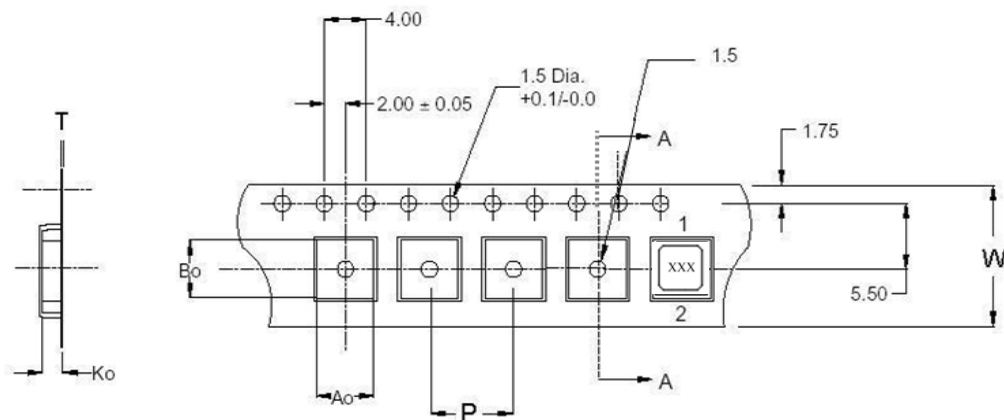


**RoHS**  
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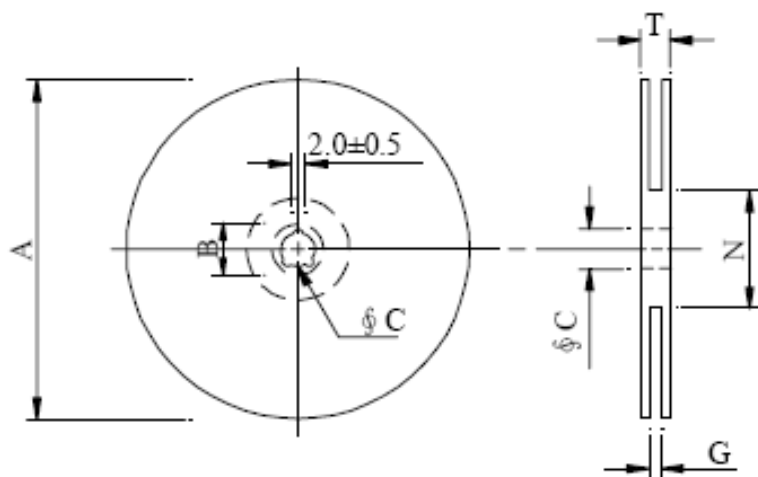
## REFLOW PROFILE:



## TAPE & REEL: T1: 1,000pcs / reel



|    |       |
|----|-------|
| Ao | 6.40  |
| Bo | 6.40  |
| Ko | 3.05  |
| W  | 16.00 |
| P  | 12.00 |
| T  | 0.40  |

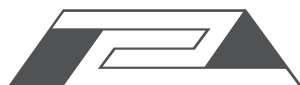


|   |          |
|---|----------|
| A | 330      |
| B | 21.0±0.8 |
| C | 13.5±0.5 |
| G | 16.6     |
| N | 99.5     |
| T | 21       |

Dimension: mm

**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.

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