SMT Power Inductors – DO3308P

- Handle saturating currents up to 4.2 Amps
- Defense Supply Center CID: A-A-59738

**Designer's Kit C309** contains 3 each of all values

**Core material**  Ferrite

**Core and winding loss**  See www.coilcraft.com/coreloss

**Terminations**  RoHS compliant electroplated gold (<50 µin) over nickel over phos bronze. Other terminations available at additional cost.

**Weight**  594 – 640 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 reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**  1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  38 per billion hours / 29,315,789 hours, calculated per Telcordia SR-332

**Packaging**  1000/13” reel  Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 3.7 mm pocket depth

**PCB washing**  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

---

<table>
<thead>
<tr>
<th>Part number</th>
<th>L ±20% (µH)</th>
<th>Percent tol</th>
<th>DCR max (Ohms)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO3308P-472_L</td>
<td>4.7</td>
<td>20,10</td>
<td>0.036</td>
<td>50</td>
<td>4.2</td>
<td>3.2</td>
</tr>
<tr>
<td>DO3308P-682_L</td>
<td>6.8</td>
<td>20,10</td>
<td>0.060</td>
<td>47</td>
<td>3.9</td>
<td>2.6</td>
</tr>
<tr>
<td>DO3308P-103_L</td>
<td>10</td>
<td>20,10</td>
<td>0.085</td>
<td>37</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>DO3308P-153_L</td>
<td>15</td>
<td>20,10</td>
<td>0.12</td>
<td>35</td>
<td>2.3</td>
<td>1.9</td>
</tr>
<tr>
<td>DO3308P-223_L</td>
<td>22</td>
<td>20,10</td>
<td>0.18</td>
<td>26</td>
<td>1.8</td>
<td>1.5</td>
</tr>
<tr>
<td>DO3308P-333_L</td>
<td>33</td>
<td>20,10</td>
<td>0.25</td>
<td>19</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>DO3308P-473_L</td>
<td>47</td>
<td>20,10</td>
<td>0.32</td>
<td>14</td>
<td>1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>DO3308P-683_L</td>
<td>68</td>
<td>20,10</td>
<td>0.54</td>
<td>12</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>DO3308P-104_L</td>
<td>100</td>
<td>20,10</td>
<td>0.69</td>
<td>11</td>
<td>0.87</td>
<td>0.73</td>
</tr>
<tr>
<td>DO3308P-154_L</td>
<td>150</td>
<td>20,10</td>
<td>0.94</td>
<td>9.0</td>
<td>0.74</td>
<td>0.62</td>
</tr>
<tr>
<td>DO3308P-224_L</td>
<td>220</td>
<td>20,10</td>
<td>1.60</td>
<td>6.0</td>
<td>0.56</td>
<td>0.51</td>
</tr>
<tr>
<td>DO3308P-334_L</td>
<td>330</td>
<td>20,10</td>
<td>2.15</td>
<td>5.5</td>
<td>0.50</td>
<td>0.40</td>
</tr>
<tr>
<td>DO3308P-474_L</td>
<td>470</td>
<td>20,10</td>
<td>3.30</td>
<td>4.5</td>
<td>0.40</td>
<td>0.33</td>
</tr>
<tr>
<td>DO3308P-684_L</td>
<td>680</td>
<td>20,10</td>
<td>4.40</td>
<td>3.5</td>
<td>0.33</td>
<td>0.28</td>
</tr>
<tr>
<td>DO3308P-105_L</td>
<td>1000</td>
<td>20,10</td>
<td>7.00</td>
<td>2.5</td>
<td>0.29</td>
<td>0.23</td>
</tr>
</tbody>
</table>

1. Please specify tolerance, termination and packaging codes:

   **Tolerance:**  M = 20%  K = 10%

   **Termination:**  L = RoHS compliant gold over nickel over phos bronze.

   **Special order:**  T = RoHS tin-silver-copper (95.5/4/0.5)  or  S = non-RoHS tin-lead (63/37).

   **Packaging:**  D = 13” machine-ready reel. EIA-481 embossed plastic tape (1000 parts 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 D.

2. Inductance tested at 100 kHz, 0.1 Irms, 0 Adc.

3. Tolerances in bold are stocked for immediate shipment

4. DC current at which inductance drops 10% (typ) from its value without current.

5. Current that causes a 40°C temperature rise from 25°C ambient.

6. Electrical specifications at 25°C.

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

---

**SPICE models ON OUR WEB SITE**
SMT Power Inductors – DO3308P Series

Typical L vs Frequency

Typical L vs Current

* Allow an additional 0.01/0.254 in length and 0.005/0.127 in height for optional tin-lead and tin-silver-copper application.

Recommended Land Pattern

Dimensions are in inches/mm