

# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



4.0 x 4.0 x 2.5mm

ASPI-0425



**RoHS**  
Compliant

## FEATURES:

- Small size and low profile: 2.5mm
- Small DCR and high rated current
- High reliability to mechanical strength
- 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-0418FS 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-0425-1R0 | 1.0        | N                    | 12   | ±30%          | 3.00               | 3.00                     |
| ASPI-0425-1R2 | 1.2        | N                    | 18   |               | 2.75               | 2.75                     |
| ASPI-0425-2R2 | 2.2        | N                    | 22   |               | 2.10               | 2.10                     |
| ASPI-0425-3R3 | 3.3        | M                    | 30   | ±20%          | 1.60               | 1.60                     |
| ASPI-0425-4R7 | 4.7        | M                    | 40   |               | 1.40               | 1.40                     |
| ASPI-0425-6R8 | 6.8        | M                    | 70   |               | 1.20               | 1.20                     |
| ASPI-0425-100 | 10         | M                    | 85   |               | 0.97               | 0.97                     |
| ASPI-0425-150 | 15         | M                    | 120  |               | 0.77               | 0.77                     |
| ASPI-0425-220 | 22         | M                    | 195  |               | 0.67               | 0.67                     |
| ASPI-0425-330 | 33         | M                    | 305  |               | 0.50               | 0.50                     |
| ASPI-0425-470 | 47         | M                    | 495  |               | 0.40               | 0.40                     |
| ASPI-0425-680 | 68         | M                    | 710  |               | 0.35               | 0.35                     |
| ASPI-0425-101 | 100        | M                    | 1000 |               | 0.30               | 0.30                     |
| ASPI-0425-151 | 150        | M                    | 1600 | 0.22          | 0.22               |                          |
| ASPI-0425-221 | 220        | M                    | 2300 | 0.20          | 0.20               |                          |

### 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

ASPI-0425---

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

**Tolerance**  
N: ±30%\*  
M: ±20%\*

**Packaging**  
T3: Tape and Reel (3kpcs / reel)

\*N for L = 1.0 ~ 2.2μH  
\*M for L = 3.3 ~ 220μH



# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



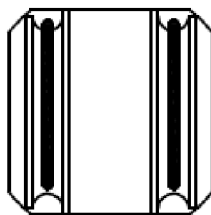
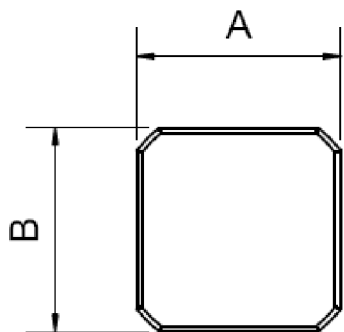
4.0 x 4.0 x 2.5mm

ASPI-0425

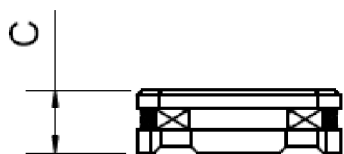


**RoHS**  
Compliant

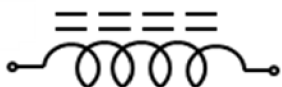
## ▷ OUTLINE DRAWING:



| A       | B       | C Max. |
|---------|---------|--------|
| 4.0±0.2 | 4.0±0.2 | 2.5    |

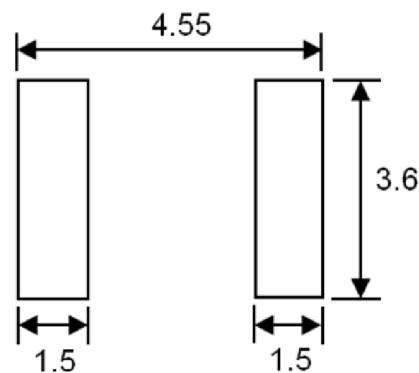


Circuit Schematic

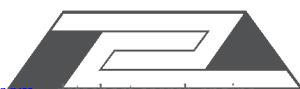


No Polarity

Recommended Land Pattern



Dimension: mm



# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



4.0 x 4.0 x 1.8mm

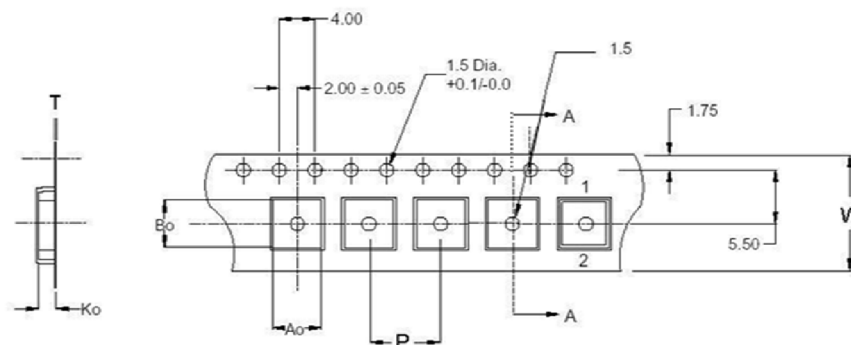
ASPI-0418FS



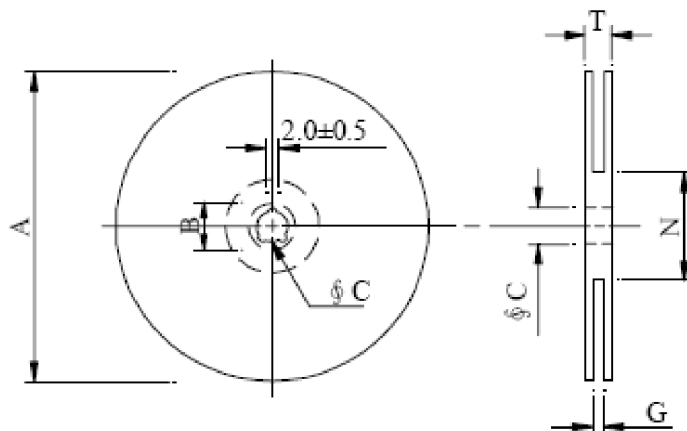
**RoHS**  
Compliant

## TAPE & REEL:

T3: 3,000pcs / reel



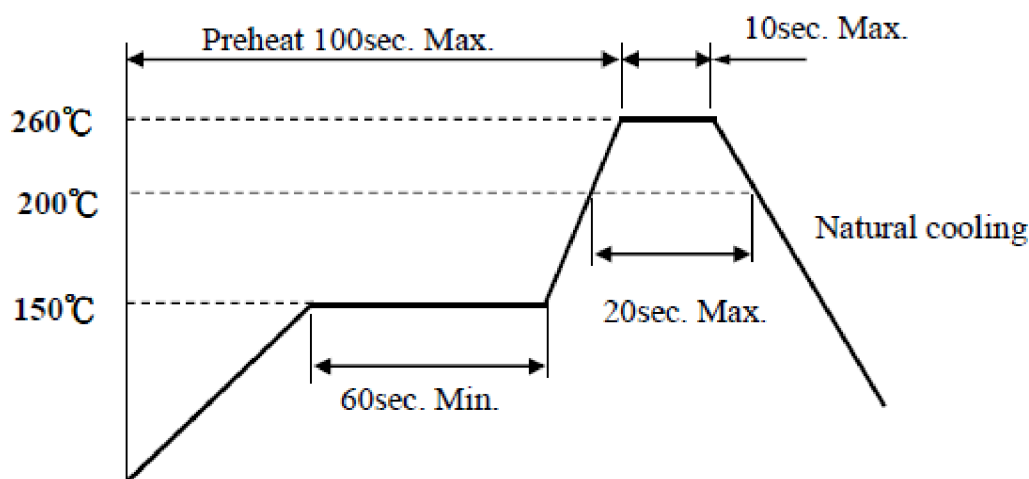
|    |      |
|----|------|
| Ao | 4.20 |
| Bo | 4.20 |
| Ko | 2.75 |
| W  | 12   |
| P  | 8    |
| T  | 0.3  |



|   |          |
|---|----------|
| A | 330      |
| B | 21.0±0.8 |
| C | 13.5±0.5 |
| G | 12.6     |
| N | 99.5     |
| T | 17.2     |

Dimension: mm

## REFLOW PROFILE:



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