



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0603HP



RoHS/RoHS II Compliant



1.80 x 1.12 x 1.02mm

FEATURES:

- Higher Q and lower DCR than other 0603 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-0603HP Series |
| Operating temperature: | -40°C to +125°C |
| Storage temperature: | -10°C to +40°C, 20% to 70% RH in Tape & Reel |

| Part Number AISC-0603HP- Inductance Code | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Typ. Quality Factor @ 250MHz /900MHz | 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-0603HP-1N7 | 1.7 | B, S | 24 | 250 | 31/50 | 0.033 | 2100 | 8500 |
| AISC-0603HP-2N2 | 2.2 | B, S | 13 | 250 | 15/27 | 0.150 | 900 | 7000 |
| AISC-0603HP-3N3 | 3.3 | B, S | 35 | 250 | 37/64 | 0.035 | 1700 | 6900 |
| AISC-0603HP-3N6 | 3.6 | B, S | 35 | 250 | 42/67 | 0.035 | 1700 | 6900 |
| AISC-0603HP-3N9 | 3.9 | B, S | 30 | 250 | 39/62 | 0.039 | 1600 | 6900 |
| AISC-0603HP-4N3 | 4.3 | B, S | 30 | 250 | 40/64 | 0.045 | 1500 | 6000 |
| AISC-0603HP-4N7 | 4.7 | B, S | 22 | 250 | 29/50 | 0.090 | 1100 | 5800 |
| AISC-0603HP-5N1 | 5.1 | B, J, K | 20 | 250 | 27/46 | 0.108 | 1000 | 5700 |
| AISC-0603HP-6N2 | 6.2 | B, J, K | 35 | 250 | 44/68 | 0.050 | 1400 | 5800 |
| AISC-0603HP-6N8 | 6.8 | B, J, K | 35 | 250 | 50/79 | 0.050 | 1400 | 5800 |
| AISC-0603HP-7N2 | 7.2 | B, J, K | 35 | 250 | 47/71 | 0.052 | 1400 | 4800 |
| AISC-0603HP-7N5 | 7.5 | B, J, K | 35 | 250 | 46/74 | 0.070 | 1300 | 4800 |
| AISC-0603HP-8N2 | 8.2 | B, J, K | 35 | 250 | 45/69 | 0.054 | 1400 | 4300 |
| AISC-0603HP-8N7 | 8.7 | B, J, K | 30 | 250 | 38/61 | 0.100 | 1000 | 4600 |
| AISC-0603HP-9N1 | 9.1 | J, K | 28 | 250 | 35/57 | 0.108 | 1000 | 4300 |
| AISC-0603HP-9N5 | 9.5 | J, K | 35 | 250 | 50/76 | 0.060 | 1350 | 5000 |
| AISC-0603HP-10N | 10 | G, J, K | 35 | 250 | 50/82 | 0.060 | 1350 | 4800 |
| AISC-0603HP-11N | 11 | G, J, K | 35 | 250 | 54/82 | 0.060 | 1350 | 4200 |
| AISC-0603HP-12N | 12 | G, J, K | 35 | 250 | 52/80 | 0.078 | 1200 | 4000 |
| AISC-0603HP-15N | 15 | G, J, K | 38 | 250 | 54/83 | 0.085 | 1100 | 4000 |
| AISC-0603HP-16N | 16 | G, J, K | 38 | 250 | 53/78 | 0.085 | 1100 | 3300 |
| AISC-0603HP-18N | 18 | G, J, K | 38 | 250 | 51/71 | 0.078 | 1200 | 3100 |
| AISC-0603HP-22N | 22 | G, J, K | 40 | 250 | 55/75 | 0.120 | 950 | 3000 |
| AISC-0603HP-23N | 23 | G, J, K | 40 | 250 | 55/75 | 0.120 | 950 | 2850 |
| AISC-0603HP-24N | 24 | G, J, K | 40 | 250 | 50/66 | 0.080 | 1100 | 2650 |
| AISC-0603HP-27N | 27 | J, K | 40 | 250 | 53/68 | 0.125 | 950 | 2800 |
| AISC-0603HP-30N | 30 | G, J, K | 40 | 250 | 55/66 | 0.130 | 920 | 2400 |
| AISC-0603HP-33N | 33 | G, J, K | 40 | 250 | 51/55 | 0.170 | 680 | 2300 |
| AISC-0603HP-36N | 36 | G, J, K | 40 | 250 | 55/63 | 0.150 | 750 | 2300 |
| AISC-0603HP-39N | 39 | G, J, K | 40 | 250 | 55/58 | 0.180 | 680 | 2200 |
| AISC-0603HP-43N | 43 | G, J, K | 40 | 250 | 52/53 | 0.170 | 810 | 2100 |
| AISC-0603HP-47N | 47 | G, J, K | 38 | 200 | 51/50 | 0.200 | 680 | 2000 |
| AISC-0603HP-51N | 51 | G, J, K | 38 | 200 | 50/46 | 0.250 | 660 | 1900 |
| AISC-0603HP-56N | 56 | G, J, K | 38 | 200 | 53/46 | 0.230 | 700 | 1900 |
| AISC-0603HP-68N | 68 | G, J, K | 38 | 200 | 50/39 | 0.280 | 650 | 1700 |
| AISC-0603HP-72N | 72 | G, J, K | 34 | 150 | 50/38 | 0.350 | 580 | 1700 |

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Revised: 04.06.13

HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0603HP



RoHS/RoHS II Compliant



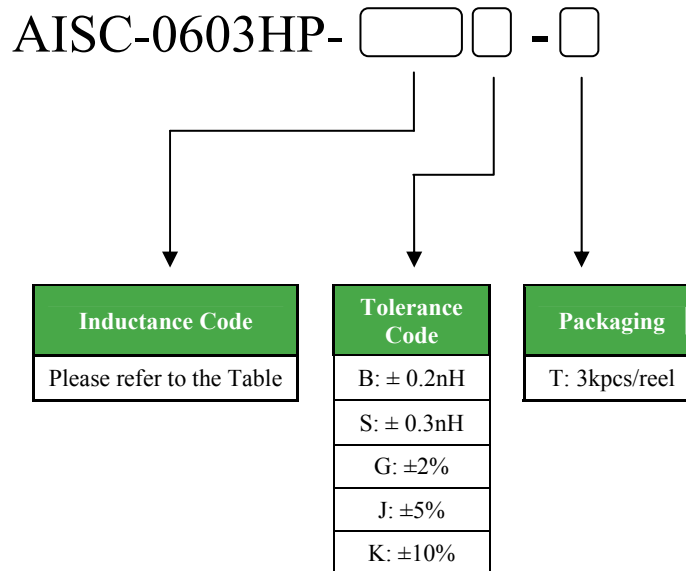
1.80 x 1.12 x 1.02mm

| Part Number AISC-0603HP- Inductance Code | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Typ. Quality Factor @ 250MHz /900MHz | 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-0603HP-75N | 75 | G, J, K | 34 | 150 | 46/35 | 0.42 | 550 | 1700 |
| AISC-0603HP-82N | 82 | G, J, K | 34 | 150 | 51/36 | 0.46 | 510 | 1600 |
| AISC-0603HP-91N | 91 | G, J, K | 34 | 150 | 48/33 | 0.42 | 550 | 1500 |
| AISC-0603HP-R10 | 100 | G, J, K | 34 | 150 | 52/32 | 0.54 | 470 | 1400 |
| AISC-0603HP-R11 | 110 | G, J, K | 33 | 150 | 46/29 | 0.54 | 470 | 1350 |
| AISC-0603HP-R12 | 120 | G, J, K | 33 | 150 | 50/33 | 0.65 | 420 | 1300 |
| AISC-0603HP-R15 | 150 | G, J, K | 30 | 150 | 46/22 | 0.82 | 390 | 1150 |
| AISC-0603HP-R18 | 180 | G, J, K | 28 | 100 | 48/20 | 1.2 | 320 | 1050 |
| AISC-0603HP-R20 | 200 | G, J, K | 28 | 100 | 45/10 | 1.3 | 310 | 1000 |
| AISC-0603HP-R21 | 210 | G, J, K | 28 | 100 | 48/12 | 1.9 | 280 | 1000 |
| AISC-0603HP-R22 | 220 | G, J, K | 28 | 100 | 47/16 | 1.9 | 280 | 950 |
| AISC-0603HP-R25 | 250 | G, J, K | 28 | 100 | 46/- | 2.0 | 260 | 900 |
| AISC-0603HP-R27 | 270 | G, J, K | 28 | 100 | 48/- | 2.2 | 260 | 900 |
| AISC-0603HP-R30 | 300 | G, J, K | 28 | 100 | 44/- | 2.7 | 220 | 780 |
| AISC-0603HP-R33 | 330 | G, J, K | 28 | 100 | 43/- | 2.9 | 200 | 750 |
| AISC-0603HP-R36 | 360 | G, J, K | 28 | 100 | 45/- | 3.8 | 180 | 720 |
| AISC-0603HP-R39 | 390 | G, J, K | 28 | 100 | 43/- | 3.8 | 180 | 700 |

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 (I_r): I_r is direct electric current as chip surface temperature rose just 25oC against chip initial surface temperature (T_a)

PART NUMBER IDENTIFICATION



HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0603HP

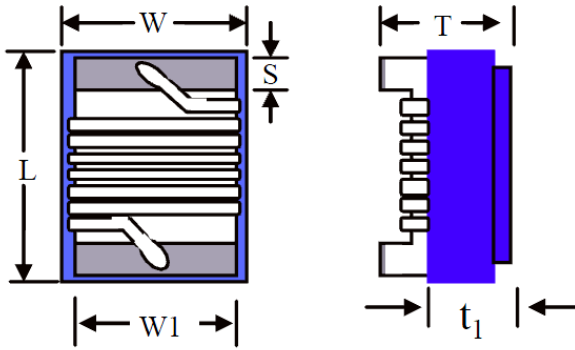


RoHS/RoHS II Compliant

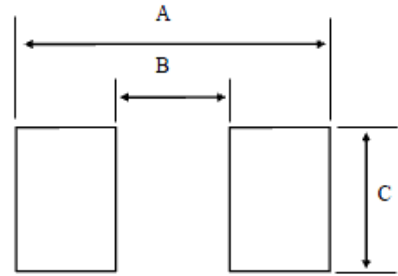


1.80 x 1.12 x 1.02mm

OUTLINE DIMENSIONS



Recommended Land Pattern

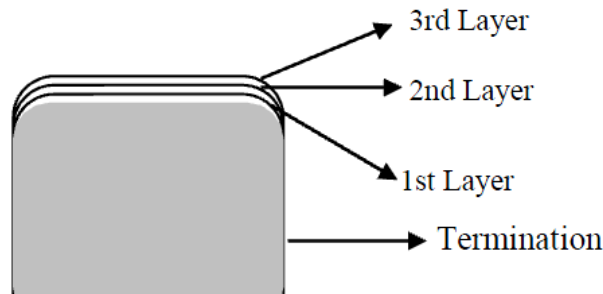


| L | W | T | S | W1 | t ₁ |
|----------|----------|----------|-------------|----------|----------------|
| 1.80 max | 1.12 max | 1.02 max | 0.36 ± 0.10 | 0.76 ref | 0.50 ref |

| A | B | C |
|------|------|------|
| 1.92 | 0.64 | 1.27 |

Dimension: mm

ELECTRODE MATERIALS



| Components | Material |
|-----------------------|----------|
| 1 st Layer | Ag/Pd |
| 2 nd Layer | Nickel |
| 3 rd Layer | Tin |

HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-0603HP

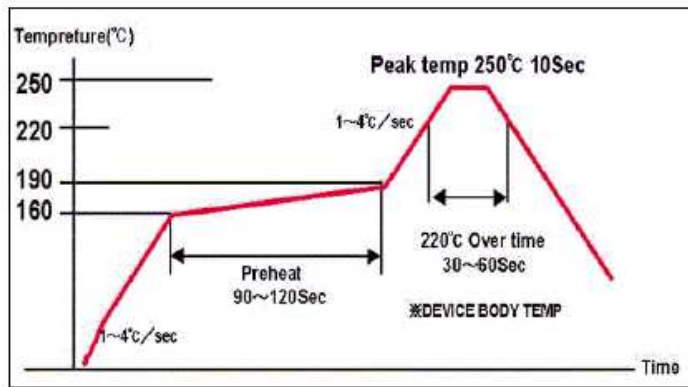


RoHS/RoHS II Compliant



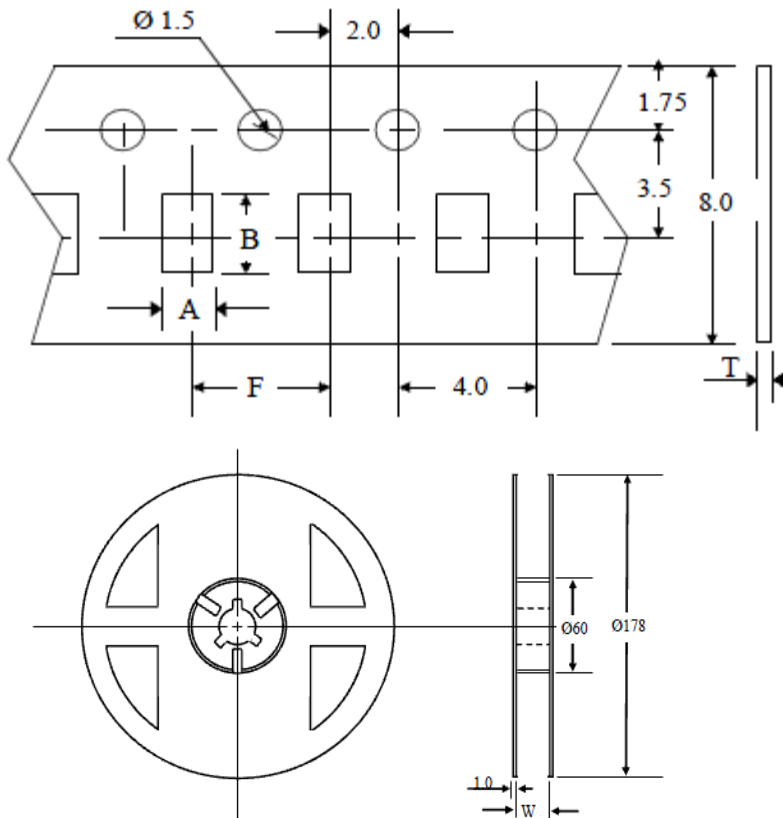
1.80 x 1.12 x 1.02mm

REFLOW PROFILE



TAPE & REEL:

T= tape and reel (3,000pcs/reel)



| A | B | F | K | T | W |
|------|------|------|------|------|------|
| 1.15 | 1.80 | 4.00 | 0.95 | 0.20 | 8.00 |

Dimension: mm

Storage period

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

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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Revised: 04.06.13