15-20W Wireless Charging Receiver Transmitter Coil



AWCCA-TX520350-F001



OD 52.0 x 3.5mm RoHS/RoHS II Compliant MSL = 1

Features

- Ideal for 15-20W applications
- Dimensions: OD 52.0 x 3.5 mm
- Compact design
- High permeability shielding to protect sensitive electronics
- Very high-power density
- Low DCR

Applications

- Batteries and battery chargers
- Charging accessories and fast chargers
- Portable electronics
- Roamable electronics
- Drones and robotics
- IoT and industrial IoT
- Power tools
- AR / VR
- Wearables

Maximum Ratings

| Item | Value |
|-----------------------------|--------------------------------|
| Operating Temperature Range | T = -25°C ~ 85°C, RH 65±20% |
| Storage Temperature Range | T = -40°C~85°C, RH 65±20% |

Electrical Specifications

| Part Number | Inductance | DC Resistance | Q | | | |
|---------------------|--|---------------|-----------|--|--|--|
| AWCCA-TX520350-F001 | 10.0μH±10% | 65mΩ Max | 80.0 | | | |
| Test Condition | 100KHz/1V | 100KHz / 1V | 100KHz/1V | | | |
| Test Environment | Temperature: 25±10°C, RH: 65% ±20%. Equipment: LCZ METER 1062B, LCZ METER 502 | | | | | |

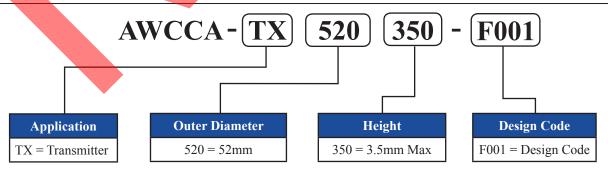
Test Conditions

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: 25±5°C, RH: 75%±10%

Part Identification





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REVISED: 03-1-19

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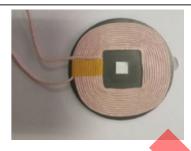


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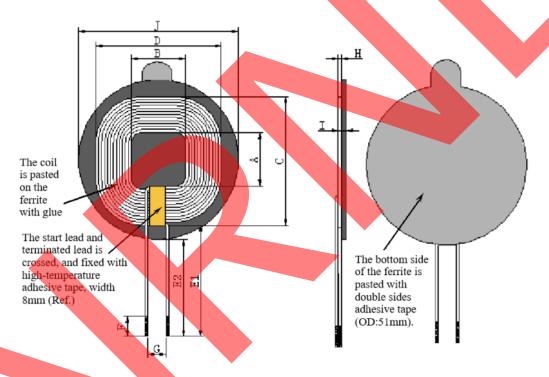


OD 52.0 x 3.5mm RoHS/RoHS II Compliant MSL = 1

Product Image



Mechanical Dimensions (Unit: mm)



Dimensions of AWCCA-TX520350-F001

| Item | A | В | С | D | E1 | E2 | F | G | Н | I | J |
|------|------|------|------|------|------|-------|-----|------|------|-----|------|
| Spec | 19.0 | 19.0 | 48.0 | 48.0 | 14.0 | 12.00 | 2-5 | 10.0 | 1.20 | 3.5 | 52.0 |
| Tol | ±0.5 | ±0.5 | ±1.0 | ±1.0 | Ref | ±2.0 | - | Ref | ±2.0 | Max | ±1.0 |

Winding Details of AWCCA-TX520350-F001

| Number of Coils | Wire | Number of Turns | Inductance | | |
|-----------------|-----------------------|-------------------------|------------|--|--|
| | 0.08*105P cooper wire | 12 Turns, 1 Layer, CCW | 10.0μH±10% | | |
| 1 | Wire Material: Copper | Lead-Free | | | |
| | Ferrite | Φ52*1.0mm Mn-Zn Ferrite | | | |



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Soldering Information

Wave Soldering Profile:

Not suitable for wave soldering

Manual Soldering:

350°C Max, 3secs

Packaging

Qty per Tray: 200pcs Qty Trays per box: 5

Dimension of each tray: 370*265*55mmDimension of each box: 420*270*310mm

- MOQ: 2000 pcs

Storage and Operational Condition

Storage Conditions:

- Recommended storage conditions: -40°C~85°C, RH 65±20%
- Service life: 12 Month @40°C, RH 40 ~ 65%.
- The appearance and solder ability should be check, if product is not in expiry date.

Operation Conditions:

- Use condition limit: $T = -25^{\circ}C \sim 85^{\circ}C$, RH 65±20%.



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