SRP1770TA Series - Shielded Power Inductors

Features
- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 1 to 100 µH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications
- Automotive systems:
  - Driver assistant
  - Information
  - Entertainment
  - Lighting
- DC/DC converters
- Power supplies

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V L (µH)</th>
<th>Q (Min.) @ 100 kHz / 1 V Typ.</th>
<th>SF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Isat1 (A)</th>
<th>Isat2 (A)</th>
<th>Terminal Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP1770TA-1R0M</td>
<td>1 ± 20</td>
<td>36</td>
<td>1.6</td>
<td>2.5</td>
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<td>60</td>
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<td>2</td>
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<td>22</td>
<td>2.4</td>
<td>2.7</td>
<td>43.5</td>
<td>47</td>
<td>62</td>
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<td>3.5</td>
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<td>45</td>
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<td>4.8</td>
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<td>21</td>
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</table>

Soldering Profile

Operating Temperature .........................−40 °C to +150 °C
(temperature rise included)

Storage Temperature .........................−40 °C to +125 °C

Rated Current
Inductance drops 20 % at Isat1,
30 % at Isat2

Temperature Rise ...40 °C at rated Irms

Moisture Sensitivity Level .................1

ESD Classification (HBM) .................N/A

Materials
Core..............................Carbonyl powder
Wire..............................Enameled copper
Terminal Finish .................Sn
Packaging....... 200 pcs. per 13-inch reel

Product Dimensions

How to Order

SRP1770TA - 220 M

Recommended Layout

** Bourne considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine
(Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device
performance may vary over time.
Users should verify actual device performance in their specific applications.
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