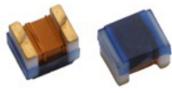
# HIGH Q CERAMIC WIRE WOUND INDUCTORS

AISC-1008HQ





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:   | -10°C to +40°C, 20% to 70% RH in Tape & Reel |  |  |  |  |

| Part Number<br>AISC-1008HQ-<br>Inductance Code | <b>Inductance</b> | <b>Tolerance</b> | Min.<br>Quality<br>Factor | L/Q Test<br>Freq. | Max. DC<br>Resistance | Max. Rated<br>Current | Min. Self-<br>resonant<br>Frequency |
|--|-------------------|------------------|---------------------------|-------------------|-----------------------|-----------------------|-------------------------------------|
| Units  | nН                | -                | -                         | MHz               | $\Omega$              | 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)



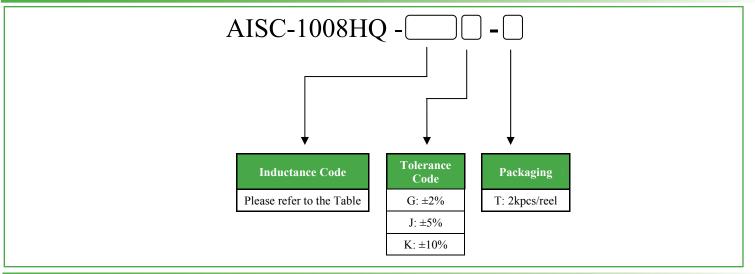
# HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

AISC-1008HQ

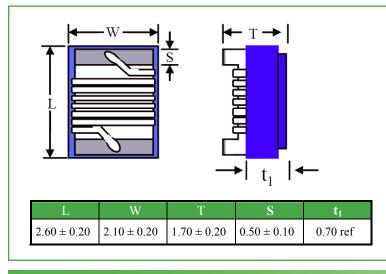




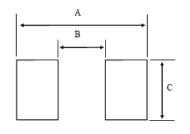




# **OUTLINE DIMENSIONS**



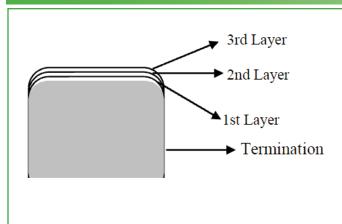
### **Recommended Land Pattern**



| A    | В    | C    |
|------|------|------|
| 3.00 | 1.20 | 2.20 |

**Dimension: mm** 

## **ELECTRODE MATERIALS**



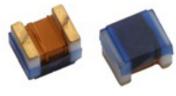
| Components            | Material    |
|-----------------------|-------------|
| 1 <sup>st</sup> Layer | Mo/Mn or Ag |
| 2 <sup>nd</sup> Layer | Nickel      |
| 3 <sup>rd</sup> Layer | Gold        |



# HIGH CURRENT CERAMIC WIRE WOUND INDUCTORS

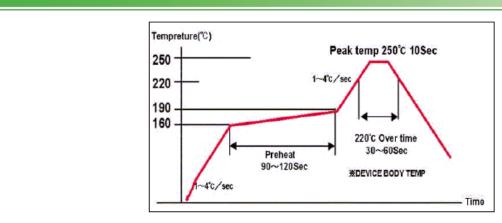
AISC-1008HQ



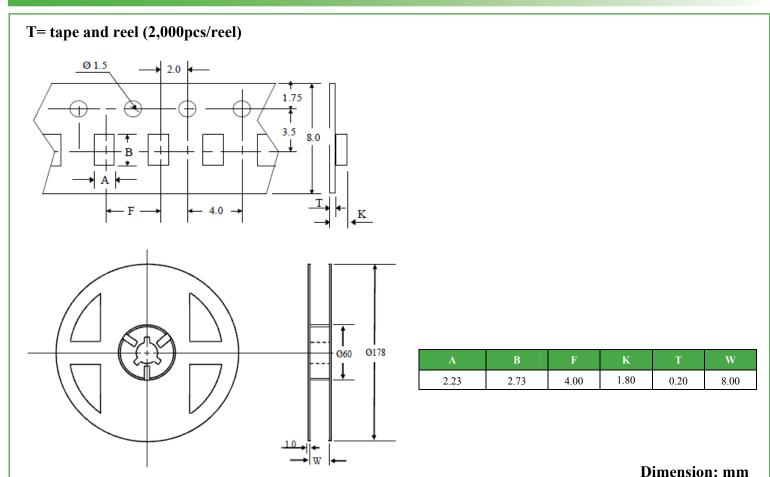


2.60 x 2.10 x 1.70mm

## **REFLOW PROFILE**



## **TAPE & REEL:**



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.



