20W RX DUAL MODE WIRELESS CHARGING COIL

AWCCA-RX350300-101

FEATURES

- Wireless charging receiver coil
- Optimized for 19V/20W operation
- 25uH inductance
- 35mm diameter
- 3.0mm height
- High permeability shielding to protect sensitive electronics
- Durable construction
- Industrial -40°C to 85°C operating temperature
- Compatible with Semtech’s high power 20W wireless charging receiver (TSDMRX-19V/20W-EVM)

APPLICATIONS

- Industrial automation
- Medical devices
- Portable audio/video
- Robotics
- Drones
- Appliances
- Power tools

MAXIMUM RATINGS

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>T = -25°C ~ 85°C, RH 65±20%</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>T = -40°C~85°C, RH 65±20%</td>
</tr>
</tbody>
</table>

ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Inductance</th>
<th>DC Resistance</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWCCA-RX350300-101</td>
<td>25μH±10%</td>
<td>170mΩ Max</td>
<td>85 Typ</td>
</tr>
<tr>
<td>Test Condition</td>
<td>100KHz / 1V</td>
<td>20±15°C</td>
<td>100KHz/1V</td>
</tr>
<tr>
<td>Test Equipment</td>
<td>HP4284A, HP42841A, Agilent 34420A or equivalent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Environment</td>
<td>Temperature: 20±10°C, RH: 65% ±20%.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Conditions: Ambient Temperature: 20±10°C, RH: 65% ±20%.

PART IDENTIFICATION

AWCCA- RX - 350 300 - 101

APPLICATION
RX= Receiver

WIDTH
350=35mm

HEIGHT
300=3mm

DESIGN CODE
101=Design Code

5101 Hidden Creek Lane Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sale please visit:
www.abracon.com

ABRACON IS
ISO9001:2015
CERTIFIED

REVISED: 08/07/2018
20W RX DUAL MODE WIRELESS CHARGING COIL

AWCCA-RX350300-101

MECHANICAL DIMENSIONS (ALL DIMENSIONS ARE IN mm)

Tolerances are ±0.2mm, unless otherwise specified*

Dimensions of AWCCA-RX350300-101

<table>
<thead>
<tr>
<th>Item</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spec</td>
<td>11.00</td>
<td>33.00</td>
<td>35.00</td>
<td>35.00</td>
<td>5.00</td>
<td>1.00</td>
<td>3.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Tol</td>
<td>±0.5</td>
<td>±1.00</td>
<td>±0.80</td>
<td>±2.00</td>
<td>±2.00</td>
<td>±0.08</td>
<td>MAX</td>
<td>±1.50</td>
</tr>
</tbody>
</table>

Winding Details of AWCCA-RX350300-101

<table>
<thead>
<tr>
<th>Number of Coils</th>
<th>Wire</th>
<th>Number of Turns</th>
<th>Inductance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USTC Wire Ø0.08 mm*50</td>
<td>13.5 Turns, 2 layer</td>
<td>25μH±10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Magnetic Sheet</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Ferrite</td>
<td>1 layer / Ø35.0mm x 1.00mm</td>
</tr>
</tbody>
</table>

Wave Soldering Profile: Not suitable for wave soldering
Manual Soldering: 350°C Max, 3secs
Packaging:
- Tray packaging: 15 per grid, 300pcs per tray
  - Weight approximately: 2.8Kg
  - Tray dimensions 395 x 258 x 60mm
- Carton packaging: 4 trays per carton, 1200pcs per carton
  - Weight approximately: 12Kg
  - Carton dimensions: 395 x 285 x 275mm

STORAGE AND OPERATIONAL CONDITIONS

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

Operation Conditions
1. Use condition limit: T= -25°C ~ 85°C, RH 65±20%
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.