No-Opto Flyback Transformers YA903x-AL

- Optimized for LM25180 and LM5180 flyback converters from Texas Instruments
- Five output versions for various single-output designs with 4 – 65 V input
- Eliminates auxiliary winding for simple and reliable converter designs

Core material Ferrite
Terminations RoHS tin-silver-copper over tin over nickel over phosph bronze. Other terminations available at additional cost.
Weight 2 – 2.3 g
Ambient temperature –40°C to +85°C
Max Part Temperature +125°C (ambient + temperature 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)
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 A ² (µH)</th>
<th>Inductance min at 2 A (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH) ²</th>
<th>Turns ratio pri : sec</th>
<th>Isolation (Vrms)</th>
<th>Power (W)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>YA9033-ALD</td>
<td>32</td>
<td>25.6</td>
<td>0.240</td>
<td>0.480</td>
<td>1 : 0.5</td>
<td>1500</td>
<td>6</td>
<td>8 V, 0.75 A</td>
</tr>
<tr>
<td>YA9034-ALD</td>
<td>36</td>
<td>28.8</td>
<td>0.244</td>
<td>0.426</td>
<td>1 : 0.666</td>
<td>1500</td>
<td>6</td>
<td>12 V, 0.5 A</td>
</tr>
<tr>
<td>YA9035-ALD</td>
<td>30</td>
<td>24.0</td>
<td>0.168</td>
<td>0.290</td>
<td>1 : 1</td>
<td>1500</td>
<td>6</td>
<td>15 V, 0.4 A</td>
</tr>
<tr>
<td>YA9036-ALD</td>
<td>30</td>
<td>24.0</td>
<td>0.168</td>
<td>0.314</td>
<td>1 : 2</td>
<td>1500</td>
<td>6</td>
<td>24 V, 0.25 A</td>
</tr>
<tr>
<td>YA9037-ALD</td>
<td>32</td>
<td>25.6</td>
<td>0.232</td>
<td>0.384</td>
<td>1 : 3</td>
<td>1500</td>
<td>6</td>
<td>48 V, 0.1 A</td>
</tr>
</tbody>
</table>

1. Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (300 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
2. Inductance is for the primary, measured at 300 kHz, 0.1 Vrms, 0 Adc.
3. Minimum inductance is for the primary, measured at 300 KHz, 0.1 Vrms, 2 Adc.
4. Leakage inductance is for the primary winding with the secondary windings shorted.
5. 1500 Vrms, one minute isolation (hipot) between primary and secondary.
6. Electrical specifications at 25°C.

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

### Schematics

Connect pin 5 to 6 and pin 7 to 8 on the PC board
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Dimensions

Packaging 300 per 13” reel  Plastic tape: 32 mm wide, 0.5 mm thick, 20 mm pocket spacing, 10.69 mm pocket depth