# HIGH Q CERAMIC WIRE WOUND INDUCTORS

## AISC-1008HQ

RoHS/RoHS II Compliant



2.60 x 2.10 x 1.70mm

## FEATURES:

- Higher Q and lower DCR than other 1008 inductors
- Very high SRF – as high as 8.1 GHz
- Excellent current handling capability – up to 1600mA
- 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-1008 HQSeries |
| Operating temperature: | -40°C to + 125°C |
| Storage temperature: | -10ºC to +40ºC, 20% to 70% RH in Tape & Reel |

| Part Number AISC-1008HQ- 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-1008HQ-3N0 | 3.0 | J, K | 70 | 50/1500 | 0.04 | 1600 | 8100 |
| AISC-1008HQ-7N8 | 7.8 | J, K | 75 | 50/1500 | 0.05 | 1600 | 3800 |
| AISC-1008HQ-10N | 10 | J, K | 60 | 50/500 | 0.08 | 1300 | 3600 |
| AISC-1008HQ-12N | 12 | G, J, K | 70 | 50/500 | 0.06 | 1500 | 2800 |
| AISC-1008HQ-18N | 18 | G, J, K | 62 | 50/350 | 0.08 | 1400 | 2700 |
| AISC-1008HQ-22N | 22 | G, J, K | 62 | 50/350 | 0.07 | 1400 | 2050 |
| AISC-1008HQ-33N | 33 | G, J, K | 75 | 50/350 | 0.09 | 1300 | 1700 |
| AISC-1008HQ-39N | 39 | G, J, K | 75 | 50/350 | 0.09 | 1300 | 1300 |
| AISC-1008HQ-47N | 47 | G, J, K | 75 | 50/350 | 0.12 | 1200 | 1450 |
| AISC-1008HQ-56N | 56 | G, J, K | 75 | 50/350 | 0.12 | 1200 | 1230 |
| AISC-1008HQ-68N | 68 | G, J, K | 80 | 50/350 | 0.13 | 1000 | 1150 |
| AISC-1008HQ-82N | 82 | G, J, K | 80 | 50/350 | 0.16 | 1000 | 1060 |
| AISC-1008HQ-R10 | 100 | G, J, K | 62 | 50/350 | 0.16 | 1000 | 820 |

### 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 rise just 15°C against chip initial surface temperature (Ta)



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# HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

## AISC-1008HQ

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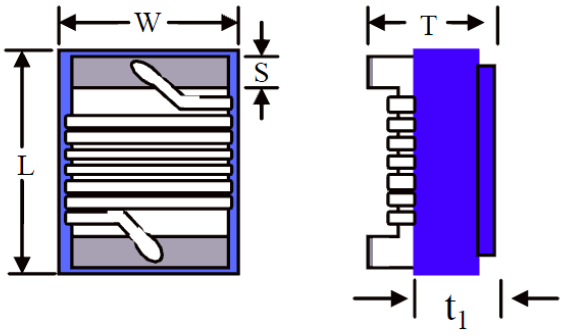
2.60 x 2.10 x 1.70mm

## PART NUMBER IDENTIFICATION

AISC-1008HQ - □□ - □

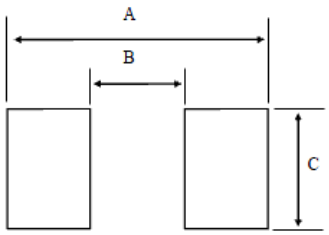
| Inductance Code | Tolerance Code | Packaging |
|---|---|---|
| Please refer to the Table | G: ±2% | T: 2kpcs/reel |
| | J: ±5% | |
| | K: ±10% | |

## OUTLINE DIMENSIONS




| L | W | T | S | $t_1$ |
|---|---|---|---|---|
| 2.60 ± 0.20 | 2.10 ± 0.20 | 1.70 ± 0.20 | 0.50 ± 0.10 | 0.70 ref |

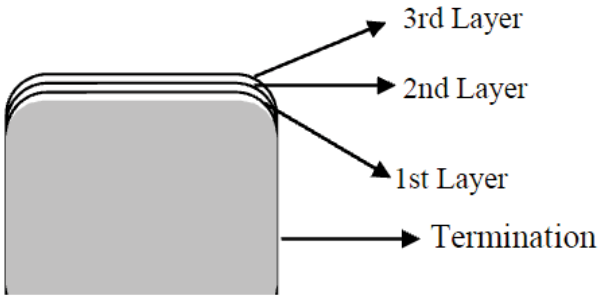
**Recommended Land Pattern**




| A | B | C |
|---|---|---|
| 3.00 | 1.20 | 2.20 |

**Dimension: mm**

## ELECTRODE MATERIALS




| Components | Material |
|---|---|
| 1st Layer | Mo/Mn or Ag |
| 2nd Layer | Nickel |
| 3rd Layer | Gold |




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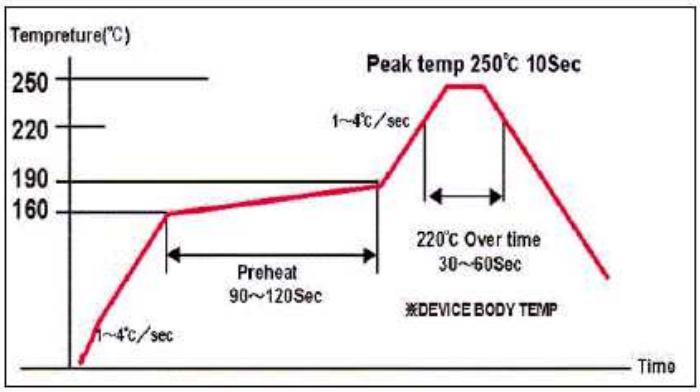
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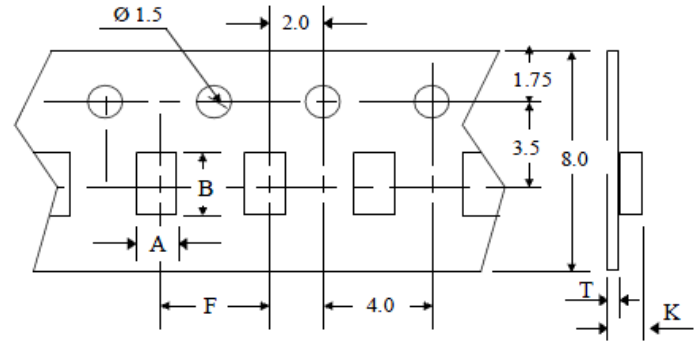
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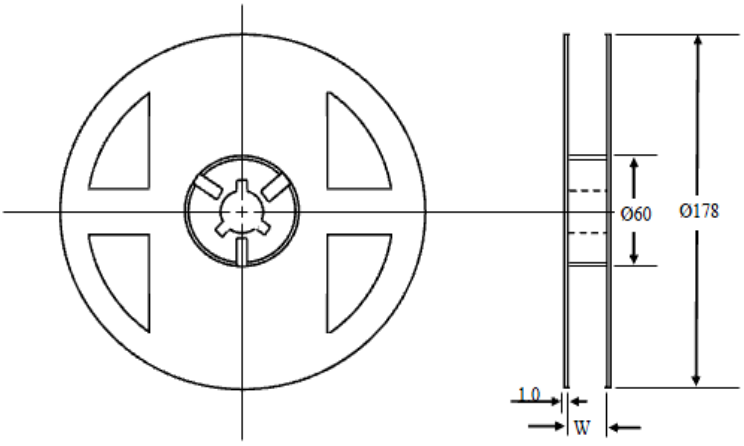
## REFLOW PROFILE




## TAPE & REEL:

**T= tape and reel (2,000pcs/reel)**




| A | B | F | K | T | W |
|---|---|---|---|---|---|
| 2.23 | 2.73 | 4.00 | 1.80 | 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.

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