Shielded Power Inductors – SLR1075

- Tight DCR tolerance for inductor-DCR-based current sensing circuits
- Excellent current handling, up to 93 A
- 10.4 \times 8.0 \times 7.4 \text{ mm} surface mount package
- Designed for use in multi-phase VRM/VRD/EVRD regulators

Designer’s Kit C467 contains 3 each of select values.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (nH)</th>
<th>DCR (mOhms)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR1075-121KE</td>
<td>120</td>
<td>0.29</td>
<td>59</td>
<td>93.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-151KE</td>
<td>150</td>
<td>0.29</td>
<td>48</td>
<td>72.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-171KE</td>
<td>170</td>
<td>0.29</td>
<td>44</td>
<td>65.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-221KE</td>
<td>215</td>
<td>0.29</td>
<td>36</td>
<td>53.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-231KE</td>
<td>230</td>
<td>0.29</td>
<td>35</td>
<td>49.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-271KE</td>
<td>270</td>
<td>0.29</td>
<td>30</td>
<td>41.0</td>
<td>50</td>
</tr>
<tr>
<td>SLR1075-301KE</td>
<td>300</td>
<td>0.29</td>
<td>27</td>
<td>36.0</td>
<td>50</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

<table>
<thead>
<tr>
<th>Packaging Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR1075-301KE</td>
<td>C = 7” machine-ready reel, EIA-481 embossed plastic tape (100 parts per full reel).</td>
</tr>
<tr>
<td></td>
<td>B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.</td>
</tr>
<tr>
<td></td>
<td>D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (500 parts per full reel).</td>
</tr>
</tbody>
</table>

2. Inductance at 100 kHz, 0.1 Vrms, 0 Adc.
3. DCR is measured on a micro-ohmmeter at points indicated in the diagram below.

4. DC current that causes an inductance drop of 20% (typ) from its value without current.
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Irms Testing

Irms testing was performed on 0.75 inch wide x 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
SLR1075 Shielded Power Inductors

L vs Frequency

### Dimensions
- **0.409 in (10.4 mm)**
- **0.291 in (7.4 mm)**
- **0.079 in (2.0 mm)**
- **±0.006 in (±0.15 mm)**
- **0.098 in (2.5 mm)**
- **0.126 in (3.2 mm)**

### Recommended Land Pattern

- **Dash number**
- **Internal code**

### Inductance vs Frequency
- **215 nH**
- **170 nH**
- **150 nH**
- **120 nH**

**Note:**
- This product may not be used in medical or high-risk applications without prior Coilcraft approval.
- Specification subject to change without notice.
- Please check website for latest information.
**SLR1075 Shielded Power Inductors**

**L vs Current**

- **at 25°C**
- **at 100°C**
- **at 125°C**

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- 120 nH
- 150 nH
- 170 µH
- 215 nH
- 230 nH
- 270 nH
- 300 nH

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