

Low Profile Shielded SMD Chip Power Inductor



2.4 x 2.4 x 1.0mm

ASPI-2410 series



RoHS
Compliant

FEATURES:

- Small size and low profile: 1.0mm
- 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:

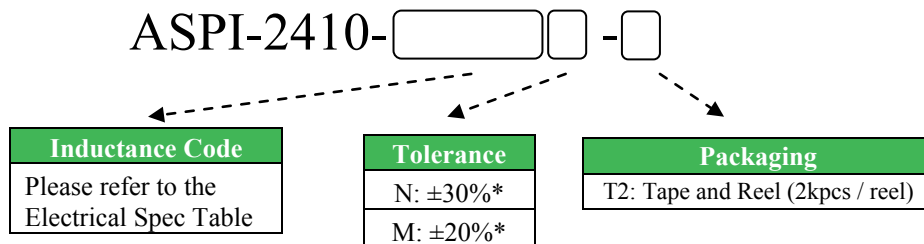
| | |
|------------------------------------|---|
| Abracon P/N: | ASPI-2510 Series |
| Operating Temperature & Humidity : | -25°C to +120°C (Including self generated heat) |
| Storage Temperature & Humidity: | -10°C to +40°C, 30% to 70% RH |

| 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-2410-R68 | 0.68 | N | 60 | ±30% | 2.60 | 2.50 |
| ASPI-2410-1R0 | 1.0 | N | 70 | | 2.00 | 1.90 |
| ASPI-2410-1R5 | 1.5 | M | 110 | ±20% | 1.75 | 1.70 |
| ASPI-2410-2R2 | 2.2 | M | 140 | | 1.30 | 1.20 |
| ASPI-2410-3R3 | 3.3 | M | 220 | | 1.05 | 1.00 |
| ASPI-2410-4R7 | 4.7 | M | 290 | | 0.92 | 0.90 |
| ASPI-2410-6R8 | 6.8 | M | 410 | | 0.75 | 0.65 |
| ASPI-2410-100 | 10.0 | M | 690 | | 0.60 | 0.55 |
| ASPI-2410-150 | 15.0 | M | 1020 | | 0.50 | 0.45 |
| ASPI-2410-220 | 22.0 | M | 1470 | | 0.40 | 0.40 |

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



*N for L = 0.68 and 1μH, M for L = 1.5 ~ 22μH

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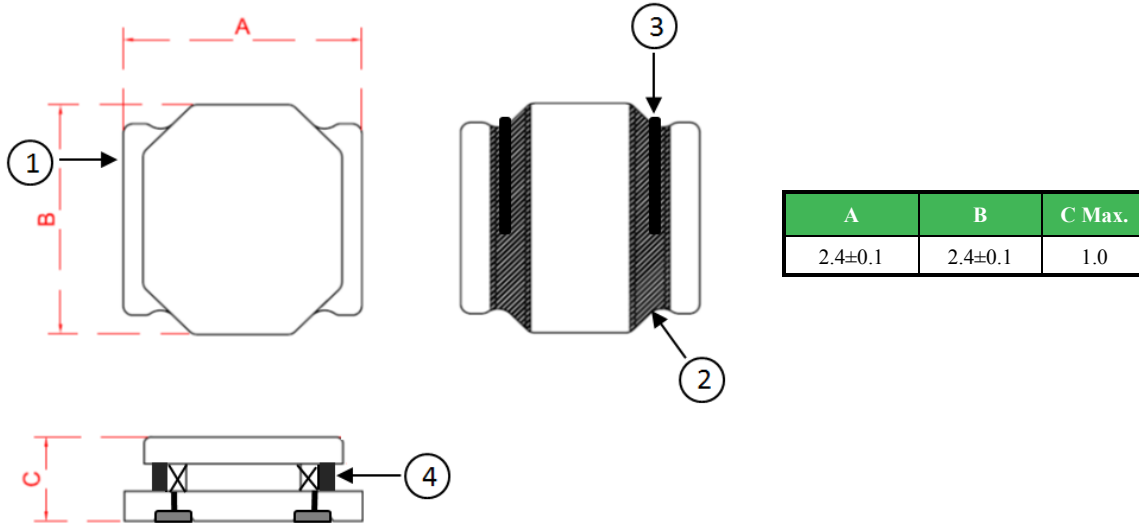
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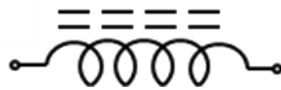
2.4 x 2.4 x 1.0mm

OUTLINE DRAWING:

Mechanical Dimensions

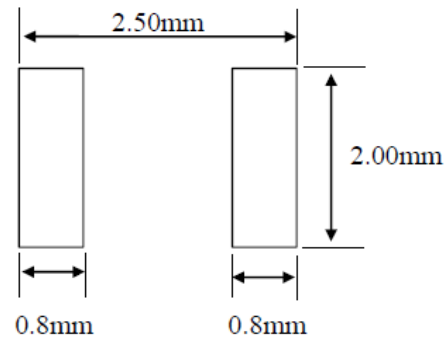


Circuit Schematic



No Polarity

Recommended Land Pattern



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 |

Dimension: mm

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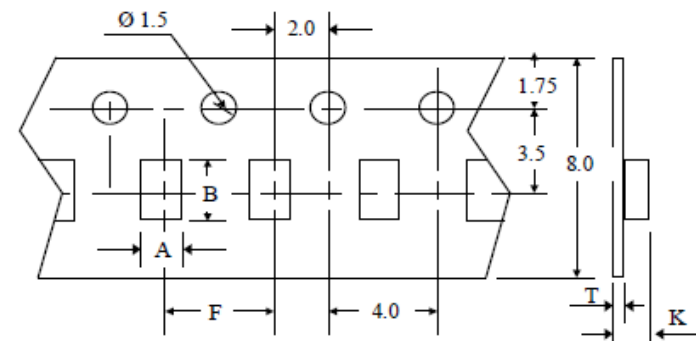
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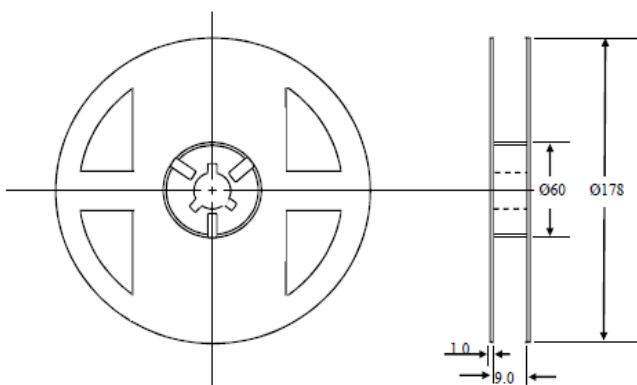
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TAPE & REEL:

T: 2,000pcs / reel

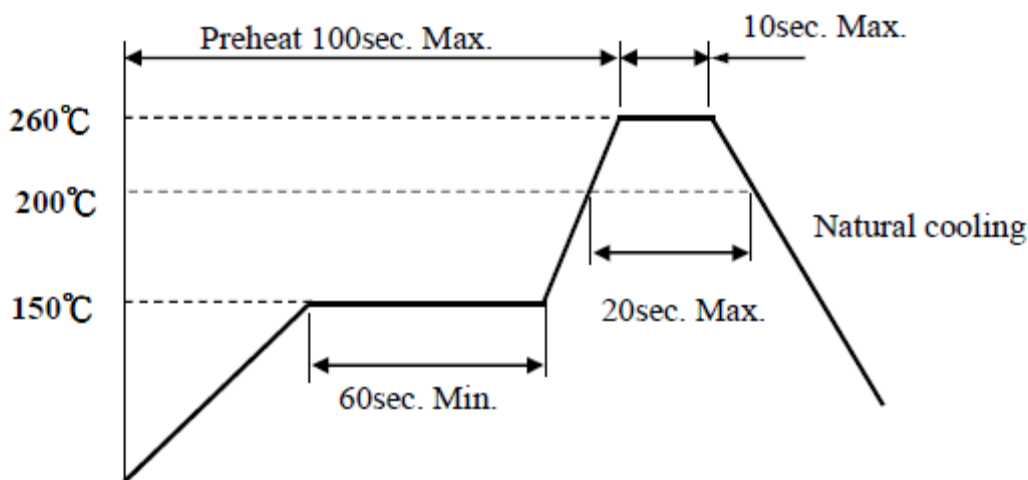


| | |
|---|------|
| A | 2.65 |
| B | 2.65 |
| K | 1.25 |
| F | 4 |
| T | 0.25 |



Dimension: mm

REFLOW PROFILE:



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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