Coupled Inductor/Transformer  LPH8045-223

- Three 1:1 windings can be wired in a variety of ways: As a 1:1, 2:1 or 1:2 transformer; as a 1:1 transformer with an aux winding; as a gate drive transformer; as a SEPIC inductor, etc.

- Low DCR; excellent current handling

**Core material**  Ferrite

**Environmental**  RoHS compliant, halogen free

**Terminations**  RoHS compliant silver-palladium-platinum-glass frit.

**Weight**  850 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 / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging**
- 250/7″ reel; 1000/13″ reel;  Plastic tape: 16 mm wide, 0.28 mm thick, 12 mm pocket spacing, 4.83 mm pocket depth
- Recommended pick and place nozzle  OD: 8 mm; ID: 4 mm
- PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

**Inductance**
- 22 ±20% (µH) typ   max

<table>
<thead>
<tr>
<th>Part number^1</th>
<th>Inductance^2</th>
<th>DCR (Ohms)^3</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)^4</th>
<th>Irms (A)^5</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPH8045-223ME</td>
<td>22</td>
<td>0.390</td>
<td>0.440</td>
<td>15.0</td>
<td>1.70</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:

   **LPH8045-223MEC**
   - Packaging:  **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel).
   -  **B** = Less than full reel. In tape, but not machine ready.
   -  **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 parts per full reel).

2. Inductance is for each winding, measured at 200 kHz, 0.1 Vrms, 0 Adc.

3. DCR is for each winding.

4. DC current at 25°C that causes the specified inductance drop 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.

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Schematic

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LPH8045-223 Coupled Inductor/Transformer

L vs Current

L vs Frequency

Packaging 250/7" reel; 1000/13" reel; Plastic tape: 16 mm wide, 0.28 mm thick, 12 mm pocket spacing, 4.83 mm pocket depth

Recommended pick and place nozzle OD: 8 mm; ID: 4 mm

Dimensions are in inches mm

Recommended Land Pattern

RoHS Compliant

Halogen Free

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