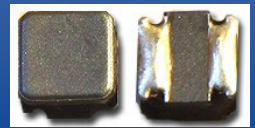


# Low Profile Shielded SMD Chip Power Inductor



**ASPI-0628 Series**

Request Samples



Check Inventory



6.0 x 6.0 x 2.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## 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

| Part Number<br>ASPI-0628-<br>Inductance Code | Inductance | Inductance<br>Tolerance | DCR | DCR<br>Tolerance | Saturation<br>Current | Temperature<br>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                  |                             |

## 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

**Operating Temperature:** -25°C to +120°C (Including self generated heat)

**Storage Temperature and Humidity:** -10°C to +40°C, 30% to 70% RH



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# Low Profile Shielded SMD Chip Power Inductor



ASPI-0628 Series

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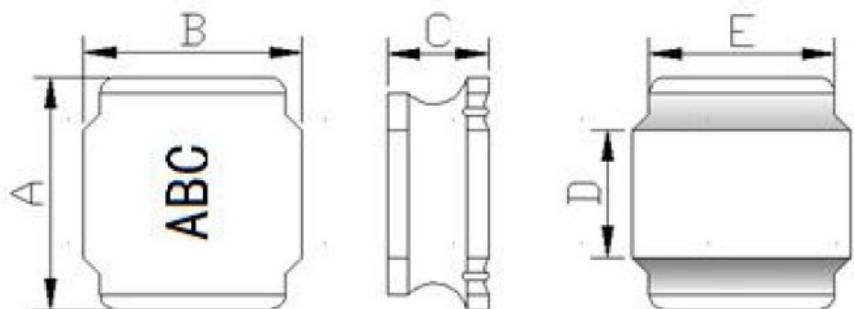


Check Inventory

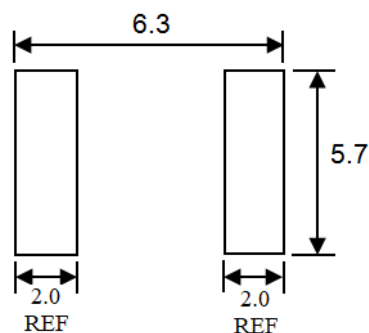


6.0 x 6.0 x 2.8 mm  
 RoHS/RoHS II Compliant  
 MSL Level = 1

## Mechanical Specifications



| A       | B       | C Max. | D Typ. |
|---------|---------|--------|--------|
| 6.0±0.3 | 6.0±0.3 | 2.8    | 1.50   |



## Recommended Land Pattern

Dimension: mm

## Part Identification

ASPI-0628---

**Inductance Code**  
 Please refer to the  
 Electrical Spec Table

**Tolerance**  
 N: ±30%\*  
 M: ±20%\*

**Packaging**  
 T1 Tape and Reel (1kpcs / reel)

\*N for L = 0.9 ~ 3.0μH

\*M for L = 3.3 ~ 100μH



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# Low Profile Shielded SMD Chip Power Inductor



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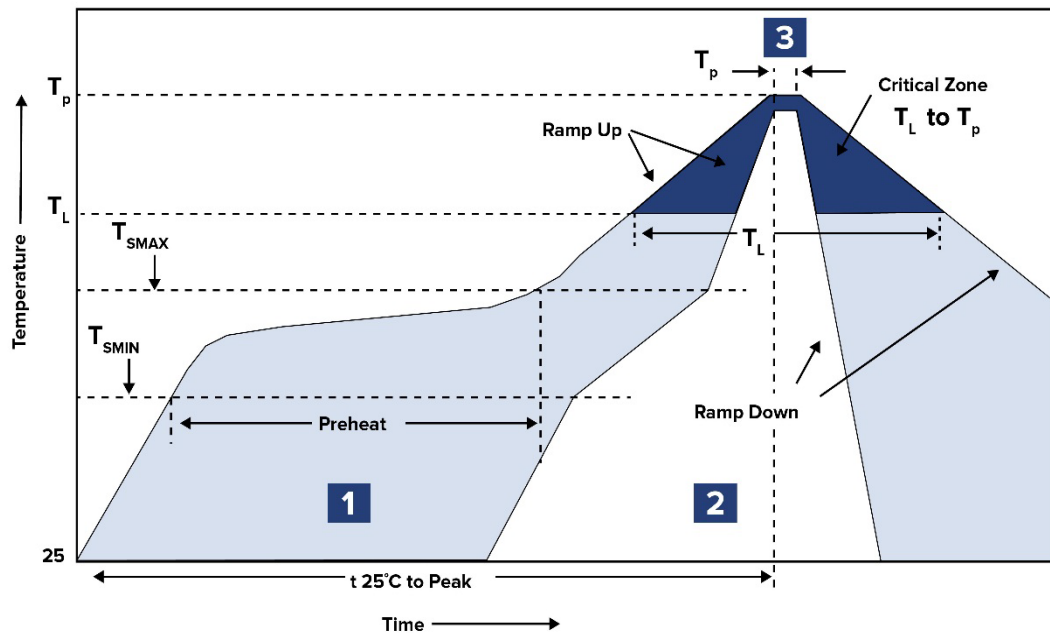


Check Inventory



6.0 x 6.0 x 2.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Reflow Profile



| Zone | Description | Temperature                               | Times         |
|------|-------------|---|---------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 200°C | 60 ~ 100 sec. |
| 2    | Reflow      | $T_L$<br>217°C                            | 20 sec. MAX   |
| 3    | Peak heat   | $T_P$<br>260°C±5°C                        | 10 sec. MAX   |

# Low Profile Shielded SMD Chip Power Inductor



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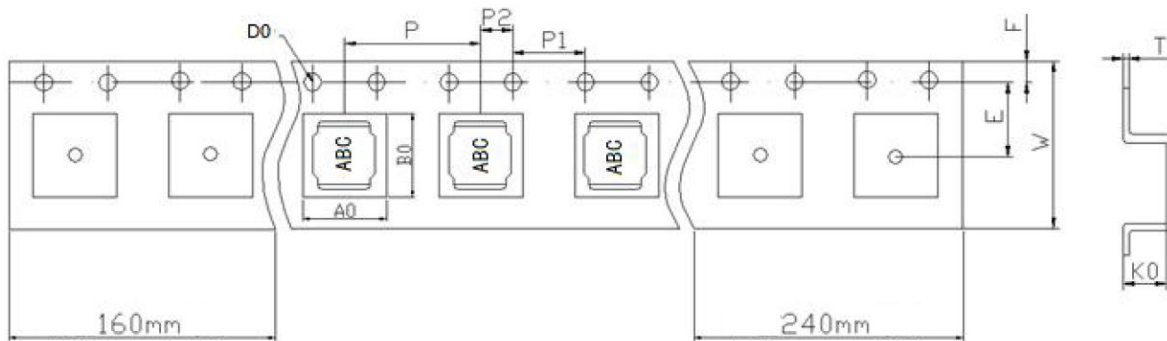
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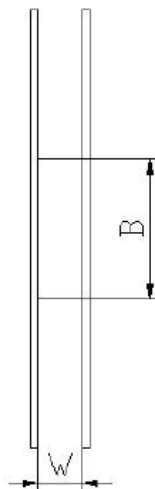
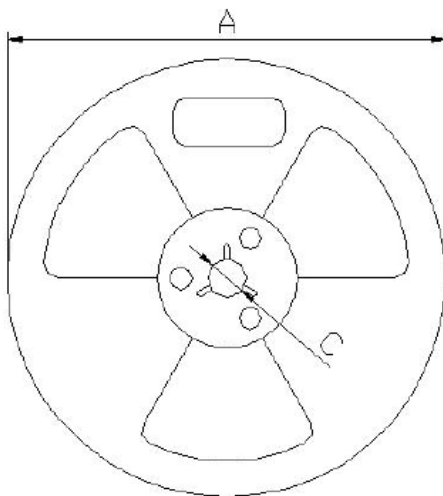
**6.0 x 6.0 x 2.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**T1: 1,000pcs / reel**



| Dim         | W        | A0      | B0      | K0       | P       | E       | F        | D0      | P0      | P2      | T         |
|-------------|----------|---------|---------|----------|---------|---------|----------|---------|---------|---------|-----------|
| ASPI-0615FS | 12.0±0.3 | 6.3±0.1 | 6.3±0.1 | 3.0 ±0.1 | 8.0±0.1 | 7.5±0.1 | 1.75±0.1 | 1.5±0.1 | 4.0±0.1 | 2.0±0.1 | 0.35±0.05 |



|          |                 |
|----------|-----------------|
| <b>A</b> | <b>330±0.5</b>  |
| <b>B</b> | <b>100±0.5</b>  |
| <b>C</b> | <b>13.5±0.5</b> |
| <b>W</b> | <b>12.5±0.5</b> |

**Dimension: mm**

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