SMT Planar Transformers

For Applications up to 300 Watts

- Rated for 300 Watts
- Designed to operate between 200 kHz and 700 kHz with a nominal 48 V input.
- High efficiency; excellent DCR; very low leakage inductance; 1500 Vrms, one minute primary to secondary isolation.
- Provides 0.009” (0.229 mm) clearance above the seating plane
- May be special ordered with an auxiliary winding

Core material Ferrite
Terminations Matte tin over nickel over brass.
Weight 22.5 – 26.0 g
Ambient temperature –40°C to +125°C
Storage temperature Component: –40°C to +125°C.
Tray packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second refloows 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 25 per tray
PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Primary turns</th>
<th>Primary inductance2</th>
<th>Leakage inductance3</th>
<th>DCR max (mOhms)</th>
<th>Volt-time product typ5</th>
<th>Height max (in/mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1 N2</td>
<td>min (µH)</td>
<td>max (µH)</td>
<td>Primary (N1)</td>
<td>Primary (N2) Secondary4</td>
<td></td>
</tr>
<tr>
<td>PL300-100L</td>
<td>4 4</td>
<td>287</td>
<td>0.25</td>
<td>7.2</td>
<td>7.2</td>
<td>206</td>
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<tr>
<td>PL300-101L</td>
<td>5 5</td>
<td>448</td>
<td>0.35</td>
<td>9.0</td>
<td>9.0</td>
<td>258</td>
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<tr>
<td>PL300-102L</td>
<td>6 6</td>
<td>635</td>
<td>0.50</td>
<td>10.6</td>
<td>10.6</td>
<td>310</td>
</tr>
<tr>
<td>PL300-103L</td>
<td>7 7</td>
<td>864</td>
<td>0.75</td>
<td>12.3</td>
<td>12.3</td>
<td>361</td>
</tr>
<tr>
<td>PL300-104L</td>
<td>8 8</td>
<td>1075</td>
<td>1.0</td>
<td>13.8</td>
<td>13.8</td>
<td>413</td>
</tr>
</tbody>
</table>

1. To order a transformer with an optional auxiliary winding, add an “X” and the turn count after the PL300, e.g. PL300X3-100L.
2. Turn counts of 1, 2, 3, 4, 5, 7 and 9 are available for the auxiliary winding. Transformers with auxiliary windings are not stocked.
3. Inductance measured on an Agilent/HP 4284 at 200 kHz, 0.5 Vrms, 0 Adc between pins 2 and 5 with pins 3 and 4 connected.
4. Leakage inductance measured at 200 kHz, 0.5 Vrms, 0 Adc between pins 2 and 5, with pins 3 and 4 connected, and with all secondary pins shorted.
5. DCR for secondary is measured between pins 7 and 11.
6. Volt-time product is based on primary windings connected in series.
7. Electrical specifications at 25°C.

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

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PL300 Series SMT Planar Transformers

Dimensions are in inches

- PL300-100L 0.410 / 10.4
- PL300-101L 0.410 / 10.4
- PL300-102L 0.450 / 11.4
- PL300-103L 0.450 / 11.4
- PL300-104L 0.475 / 12.1

Part number | Height max (in / mm)
---|---
PL300-100L | 0.410 / 10.4
PL300-101L | 0.410 / 10.4
PL300-102L | 0.450 / 11.4
PL300-103L | 0.450 / 11.4
PL300-104L | 0.475 / 12.1

Recommended Land Pattern

Dot indicates pin 1

See table

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