SMT Power Inductors – ME3215

- Low profile, small footprint power inductor
- 2.5 x 3.2 mm footprint; 1.55 mm tall

Designer’s Kit C408 contains 3 each of all values
Core material: Ferrite
Core and winding loss: See www.coilcraft.com/coreloss
Terminations: RoHS compliant tin-silver-copper over tin over nickel over silver. Other terminations available at additional cost.
Weight: 46 – 48 mg
Ambient temperature: –40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second refluxes at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 2000/7” reel; 7000/13” reel. Plastic tape: 12 mm wide, 0.25 mm thick, 4 mm pocket spacing, 2.25 mm pocket depth

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 (µH)</th>
<th>DCR max3 (Ohms)</th>
<th>SRF typ4 (MHz)</th>
<th>Isat (A)5</th>
<th>Irms (A)6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME3215-102ML_</td>
<td>1.0 ±20%</td>
<td>0.058</td>
<td>200</td>
<td>1.85</td>
<td>1.70</td>
</tr>
<tr>
<td>ME3215-222ML_</td>
<td>2.2 ±20%</td>
<td>0.107</td>
<td>135</td>
<td>1.25</td>
<td>1.30</td>
</tr>
<tr>
<td>ME3215-332ML_</td>
<td>3.3 ±20%</td>
<td>0.170</td>
<td>105</td>
<td>1.00</td>
<td>1.05</td>
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<tr>
<td>ME3215-472ML_</td>
<td>4.7 ±20%</td>
<td>0.245</td>
<td>90</td>
<td>0.85</td>
<td>0.83</td>
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<tr>
<td>ME3215-103KL_</td>
<td>10 ±10%</td>
<td>0.505</td>
<td>60</td>
<td>0.62</td>
<td>0.60</td>
</tr>
<tr>
<td>ME3215-153KL_</td>
<td>15 ±10%</td>
<td>0.773</td>
<td>50</td>
<td>0.51</td>
<td>0.48</td>
</tr>
<tr>
<td>ME3215-223KL_</td>
<td>22 ±10%</td>
<td>1.00</td>
<td>38</td>
<td>0.42</td>
<td>0.42</td>
</tr>
<tr>
<td>ME3215-333KL_</td>
<td>33 ±10%</td>
<td>1.48</td>
<td>30</td>
<td>0.33</td>
<td>0.35</td>
</tr>
<tr>
<td>ME3215-473KL_</td>
<td>47 ±10%</td>
<td>2.33</td>
<td>24</td>
<td>0.28</td>
<td>0.28</td>
</tr>
<tr>
<td>ME3215-683KL_</td>
<td>68 ±10%</td>
<td>3.40</td>
<td>20</td>
<td>0.23</td>
<td>0.24</td>
</tr>
<tr>
<td>ME3215-104KL_</td>
<td>100 ±10%</td>
<td>4.67</td>
<td>16</td>
<td>0.19</td>
<td>0.18</td>
</tr>
</tbody>
</table>

1. Please specify termination and packaging codes:
   - ME3215-104KLČ
   - Termination: L = RoHS tin-silver-copper over tin over nickel over silver.
     Special order: S = non-RoHS tin-lead (63/37).
   - Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (2000 per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
   - D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-A fixture in Agilent/HP 4284A impedance analyzer.
3. DCR measured on a micro-ohmmeter and Coilcraft CCF858 test fixture.
4. SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
5. DC current at which the inductance drops the specified amount from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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Support & FAQ
SMT Power Inductors – ME3215 Series

Typical L vs Current

Typical L vs Frequency

Dimensions are in inches/mm.

Recommended Land Pattern

This product may not be used in medical or high risk applications without prior Coilcraft approval.

Specification subject to change without notice.
Please check web site for latest information.