Isolation Transformers

For Analog Devices ADuM4070 Isolated Switching Regulator

- Developed to work with Analog Devices ADuM4070 Isolated switching regulator with integrated feedback
- Power rating: 2 Watts
- 5000 Vrms, one second isolation from primary to secondary.

Core material  Ferrite
Terminations  Tin-silver-copper over tin over nickel over phos bronze
Weight  10.1 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 refloows 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  175 per 13″ reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

1. When ordering, please specify a packaging code:

CR7985-CL\text{D} = 13″ machine ready reel. EIA-481 embossed plastic tape (175 per full reel).
B = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added ($25 charge), use code letter D instead.

2. Inductance is for the primary, measured from pins 12–11 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 12–11 with all secondary windings shorted.
5. Based on \( V_{\text{IN}} \) max, \( F_{\text{SW}} \) min and number of primary turns
6. Electrical specifications at 25°C.

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

Part number\text{1}  Inductance\text{2}  Turns ratio  Pri / output voltages  DCR max (Ohms)\text{3}  Leakage inductance\text{4}  Volt-time product\text{5}  
<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance\text{2} (µH)</th>
<th>Turns ratio</th>
<th>Pri output (pin 5)</th>
<th>DCR max (µH)</th>
<th>Leakage inductance (V-µsec)</th>
<th>Volt-time product (V-µsec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR7983-CL_</td>
<td>256</td>
<td>1:2</td>
<td>5 V +3.3 to +15 V</td>
<td>0 V</td>
<td>0.190 0.350</td>
<td>0.75 18.0</td>
</tr>
<tr>
<td>CR7984-CL_</td>
<td>256</td>
<td>1:3</td>
<td>5 V +12 to +24 V</td>
<td>+6 to +12 V</td>
<td>0 V</td>
<td>0.170 0.450</td>
</tr>
<tr>
<td>CR7985-CL_</td>
<td>256</td>
<td>1:5</td>
<td>5 V +5 to +15 V</td>
<td>0 V</td>
<td>–5 to –15 V</td>
<td>0.170 2.00</td>
</tr>
</tbody>
</table>

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Primary windings and secondary windings to be connected in series on the PC board.

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RoHS Compliant

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