SMT Planar Transformer

- Optimized for PoE DC/DC Powered Device (PD) resonant forward converters
- Designed to meet IEEE802.3bt standard
- Perfect solution for high power PoE applications up to 100 W
- Optimized for 200 kHz to 350 kHz with 42.5 – 57 V input
- 1500 Vrms, one minute isolation (hipot) between primary and secondary

Core material  Ferrite
Terminations Matte tin over nickel over brass
Weight  13 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 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)
Packaging  36 per tray
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Primary inductance ±25% (µH)</th>
<th>Leakage inductance max (µH)</th>
<th>DCR max (mOhms) pri sec aux</th>
<th>Turns Ratio pri: sec: aux</th>
<th>Volt-time product (Vµsec)</th>
<th>Isolation (Vrms)</th>
<th>Output (V, A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA1030-AL</td>
<td>255</td>
<td>0.30</td>
<td>26.2 6.8 58.5</td>
<td>1: 0.57 : 0.57</td>
<td>131</td>
<td>1500</td>
<td>12 V, 6 A</td>
</tr>
</tbody>
</table>

1. Inductance measured on an Agilent/HP 4284 at 300 kHz, 0.6 Vrms, 0 Adc between pins 2 and 5 with pins 3 and 4 connected.
2. Leakage inductance measured at 300 kHz, 0.6 Vrms, 0 Adc between pins 2 and 5, with pins 3 and 4 connected, and with all secondary pins shorted.
3. Volt-time product is for the primary, between pin 2 and 5 with pin 4 and 3 connected
4. 1500 Vrms, one minute isolation (hipot) from primary and aux to secondary.
5. Output is for secondary. Auxiliary winding output is 15 V, 0.2 A.
6. Electrical specifications at 25°C.

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

Connect pin 4 and pin 3 on PC board.
AA1030-AL SMT Planar Transformer

Dimensions are in inches/mm

Recommended Land Pattern