Flyback Transformers

For STMicroelectronics PM8803
PoE Plus Powered Device Controller

- Designed to operate at 250 kHz in continuous conduction mode with 42–57 Volts input
- 1500 Vrms, one minute isolation from the primary and bias windings to the secondary windings

Core material  Ferrite
Terminations  RoHS tin-silver over tin over nickel over phos bronze.
Other terminations available at additional cost.
Weight 6.5 g
Ambient temperature  -40°C to +85°C
Storage temperature  Component: -40°C to +85°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)
Packaging  175 per 13″ reel Plastic tape: 32 mm wide, 0.5 mm thick, 28 mm pocket spacing, 12.93 mm pocket depth
PCB washing  Only pure water or alcohol recommended

<table>
<thead>
<tr>
<th>Part number¹</th>
<th>Power (W)</th>
<th>Inductance at 0 A² ±10% (µH)</th>
<th>Inductance at Ipk³ min (µH)</th>
<th>DCR max (Ohms)⁴</th>
<th>Leakage inductance max (µH)</th>
<th>Turns ratio⁶</th>
<th>Ipk³ (A)</th>
<th>Output²</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA3691-AL_</td>
<td>20</td>
<td>100</td>
<td>90.0</td>
<td>0.185 0.0085</td>
<td>0.340</td>
<td>1 : 0.25</td>
<td>1.3</td>
<td>5 V, 4 A</td>
</tr>
<tr>
<td>JA4173-AL_</td>
<td>20</td>
<td>100</td>
<td>90.0</td>
<td>0.211 0.0060</td>
<td>0.404</td>
<td>1 : 0.156</td>
<td>1.3</td>
<td>3.3 V, 6 A</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

HA3691-ALD

Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape (175 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 measured at 250 kHz, 0.2 Vrms, 0 Adc.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the secondary is with windings connected in parallel.
5. Leakage inductance is for the primary and is measured with the secondary shorted.
6. Turns ratio is with the secondary windings connected in parallel.
7. Output of the secondary is with the windings connected in parallel. Bias winding output is 10 V, 20 mA.
8. Electrical specifications at 25°C

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

**Recommended Land Pattern**

Secondary windings to be connected in parallel on PC board

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