

Molding Type Power Inductor

ASPI-1040HI



RoHS
Compliant



11.15 x 10.0 x 4.0 mm

FEATURES:

- High saturation current.
- Low loss due to low DC resistance.
- Frequency application up to 3MHz.
- Low profile with max thickness 4.0mm.
- 100% lead free and metted RoHS standard.
- Suitable for reflow soldering.
- High reliable SMD package

APPLICATIONS:

- DC/DC converters in Notebook, Netbook, desktop and server
- Low profile, high current power supplies.

STANDARD SPECIFICATIONS

| | |
|-----------------------------------|-------------------------------------------------|
| Abrakon P/N: | ASPI-1040HI Series |
| Operating Temperature & Humidity: | -55°C to +125°C (Including self generated heat) |
| Storage Temperature & Humidity: | +25°C to +35°C, 45% to 85% RH |

| Part Number | Inductance | Tolerance | DCR Typ | DCR Max | Saturation Current | Temperature Rise Current |
|-----------------|------------|-----------|---------|---------|--------------------|--------------------------|
| Units | μH | % | mΩ | mΩ | A | A |
| Symbol | L | M | | | Isat* | Irms* |
| ASPI-1040HI-R16 | 0.16 | M | 0.50 | 0.65 | 75.0 | 40.0 |
| ASPI-1040HI-R22 | 0.22 | M | 0.88 | 0.96 | 68.0 | 35.0 |
| ASPI-1040HI-R47 | 0.47 | M | 1.55 | 1.70 | 40.0 | 30.0 |
| ASPI-1040HI-1R0 | 1.00 | M | 3.00 | 3.30 | 28.0 | 18.0 |
| ASPI-1040HI-4R7 | 4.70 | M | 17.00 | 20.20 | 15.0 | 8.5 |
| ASPI-1040HI-100 | 10.00 | M | 27.00 | 30.00 | 8.5 | 7.5 |

Test Conditions

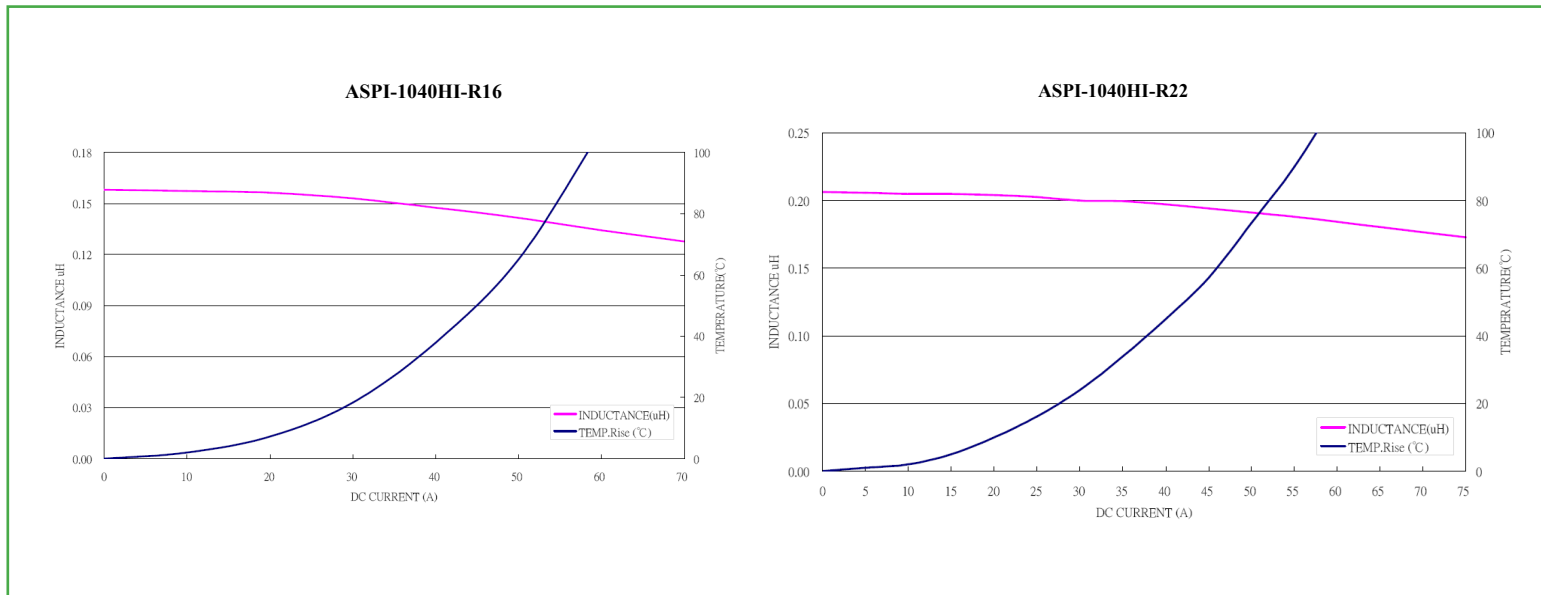
Inductance is measured in HP-4284A Precision LCR Meter.

RDC is measured in HP-4338B milli ohm meter.(or equivalent).

. Isat: Based on inductance change ($\Delta L/L_o : \leq -20\%$)

. Irms: Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)

ELECTRICAL CHARACTERISTIC CURVES



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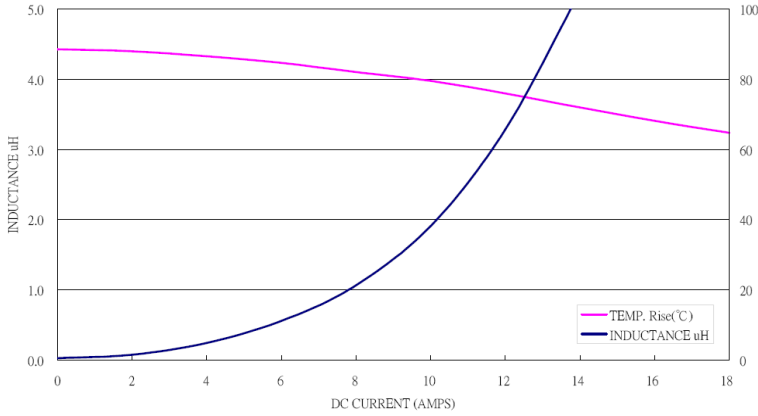
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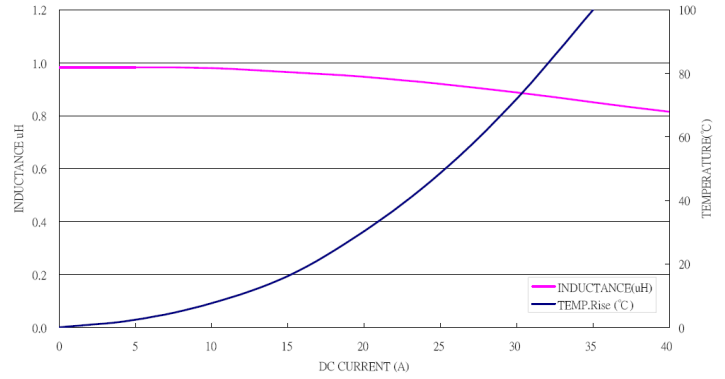
11.15 x 10.0 x 4.0 mm

ELECTRICAL CHARACTERISTIC CURVES

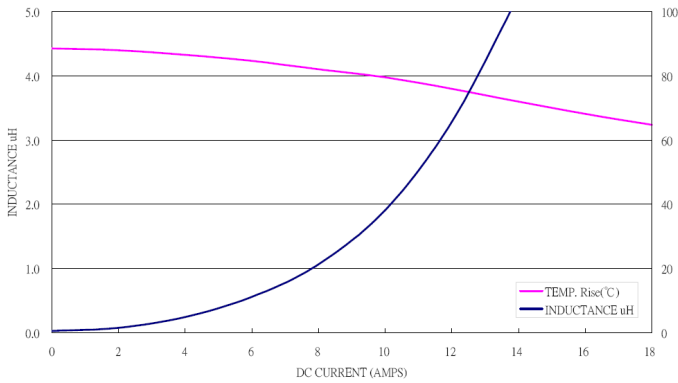
ASPI-1040HI-R47



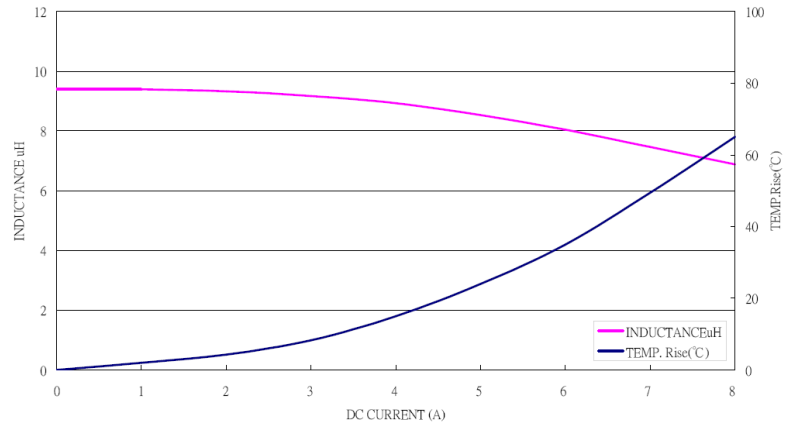
ASPI-1040HI-1R0



ASPI-0630HI-4R7



ASPI-1040HI-100



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PART NUMBER IDENTIFICATION

ASPI-1040HI- -

Inductance Code

Please refer to the
Electrical Spec Table

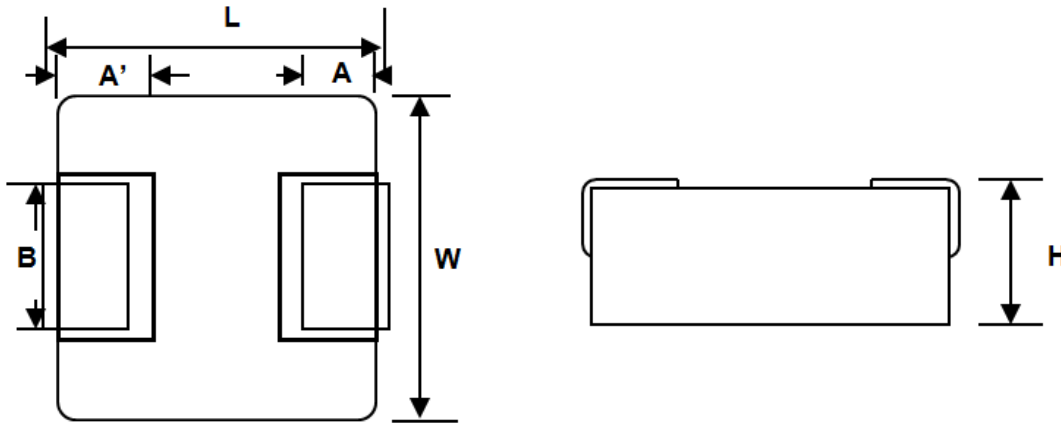
Tolerance

M: $\pm 20\%$

Packaging

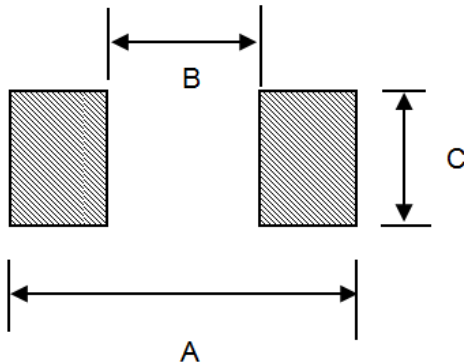
T05: Tape and Reel (500pcs /
reel)

OUTLINE DRAWING:



| A | A' | B | L | W | H |
|---------------|---------------|---------------|------------------|--------------|--------------------------------|
| 2.0 \pm 0.5 | 2.5 \pm 0.1 | 3.0 \pm 0.5 | 11.15 \pm 0.35 | 10 \pm 0.3 | 4 max (4.0 \pm 0.25 for R16) |

Recommended Land Pattern



| A | B | C |
|------|-----|-----|
| 13.6 | 5.4 | 4.1 |

Dimension: mm



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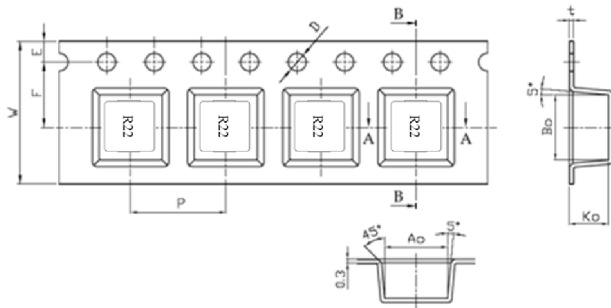
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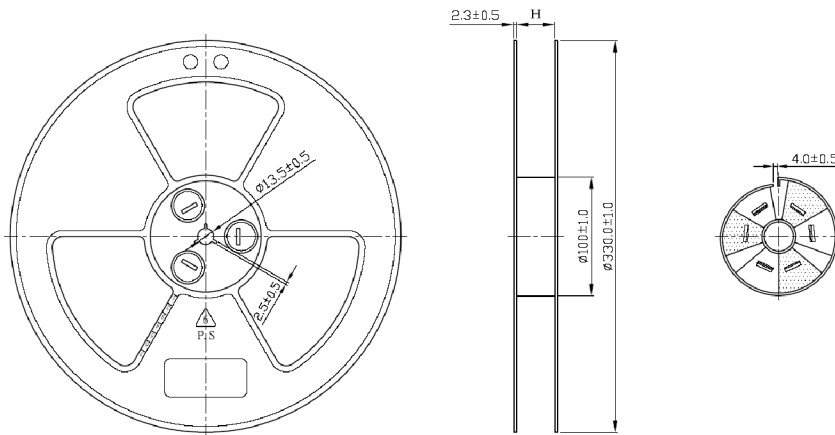
11.15 x 10.0 x 4.0 mm

TAPE & REEL:

T05: 500pcs / reel

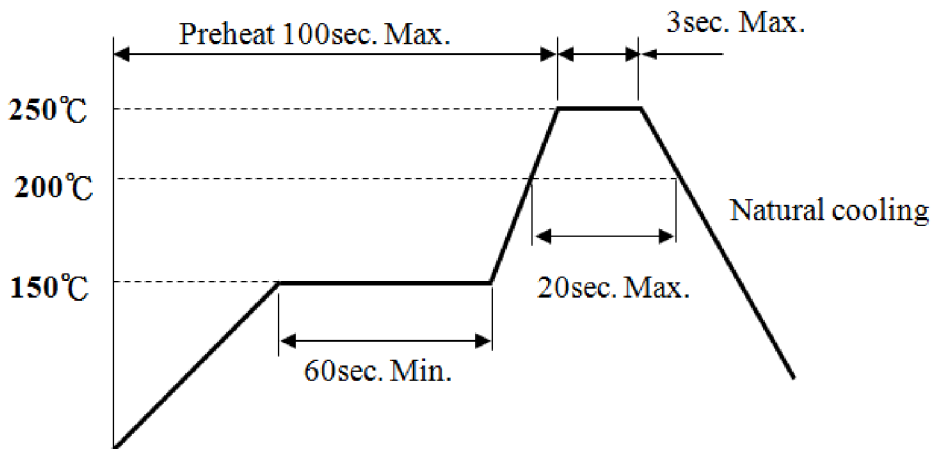


| | |
|----|------|
| A0 | 10.5 |
| B0 | 11.5 |
| K0 | 4.2 |
| P | 16.0 |
| t | 0.5 |
| W | 24 |
| E | 1.75 |
| F | 11.5 |
| D | 1.5 |



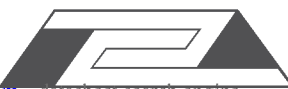
Dimension: mm

REFLOW PROFILE:



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