



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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Wireless Charging Coil Assembly

AWCCA-50N50



RoHS / RoHS II Compliant



50 x 50mm

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Wireless Charging Coil for Transmitter or Receiver applications, (6.3μH & 24μH options)
- Outline Dimensions: 50mm x 50mm, height options 3.5mm, 4.0mm or 5.0mm.
- For Tx or Rx Applications.
- High permeability shielding to protect sensitive electronics
- Durable construction
- RoHS / RoHS II Compliant & Pb free.

APPLICATIONS:

- Automotive Industry (in car charging)
- Batteries and Battery Chargers
- Consumer Electronics
- Smart Watches
- Digital Cameras and Camcorders
- Wireless Charging Stations
- Mobile Phones & Charging Accessories
- Power Supplies
- Power Tool Manufacturers

STANDARD SPECIFICATIONS

Maximum Ratings

| Item | Value |
|-----------------------------|----------------------------------|
| Operating Temperature Range | -25°C to + 85°C RH ≤ 90%. |
| Storage Temperature Range | -25°C to +85°C, 70% RH (Max.) |

Electrical Characteristics

| Part Number | Inductance | Q-Factor | Current Rating (rms) | Saturated Current (rms) | DC Resistance | SRF |
|----------------------|--|-----------|----------------------|-------------------------|---------------|--------|
| AWCCA-50N50H35-C01-B | 24μH ±10% | 160±30% | 5.4A Tpy. | 21A | 72m Ω±20% | 3.0MHz |
| AWCCA-50N50H35-C02-B | 6.3μH ±10% | 72±30% | 10.6A Tpy. | 36A | 19m Ω±20% | 6.4MHz |
| AWCCA-50N50H40-C01-B | 24μH ±10% | 165±30% | 5.7A Tpy. | 27A | 72m Ω±20% | 2.9MHz |
| AWCCA-50N50H40-C02-B | 6.3μH ±10% | 72±30% | 11.1A Tpy. | 40A | 19m Ω±20% | 5.7MHz |
| AWCCA-50N50H50-C01-B | 24μH ±10% | 163±30% | 5.7A Tpy. | 30A | 72m Ω±20% | 2.8MHz |
| AWCCA-50N50H50-C02-B | 6.3μH ±10% | 75±30% | 10.6A Tpy. | 40A | 19m Ω±20% | 5.7MHz |
| Test Condition | 100KHz / 1V | 100KHz/1V | ΔT = 40 K | 100KHz/1V | 20±15°C | |
| Test Environment | Ambient Temperature: 20±15°C, RH: 65%±20%. | | | | | |

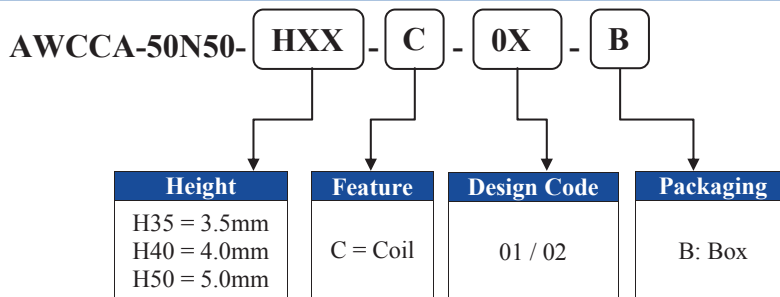
Test Conditions

A) - Ambient Temperature: 20±15°C, RH: 65% ±20%.

If any doubt on the results, measurements/tests should be made within the following limits: Ambient Temperature: 20±2°C, RH: 65%±5%

B) - Isat: DC current at which the inductance drops approximate 5% from its value without current.

PART IDENTIFICATION:



Wireless Charging Coil Assembly

AWCCA-50N50



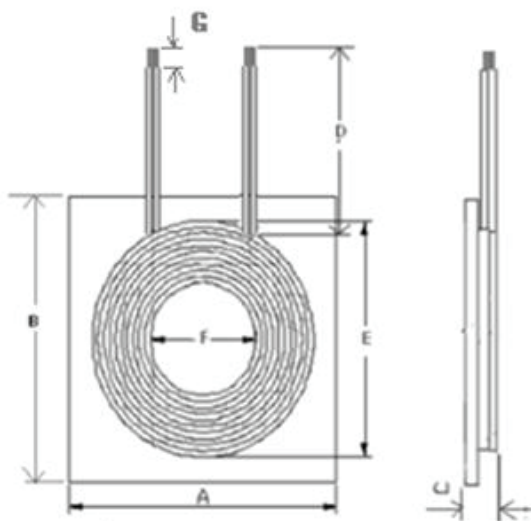
RoHS / RoHS II Compliant



50 x 50mm

OUTLINE DIMENSIONS:

Out Line Dimensions (unit mm)



| Part Number | A | B | C | D | E | F | G |
|----------------------|------|------|---------|------|--------|----------|---------|
| AWCCA-50N50H35-C0X-B | 50±1 | 50±1 | 3.5±0.5 | 50±3 | 44 Max | 20.5±0.5 | 5.0±2.0 |
| AWCCA-50N50H40-C0X-B | 50±1 | 50±1 | 4.0±0.5 | 50±3 | 44 Max | 20.5±0.5 | 5.0±2.0 |
| AWCCA-50N50H50-C0X-B | 50±1 | 50±1 | 5.0±0.5 | 50±3 | 44 Max | 20.5±0.5 | 5.0±2.0 |

Winding Specifications

| Nominal Code | Number of Coils | Wire | Number of Turns | Inductance |
|--------------|-----------------|-------------|-----------------|------------|
| C01 | 1 | 0.08×105 | 20 | 24μH ±10% |
| C02 | 1 | 0.08×105X2P | 10 | 6.3μH ±10% |

Product Customization

Products can be customized according to the Wireless Charging Coil Standards or to customer requirements. Please refer to the following table for the feature ranges, and contact ABRACON or authorized distributor / agent for further details.

| Inductance Range [μH] | DC Resistance Range [mΩ] | Dimension Range [mm] | Thickness range [mm] |
|--------------------------|-----------------------------|-------------------------|-------------------------|
| 1 ~ 100 | 10 ~ 1000 | 10 ~ 200 | 0.4 ~ 10 |

Manual Soldering: 350°C Max, 3secs

Storage condition

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

Operation Conditions

- Use condition limit: T=-25°C ~ 85°C, RH≤ 90%.

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.

ABRACON IS
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