

Wireless Charging Coil Assembly

AWCCA-107T52



RoHS / RoHS II Compliant



107 x 52mm

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Wireless Charging Transmitter Coil Array
- Outline Dimensions: 107.95mm x 52.5mm x 4mm
- Linear Array of Primary Coils, 2 lower coils (12.0μH), 1 upper coil (11.5μH).
- For Tx applications working with 12V
- High permeability shielding to protect sensitive electronics
- Durable construction
- RoHS / RoHS II Compliant & Pb free

APPLICATIONS:

- Wireless Charging Stations
- Automotive Industry (in car charging)
- Batteries Chargers
- Consumer Electronics Chargers
- Mobile Phone Charging Accessories
- Power Tool Charging Systems
- Approved part for IDT Part Number IDTP9036A

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.) |

| Part Number | Inductance | | Q-Factor | Current Rating (rms) | Saturated Current (rms) | DC Resistance | R25 | SRF |
|-----------------------|---|------------------------------|-----------|----------------------|-------------------------|---------------|-----------------------------------|------|
| AWCCA-107T52H40-C01-B | Upper Coil 11.5μH ±10% | Lower Coil 12.0uH ±10% | 80±30% | 7.5A Typ. | 18A | 56mΩ ±20% | 10KΩ±3% | 7MHz |
| Test Condition | 100KHz / 1V | | 100KHz/1V | ΔT = 40 K | 100KHz /1V | 20±15°C | Ta=25 ±0.05°C Pτ ≤ 0.1mw | |
| Test Environment | Ambient Temperature: 20±15°C,RH:65%±20% | | | | | | | |

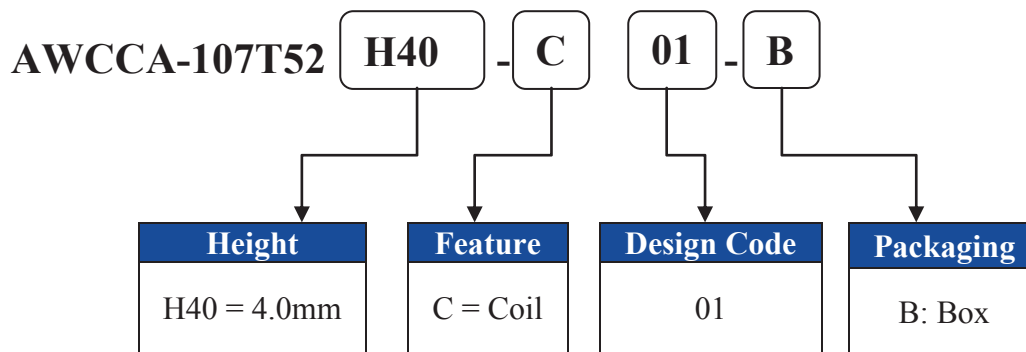
Test Conditions

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:

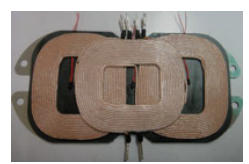


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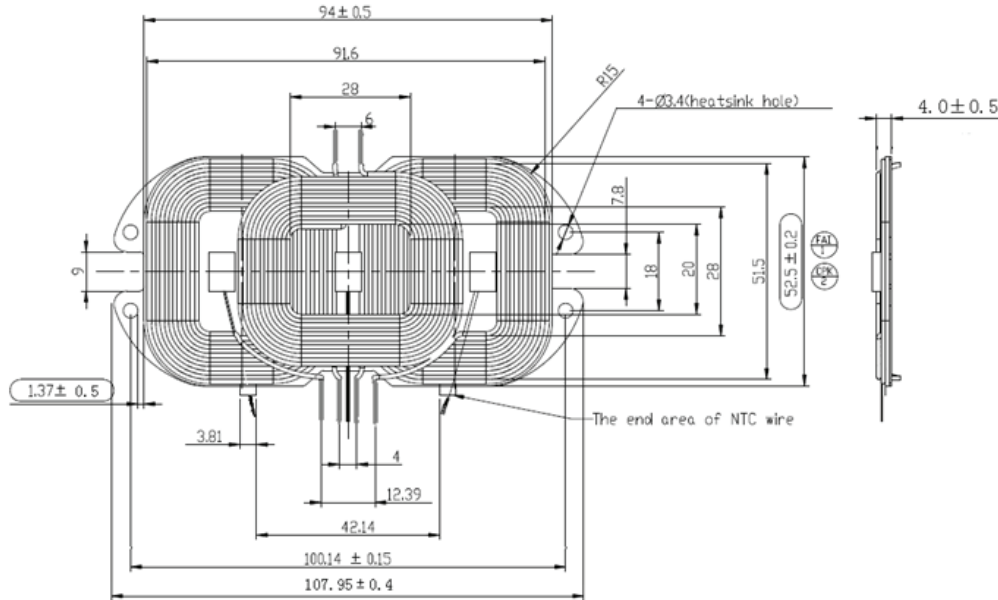
RoHS / RoHS II Compliant



107 x 52mm

OUTLINE DIMENSIONS:

Out Line Dimensions (unit mm)



Winding Specifications

| Number of Coils | Wire | Number of Turns | Inductance |
|-----------------|------------|-----------------|-------------|
| Upper 1 | φ 0.08×100 | 12 | 11.5μH ±10% |
| Lower 2 | φ 0.08×100 | 12 | 12.0μH ±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%.

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