# LOW PROFILE WIRELESS CHARGING COIL

## AWCCA-20R20H08-C01-B



20.0 mm x 20.0 mm x 1.0 mm

(Pb) RoHS/RoHS II Compliant MSL=1

#### **FEATURES**

- Wireless Charging Receiver Coil
- 12µH inductance
- Space saving 20.0mm diameter
- Low 1.0mm profile
- High permeability shielding to protect sensitive electronics
- Durable construction, industrial -25°C to 85°C operating temperature

#### **APPLICATIONS**

- Wearables and IoT
- **Smart Watches**
- **Medical Devices**
- Digital Cameras and Camcorders
- Consumer Electronics
- Portable Electronics
- Portable Audio
- Portable lighting

#### **MAXIMUM RATINGS**

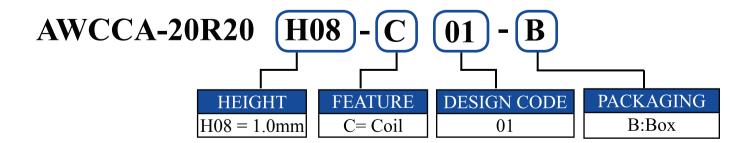
| Item                  | Value                             |
|-----------------------|-----------------------------------|
| Operating Temperature | $T=-25^{\circ}C \sim 85^{\circ}C$ |
| Range                 | RH≤ 90%.                          |
| Storage Temperature   | -25°C~85°C,                       |
| Range                 | 70%RH (Max.)                      |

#### **ELECTRICAL SPECIFICATIONS**

| Part Number          | Inductance                         | DC Resistance | Q         |  |  |
|----------------------|------------------------------------|---------------|-----------|--|--|
| AWCCA-20R20H08-C01-B | $12\mu H \pm 10\%$                 | 290mΩ±20%     | 20±30%    |  |  |
| Test Condition       | Condition 100KHz / 1V              |               | 100KHz/1V |  |  |
| Test Equipment       | Agilent E4980A or equivalent       |               |           |  |  |
|                      | Temperature: 20±10°C, RH: 65% ±20% |               |           |  |  |

**Test Conditions:** Ambient Temperature:  $20\pm10^{\circ}$ C, RH:  $65\%\pm20\%$ . If any doubt on the results, measurements/tests should be made within the following limits: Ambient Temperature 20±2°C, RH: 65%±5%

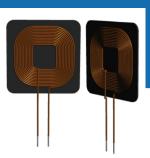
### PART IDENTIFICATION





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## AWCCA-20R20H08-C01-B



20.0 mm x 20.0 mm x 1.0 mm

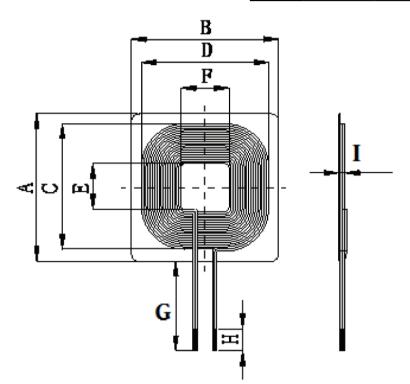


## MECHANICAL DIMENSIONS (ALL DIMENSIONS ARE IN mm)

Tolerances are ±0.2mm, unless otherwise specified\*

Dimensions of AWCCA-20R20H08-C01-B

| Item | A        | В        | C        | D        | E       | F       | G      | Н     | I       |
|------|----------|----------|----------|----------|---------|---------|--------|-------|---------|
| Spec | 20.0 REF | 20.0 REF | 18.2 REF | 18.2 REF | 6.5 REF | 6.5 REF | 15.0±2 | 3.0±1 | 1.0 REF |



Winding Details of AWCCA-20R20H08-C01-B

| <b>Number of Coils</b> | Wire   | <b>Number of Turns</b> | Inductance |
|------------------------|--------|------------------------|------------|
| 1                      | φ0.2mm | 24                     | 12±10%μH   |

Wave Soldering Profile: Not suitable for wave soldering

Manual Soldering: 350°C Max, 3secs

Packaging: Box, 100pcs MOQ

### STORAGE AND OPERATIONAL CONDITIONS

## **Storage Conditions**

- 1. Recommended storage conditions: -25°C~85°C, 70%RH (Max.)
- 2. Service life: Within the limits of six month from being produced.
- 3. The appearance and solder ability should be checked, if product is not in expiry date.

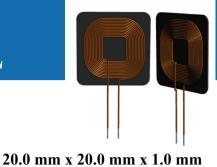
## **Operation Conditions**

1. Use condition limit:  $T=-25^{\circ}C \sim 85^{\circ}C$ ,  $RH \le 90\%$ .



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RoHS/RoHS II Compliant

MSL=1

#### **NOTES**

- 1. The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
- 2. ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- 3. In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
- 4. When changing your production process, please notify ABRACON immediately.
- 5. ABRACON LLC'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 LLC is required. Please contact ABRACON LLC for more information.
- 6. All specifications and Marking will be subject to change without notice.

