

LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0615FS



RoHS/RoHS II Compliant



6.0 x 6.0 x 2.0mm

FEATURES:

- Small size and low profile: 2.0mm
- Small DCR and high rated current
- High reliability to mechanical strength
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

APPLICATIONS:

- DC/DC converter for LCD display of notebook PC
- Portable communication equipment
- Digital cameras

ELECTRICAL SPECIFICATIONS:

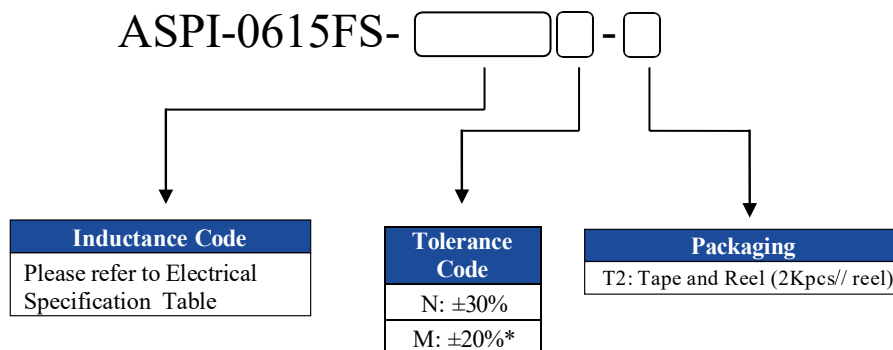
| | |
|------------------------------------|---|
| Abracon P/N: | ASPI-0615FS Series |
| Operating Temperature & Humidity : | -40°C to +125°C (Including self generated heat) |
| Storage Temperature & Humidity: | -40°C to +125°C |

| Part Number ASPI-0615FS- Inductance Code | Inductance | Inductance Tolerance | DCR | DCR Tolerance | Saturation Current | Temperature Rise Current |
|--|------------|-------------------------|-----|------------------|-----------------------|-----------------------------|
| Units | H | % | mΩ | % | A | A |
| Symbol | L | M, N | DCR | | Isat | Irms |
| ASPI-0615FS-R50 | 0.5 | N | 9 | ±30% | 7.00 | 5.20 |
| ASPI-0615FS-R80 | 0.8 | N | 12 | | 6.00 | 4.10 |
| ASPI-0615FS-1R5 | 1.5 | N | 17 | | 4.00 | 3.60 |
| ASPI-0615FS-2R2 | 2.2 | N | 24 | | 3.50 | 2.90 |
| ASPI-0615FS-3R3 | 3.3 | M | 30 | ±20% | 2.80 | 2.80 |
| ASPI-0615FS-4R7 | 4.7 | M | 43 | | 2.40 | 2.20 |
| ASPI-0615FS-5R6 | 5.6 | M | 55 | | 2.20 | 2.00 |
| ASPI-0615FS-6R8 | 6.8 | M | 60 | | 2.00 | 1.80 |
| ASPI-0615FS-100 | 10 | M | 90 | | 1.90 | 1.50 |
| ASPI-0615FS-150 | 15 | M | 120 | | 1.30 | 1.20 |
| ASPI-0615FS-220 | 22 | M | 170 | | 1.10 | 1.00 |
| ASPI-0615FS-330 | 33 | M | 310 | | 0.90 | 0.90 |
| ASPI-0615FS-470 | 47 | M | 370 | 0.80 | 0.80 | |

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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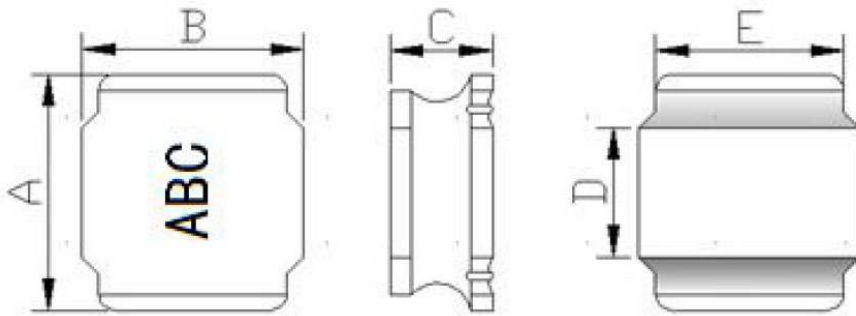
6.0 x 6.0 x 2.0mm

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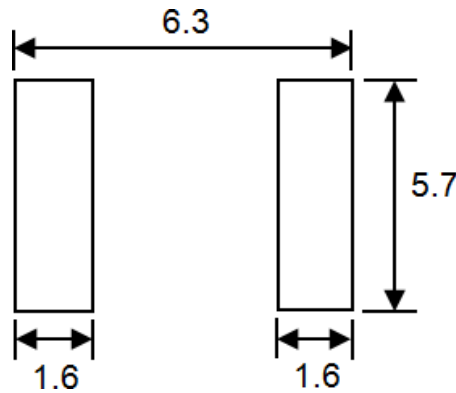


RoHS/RoHS II Compliant

OUTLINE DRAWING:



| A | B | C | D Typ. |
|---------|---------|---------|--------|
| 6.0±0.2 | 6.0±0.2 | 2.0±0.2 | 1.50 |



Recommended Land Pattern

Dimension: mm

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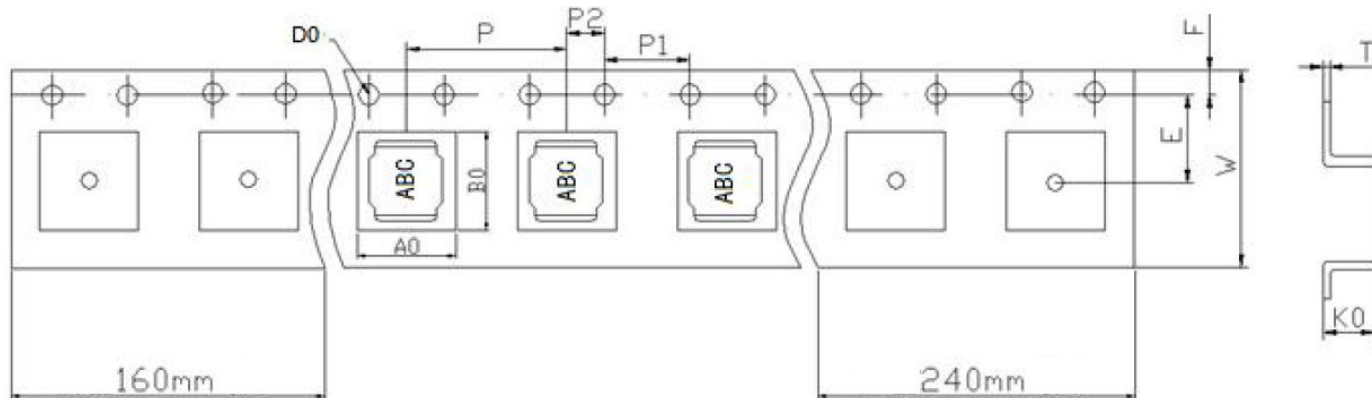
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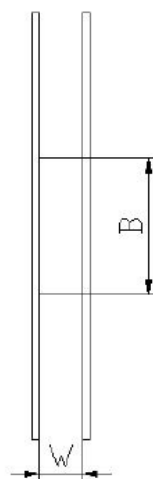
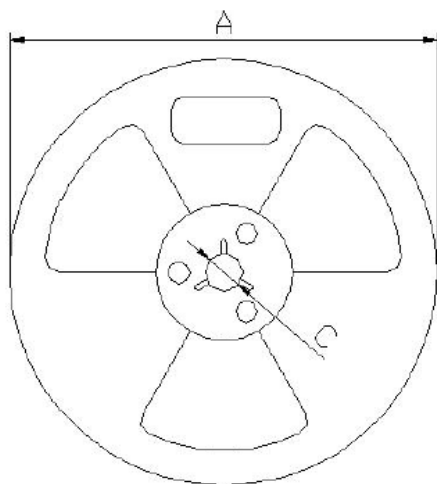
6.0 x 6.0 x 2.0mm

TAPE & REEL:

T2: 2,000pcs / 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 | 2.2±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 |



| | |
|---|----------|
| A | 330±0.5 |
| B | 100±0.5 |
| C | 13.5±0.5 |
| W | 12.5±0.5 |

Dimension: mm

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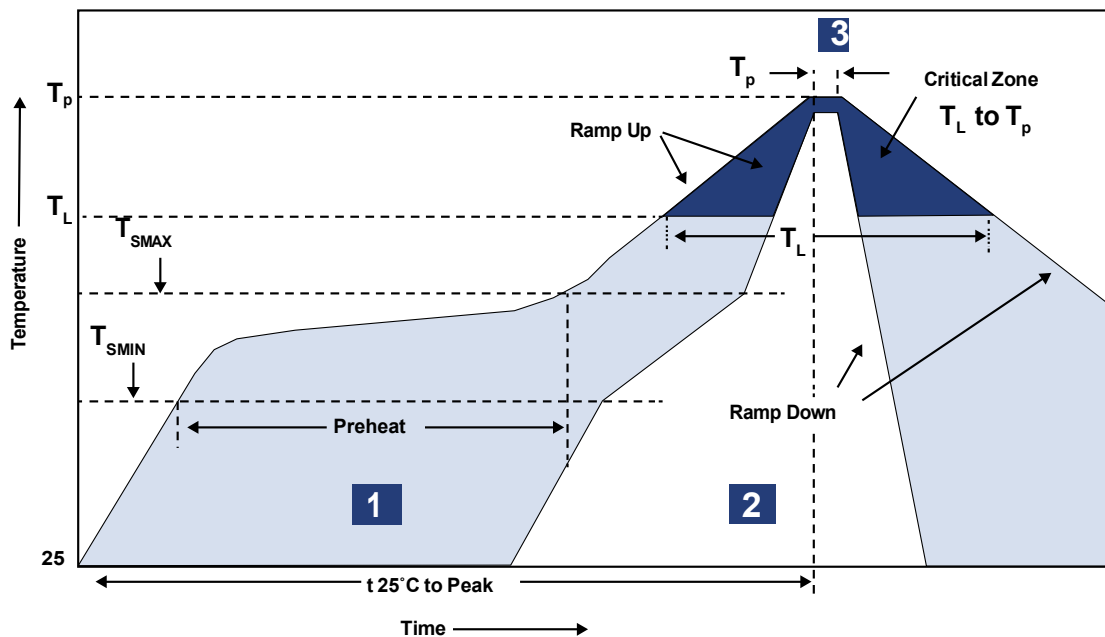


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6.0 x 6.0 x 2.0mm

REFLOW PROFILE:



| Zone | Description | Temperature | Time |
|------|----------------|---------------------|---------------|
| 1 | Preheat / Soak | T_{SMAX} 150°C | 60 ~ 100 sec. |
| 2 | Reflow | T_L 200°C | 20 sec. MAX |
| 3 | Peak heat | T_p 260°C | 10 sec. MAX |

Dimension: mm

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