# SMD SHIELDED POWER INDUCTOR

ASPI-1306S



18.5 x 15.2 x 7.6 mm

RoHS Compliant

## FEATURES:

- Low radiation shielded architecture
- Large pads for good PCB mounting
- Low DCR, suitable for large currents
- High Energy storage

## APPLICATIONS:

- Portable communication equipment
- OA equipment
- LCD, DVD, modem, set-top box
- DC/ DC converter

## ELECTRICAL SPECIFICATIONS:

| | |
|---|---|
| Abracon P/N: | ASPI-1306S |
| Operating Temperature: | -40˚C to +125˚C (including self-generated heat) |
| Storage Temperature: | -40˚C to +125˚C |

| PART NUMBER | INDUCTANCE (uH) ±20% | DCR(Ω) max | Isat (A) max | Irms (A) max | Q | SRF (MHz) Ref. |
|---|---|---|---|---|---|---|
| ASPI-1306S-100M | 10 | 0.040 | 8.00 | 3.90 | 30.0 | 8.0 |
| ASPI-1306S-150M | 15 | 0.048 | 7.00 | 3.40 | 20.0 | 7.0 |
| ASPI-1306S-220M | 22 | 0.059 | 6.00 | 3.10 | 18.0 | 6.0 |
| ASPI-1306S-330M | 33 | 0.075 | 5.00 | 2.80 | 14.0 | 5.0 |
| ASPI-1306S-470M | 47 | 0.097 | 4.00 | 2.40 | 10.0 | 4.0 |
| ASPI-1306S-680M | 68 | 0.138 | 3.00 | 2.00 | 9.0 | 3.0 |
| ASPI-1306S-101M | 100 | 0.207 | 2.40 | 1.70 | 7.0 | 2.4 |
| ASPI-1306S-151M | 150 | 0.293 | 2.10 | 1.30 | 6.0 | 2.1 |
| ASPI-1306S-221M | 220 | 0.470 | 1.90 | 1.10 | 5.0 | 1.9 |
| ASPI-1306S-331M | 330 | 0.780 | 1.10 | 0.86 | 4.0 | 1.1 |
| ASPI-1306S-471M | 470 | 1.08 | 0.90 | 0.73 | 3.0 | 1.1 |
| ASPI-1306S-681M | 680 | 1.40 | 0.96 | 0.64 | 2.5 | 0.96 |
| ASPI-1306S-102M | 1000 | 2.01 | 0.80 | 0.53 | 2.0 | 0.80 |

**Test Conditions**
**Inductance:** 200kHz, 0.1V (10 µH – 15 µH)
Inductance: 100kHz, 0.1V (22 µH – 1000 µH)
**Isat**: ΔL/L (initial) ≥ -10%
**Irms**: ΔT ≤ 40˚C

## OPTIONS AND PART IDENTIFICATION

ASPI-1306S - ☐ ☐ - ☐

| Inductance Code | Tolerance % | Packaging |
|---|---|---|
| Please refer to the table above | M: ± 20% | T: Tape and Reel (250pcs/reel) |

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
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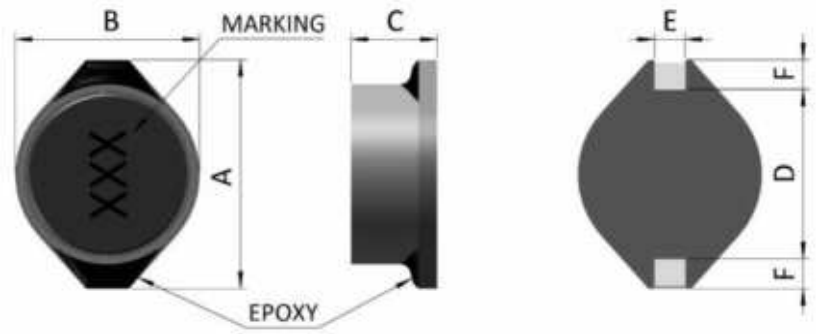
ASPI-1306S

RoHS Compliant

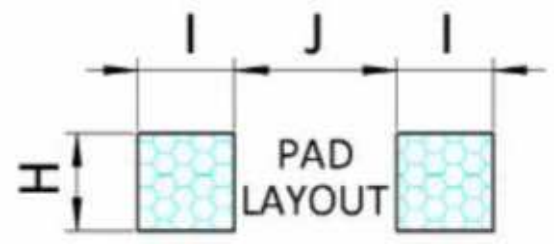


18.5 x 15.2 x 7.6 mm

## MECHANICAL DIMENSIONS




| Part | A (max) | B (max) | C (max) | D | E | F |
|---|---|---|---|---|---|---|
| ASPI-1306S | 18.54 ±0.15 | 15.24 ±0.15 | 7.62 ±0.15 | 12.7 ±0.15 | 2.54 ±0.15 | 2.54 ±0.15 |




| Part | H | I | J |
|---|---|---|---|
| ASPI-1306S | 2.79 ±0.15 | 2.92 ±0.15 | 12.45 ±0.15 |




### Materials

| No | Part Name | Material |
|---|---|---|
| 1 | Core | $Fe_2O_3$ |
| | | Mn3O4 |
| | | ZnO |
| | | TMH 219 expoy insulating powder (Black) |
| 2 | Wire | Copper |
| | | Polyurethane Resin |
| 3 | Base | Aromatic polyester resin |
| | | Class fiber |
| 4 | SN | CU |
| | | Sn |
| | | Ni |

**Dimension: mm**


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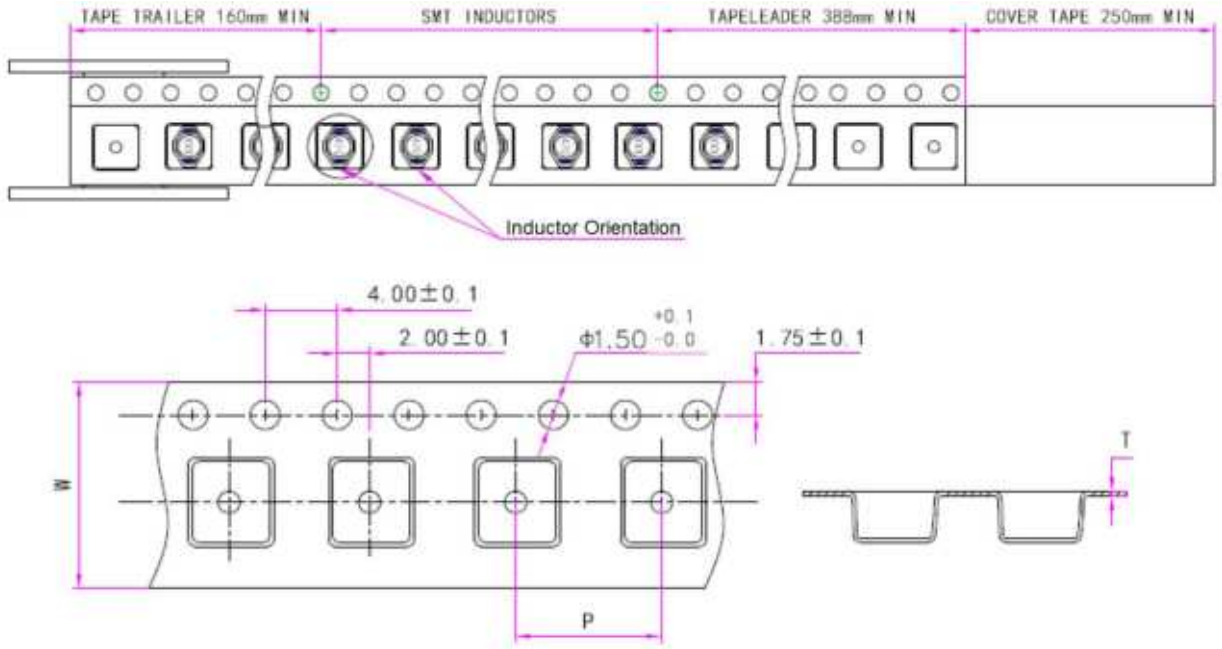

18.5 x 15.2 x 7.6 mm

Pb RoHS Compliant

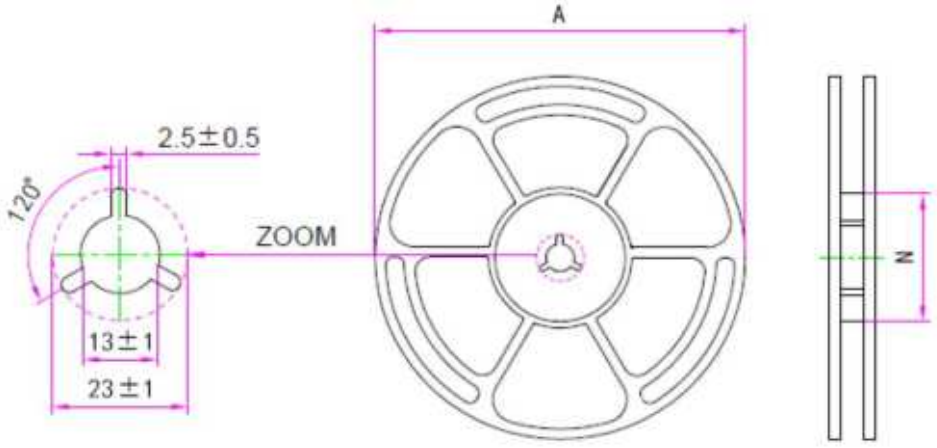
## ELECTRICAL SPECIFICATION CHART

**Packing**

**T: 250pcs / reel**




| W | P | T |
|---|---|---|
| 32 ±0.3 | 20 ±0.1 | 0.35 ±0.05 |




| A | N |
|---|---|
| 330 | 100 |

**Dimension: mm**

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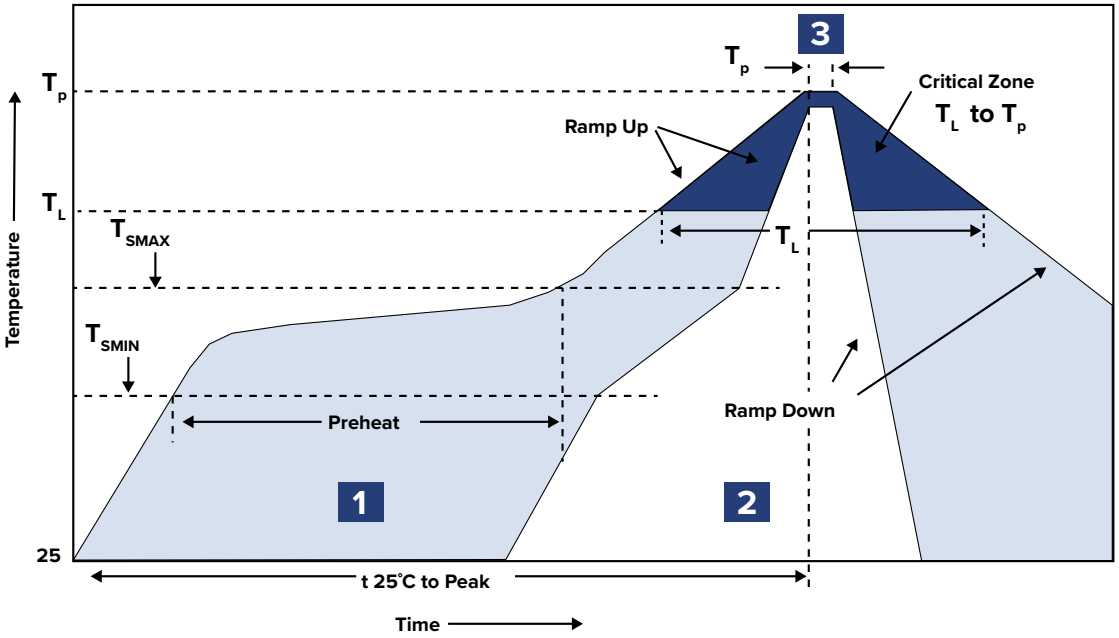
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## REFLOW PROFILE:




| Zone | Description | Temperature | Time |
|---|---|---|---|
| 1 | Preheat / Soak | $T_{SMAX}$ 150°C ~ 180°C | 60 ~ 120 sec. |
| 2 | Reflow | $T_L$ 230°C | 40 sec. |
| 3 | Peak heat | $T_P$ 250°C ±5°C | 10 sec. MAX |

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