Power Injection Chokes for PoC  

1210POC

- Optimized for AEC-Q200 power over coax (PoC) applications
- Small size to reduce board area of overall system solutions
- High impedance ($\geq 1\text{kOhm}$) maintained over a wide band frequency range to isolate AC signal from the DC power
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

**Core material**: Ferrite  
**Environmental**: RoHS compliant

**Weight**: 115 – 125 mg  
**Ambient temperature**: –40°C to +125°C with (15°C rise) Irms current.

<table>
<thead>
<tr>
<th>Part number</th>
<th>L \textsuperscript{2} \textpm 20% (µH)</th>
<th>DCR (Ohms) \textsuperscript{3}</th>
<th>SRF typ \textsuperscript{4} (MHz)</th>
<th>Isat (mA) \textsuperscript{5}</th>
<th>I rms typ (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1210POC-682MR_</td>
<td>6.8</td>
<td>0.20</td>
<td>0.24</td>
<td>120</td>
<td>1400</td>
</tr>
<tr>
<td>1210POC-103MR_</td>
<td>10.0</td>
<td>0.29</td>
<td>0.34</td>
<td>95</td>
<td>1100</td>
</tr>
<tr>
<td>1210POC-223MR_</td>
<td>22.0</td>
<td>0.76</td>
<td>0.88</td>
<td>70</td>
<td>720</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:  
   - 1210POC-223MR\_  
   - Packaging:  
     - C = 7” machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge). See dimensional drawing for packaging information.  
     - D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked. See dimensional drawing for packaging information.  

2. Inductance tested at 100 kHz, 0.1 Vrms, 200 mA DC using HP4263 w/SMD-B test fixture or equivalent  
3. DCR measured using a micro-ohmmeter.  
4. SRF measured using an Agilent/HP 5071C network analyzer and a Coilcraft SMD-D test fixture.  
5. DC current that causes 30% inductance drop from its initial value at 200 mA at specified temperature.  
6. Current that causes a 40°C rise at 25°C.  
7. Current that causes a 40°C rise at 85°C.  
8. Current that causes a 15°C rise at 125°C.  
9. Electrical specifications at 25°C.  

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
1210POC Power Injection Chokes for PoC

L vs Current – 1210POC-682

L vs Current – 1210POC-103

L vs Current – 1210POC-223
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Impedance vs Frequency – 1210POC-682

Impedance vs Frequency – 1210POC-103

Impedance vs Frequency – 1210POC-223

Dimensions – 1210POC

Dimensions are in inches

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.13</td>
<td>0.105</td>
<td>0.118</td>
<td>0.004</td>
<td>0.037</td>
<td>0.020</td>
<td>0.080</td>
<td>0.104</td>
<td>0.026</td>
<td>0.100</td>
</tr>
<tr>
<td>3.30</td>
<td>2.67</td>
<td>3.00</td>
<td>0.10</td>
<td>0.94</td>
<td>0.51</td>
<td>2.03</td>
<td>2.65</td>
<td>0.65</td>
<td>2.54</td>
</tr>
</tbody>
</table>

Packaging 750/7” reel; 3000/13” reel; Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 2.72 mm pocket depth