**SMT Planar Transformer**

- Optimized for Silicon Labs Si34071 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)
- **Failures in Time (FIT) / Mean Time Between Failures (MTBF)**: 10.06 per billion hours / 9.940E+07 hours, calculated per Telcordia SR-332
- **Packaging**: 36 per tray
- **PCB washing**: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

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<table>
<thead>
<tr>
<th>Part number</th>
<th>Primary inductance1 ±25% (µH)</th>
<th>Leakage inductance2 max (µH)</th>
<th>DCR max (mOhms)</th>
<th>Turns Ratio1 pri : sec : aux</th>
<th>Volt-time product typ3 (Vµsec)</th>
<th>Isolation4 (Vrms)</th>
<th>Output5 (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>

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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.

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Dimensions are in inches or mm.