Isolation Transformers

For Analog Devices ADuM347x Quad-Channel Digital Isolators

- Developed to work with Analog Devices ADuM347x quad-channel, digital isolators with integrated PWM controller and transformer driver
- Power rating: 2 Watts
- Designed to meet UL/CSA/IEC 60950-1 and 62638-1 Basic Insulation with 1.5 mm creepage and clearance.

Core material: Ferrite
Terminations: Tin-silver over tin over nickel over phos bronze
Isolation: 2500 Vrms primary to secondary; 500 Vrms winding to core
Weight: 0.95 – 0.98 g
Ambient temperature: –40°C to +125°C
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)
Failures in Time (FIT) / Mean Time Between Failures (MTBF): 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging: 600/13″ reel; Plastic tape: 24 mm wide, 0.37 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth
PCB washing: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (µH)</th>
<th>Turns ratio</th>
<th>Pri / output voltages</th>
<th>DCR max (Ohms)(2)</th>
<th>Leakage inductance max (µH)(3)</th>
<th>Volt-time product (V-µsec)(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA4631-BL_</td>
<td>63.75</td>
<td>1:2</td>
<td>Pri: 5 V +3.3 to +5 V</td>
<td>0 V</td>
<td>0.095</td>
<td>0.460</td>
</tr>
<tr>
<td>JA4650-BL_</td>
<td>63.75</td>
<td>1:3</td>
<td>Pri: 5 V +12 to +15 V</td>
<td>+6 to +7.5 V</td>
<td>0 V</td>
<td>0.122</td>
</tr>
<tr>
<td>KA4976-AL_</td>
<td>63.75</td>
<td>1:5</td>
<td>Pri: 5 V +12 to +15 V</td>
<td>0 V</td>
<td>−12 to −15 V</td>
<td>0.095</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a packaging code:

   JA4631-BLD

   Packaging: D = 13″ machine ready reel. EIA-481 embossed plastic tape (600 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 C.

2. Inductance is for the primary, measured from pins 1–4 at 1 kHz, 0.1 Vrms.
3. DCR is for each winding of the primary and secondary.
4. Leakage inductance is for the primary windings, measured from pins 1–4 with all secondary windings shorted.
5. Based on Bsat of the core at 25°C and the number of turns on winding 4–3.
6. Electrical specifications at 25°C.

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

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