



**THE DATASHEET OF
AISC-0402HP-2N2B-T**

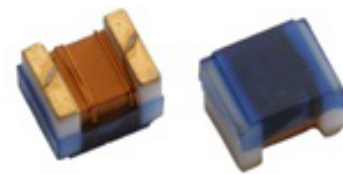


HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0402HP



RoHS/RoHS II Compliant



1.00 x 0.55 x 0.50mm

FEATURES:

- Higher Q and lower DCR than other 0402 inductors
- Very high SRF – as high as 8.5 GHz
- Excellent current handling capability – up to 2100mA
- Wide range of Inductance values available for flexible needs
- Tight tolerance of 2% is available.

APPLICATIONS:

- Widely used in communications applications such as cell phones, cable modems, ADSL, repeaters.
- Bluetooth, W-LAN, GPS, Broadband Network
- Video cameras, liquid crystal television, and other electronic devices
- Suitable for RF circuit

ELECTRICAL SPECIFICATIONS:

PARAMETERS

| | |
|------------------------|--------------------------------|
| ABRACON P/N: | AISC-0402HP Series |
| Operating temperature: | -40°C to +125°C in Tape & Reel |
| Storage temperature: | -10°C to +40°C, 20% to 70% RH |

| Part Number AISC-0402HP- Inductance Code | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Max. DC Resistance | Max. Rated Current | Min. Self-resonant Frequency |
|------------------------------------------------|------------|-----------|---------------------------|-------------------|-----------------------|-----------------------|---------------------------------|
| Units | nH | - | - | MHz | Ω | mA | MHz |
| Symbol | L | - | Q | Freq. | DCR | I _r | S.R.F |
| AISC-0402HP-2N0 | 2.0 | B, S | 22 | 250 | 0.038 | 2100 | 8500 |
| AISC-0402HP-2N2 | 2.2 | B, S | 22 | 250 | 0.038 | 2100 | 8500 |
| AISC-0402HP-2N7 | 2.7 | B, S | 22 | 250 | 0.056 | 1500 | 8500 |
| AISC-0402HP-3N3 | 3.3 | K, J, B | 23 | 250 | 0.045 | 1700 | 8500 |
| AISC-0402HP-3N6 | 3.6 | K, J, B | 23 | 250 | 0.045 | 1700 | 8500 |
| AISC-0402HP-3N9 | 3.9 | K, J, B | 23 | 250 | 0.045 | 1700 | 8500 |
| AISC-0402HP-4N3 | 4.3 | K, J, B | 22 | 250 | 0.055 | 1500 | 7150 |
| AISC-0402HP-4N7 | 4.7 | K, J, B | 20 | 250 | 0.075 | 1400 | 6850 |
| AISC-0402HP-5N1 | 5.1 | K, J, B | 23 | 250 | 0.085 | 1300 | 6800 |
| AISC-0402HP-5N6 | 5.6 | K, J, B | 23 | 250 | 0.055 | 1500 | 6500 |
| AISC-0402HP-6N2 | 6.2 | K, J, B | 25 | 250 | 0.065 | 1400 | 5800 |
| AISC-0402HP-6N8 | 6.8 | K, J, B | 25 | 250 | 0.065 | 1400 | 5800 |
| AISC-0402HP-7N5 | 7.5 | K, J, B | 25 | 250 | 0.080 | 1400 | 5400 |
| AISC-0402HP-8N2 | 8.2 | K, J, B | 25 | 250 | 0.085 | 1300 | 5400 |
| AISC-0402HP-8N7 | 8.7 | K, J, B | 25 | 250 | 0.085 | 1300 | 5000 |
| AISC-0402HP-9N0 | 9.0 | K, J, B | 25 | 250 | 0.085 | 1300 | 5000 |
| AISC-0402HP-9N5 | 9.5 | K, J, B | 25 | 250 | 0.095 | 1200 | 4700 |
| AISC-0402HP-10N | 10 | K, J, G | 25 | 250 | 0.085 | 1300 | 4700 |
| AISC-0402HP-11N | 11 | K, J, G | 25 | 250 | 0.090 | 1300 | 4700 |
| AISC-0402HP-12N | 12 | K, J, G | 26 | 250 | 0.090 | 1100 | 4400 |
| AISC-0402HP-13N | 13 | K, J, G | 25 | 250 | 0.140 | 900 | 4200 |
| AISC-0402HP-15N | 15 | K, J, G | 26 | 250 | 0.130 | 1000 | 3900 |
| AISC-0402HP-16N | 16 | K, J, G | 26 | 250 | 0.130 | 850 | 3700 |
| AISC-0402HP-18N | 18 | K, J, G | 26 | 250 | 0.140 | 850 | 3550 |
| AISC-0402HP-19N | 19 | K, J, G | 26 | 250 | 0.145 | 850 | 3500 |
| AISC-0402HP-20N | 20 | K, J, G | 26 | 250 | 0.155 | 800 | 3500 |
| AISC-0402HP-21N | 21 | K, J, G | 26 | 250 | 0.160 | 800 | 3300 |
| AISC-0402HP-22N | 22 | K, J, G | 26 | 250 | 0.160 | 800 | 3300 |
| AISC-0402HP-23N | 23 | K, J, G | 26 | 250 | 0.190 | 700 | 3300 |
| AISC-0402HP-24N | 24 | K, J, G | 26 | 250 | 0.180 | 650 | 3150 |
| AISC-0402HP-25N | 25 | K, J, G | 25 | 250 | 0.180 | 650 | 3150 |
| AISC-0402HP-26N | 26 | K, J, G | 25 | 250 | 0.170 | 700 | 3150 |
| AISC-0402HP-27N | 27 | K, J, G | 26 | 250 | 0.220 | 600 | 3200 |
| AISC-0402HP-30N | 30 | K, J, G | 25 | 250 | 0.275 | 500 | 2900 |
| AISC-0402HP-33N | 33 | K, J, G | 25 | 250 | 0.320 | 490 | 2800 |
| AISC-0402HP-36N | 36 | K, J, G | 26 | 250 | 0.360 | 480 | 2800 |

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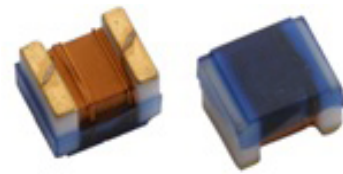
Revised: 04.06.13

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AISC-0402HP



RoHS/RoHS II Compliant



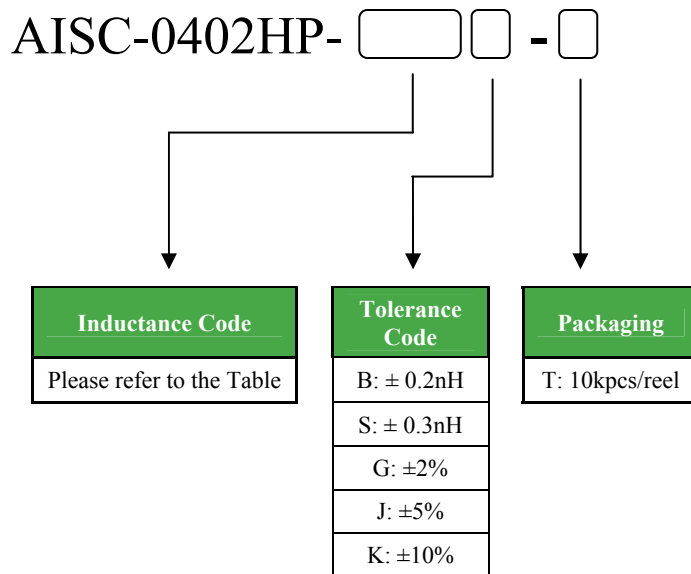
1.00 x 0.55 x 0.50mm

| Part Number AISC-0402HP- Inductance Code | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Max. DC Resistance | Max. Rated Current | Min. Self-resonant Frequency |
|------------------------------------------------|------------|-----------|---------------------------|-------------------|-----------------------|-----------------------|---------------------------------|
| Units | nH | - | - | MHz | Ω | mA | MHz |
| Symbol | L | - | Q | Freq. | DCR | Ir | S.R.F |
| AISC-0402HP-37N | 37 | K, J, G | 25 | 250 | 0.430 | 470 | 2700 |
| AISC-0402HP-39N | 39 | K, J, G | 25 | 250 | 0.430 | 450 | 2600 |
| AISC-0402HP-40N | 40 | K, J, G | 26 | 250 | 0.430 | 450 | 2600 |
| AISC-0402HP-43N | 43 | K, J, G | 26 | 250 | 0.500 | 450 | 2500 |
| AISC-0402HP-47N | 47 | K, J, G | 22 | 200 | 0.550 | 420 | 2400 |
| AISC-0402HP-51N | 51 | K, J | 22 | 200 | 0.750 | 360 | 2300 |
| AISC-0402HP-56N | 56 | K, J | 22 | 200 | 0.850 | 330 | 2070 |
| AISC-0402HP-68N | 68 | K, J | 22 | 200 | 0.950 | 320 | 1840 |

Test Conditions

1. Inductance is measured in HP-4287A RF LCR meter with HP-16193 fixture.
2. SRF is measured in ENA E5071B network analyzer
3. RDC is measured in HP-4338B milliohmeter.
4. Definition of Rated Current (Ir): Ir is direct electric current as chip surface temperature rose just 25°C against chip initial surface temperature (Ta)

PART NUMBER IDENTIFICATION

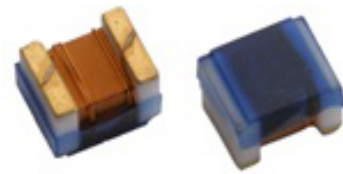


HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0402HP

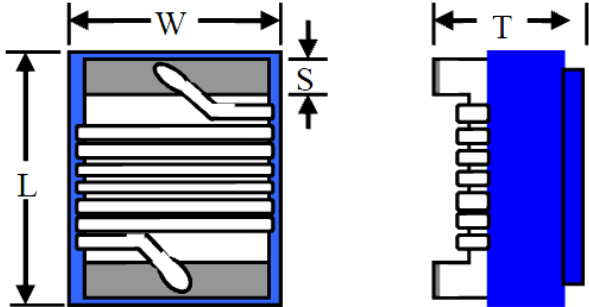


RoHS/RoHS II Compliant



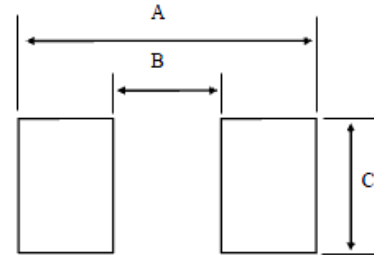
1.00 x 0.55 x 0.50mm

OUTLINE DIMENSIONS



| L | W | T | S |
|-------------|-------------|-------------|-------------|
| 1.00 ± 0.10 | 0.55 ± 0.10 | 0.50 ± 0.10 | 0.20 ± 0.10 |

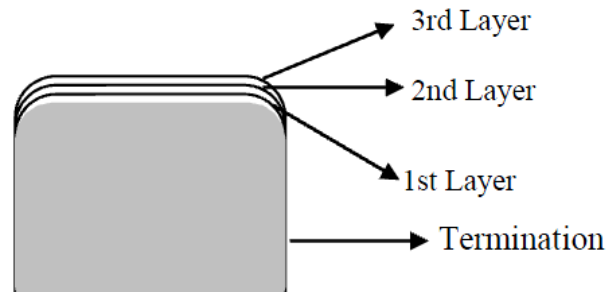
Recommended Land Pattern



| A | B | C |
|------|------|------|
| 1.20 | 0.45 | 0.65 |

Dimension: mm

ELECTRODE MATERIALS



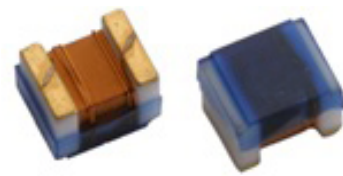
| Components | Material |
|-----------------------|----------|
| 1 st Layer | Mo/Mn |
| 2 nd Layer | Nickel |
| 3 rd Layer | Au |

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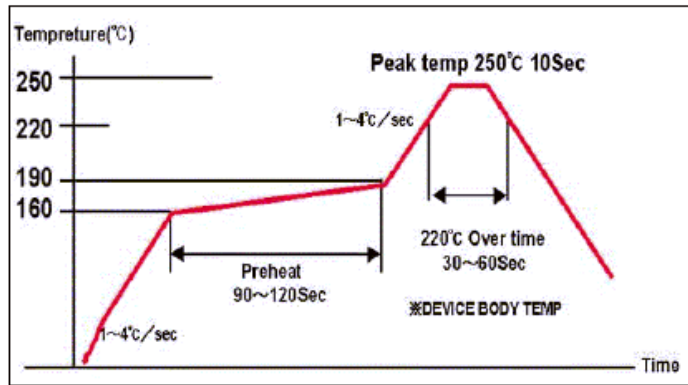


RoHS/RoHS II Compliant



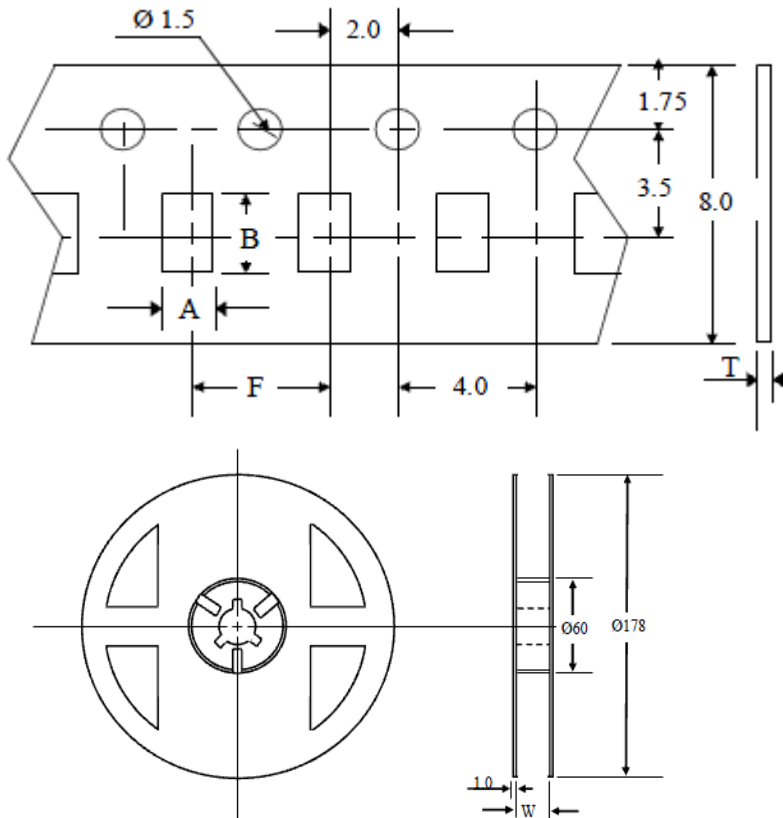
1.00 x 0.55 x 0.50mm

REFLOW PROFILE



TAPE & REEL:

T= tape and reel (10,000pcs/reel)



| A | B | F | T | W |
|------|------|------|------|------|
| 0.70 | 1.20 | 2.00 | 0.70 | 8.00 |

Dimension: mm

Storage period

Use the product within 12 months after delivered. Solderability should be checked if this period is exceeded.

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