Isolation Transformers

- Developed for Texas Instruments SN6501 and SN6505B Push-Pull driver
- Low profile and center-tapped push-pull transformers for isolated power supply
- 2500 Vrms, one minute high isolation (hipot) winding to winding
- AEC-Q200 Grade 1 (−40°C to +125°C)

Core material  Ferrite
Terminations  RoHS tin-silver-copper over tin over nickel over phos bronze.

Weight  0.3 – 0.4 g
Ambient temperature  −40°C to +125°C
Maximum part temperature  +165°C (ambient + temp rise)
Storage temperature  Component: −40°C to +165°C.
Tape and reel packaging: −40°C to +80°C

Resistance to soldering heat  Max three 40 second refows 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  1000 per 13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 4.6 mm pocket depth
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Input voltage (V)</th>
<th>Lmin2 at 0 A (µH)</th>
<th>Leakage L3 max (µH) pri</th>
<th>DCR max (Ohms) sec</th>
<th>Turns ratio pri : sec</th>
<th>Volt-time product volt (V·µsec)</th>
<th>Isolation5 (Vrms)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA8251-AED</td>
<td>3.3</td>
<td>1050</td>
<td>0.35</td>
<td>0.306</td>
<td>1:1.13</td>
<td>10.4</td>
<td>2500</td>
<td>3.3</td>
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<tr>
<td>UA8252-AED</td>
<td>5.0</td>
<td>900</td>
<td>0.35</td>
<td>0.320</td>
<td>1:1.073</td>
<td>11.4</td>
<td>2500</td>
<td>5</td>
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<tr>
<td>UA8253-AED</td>
<td>3.3</td>
<td>900</td>
<td>1.2</td>
<td>0.320</td>
<td>1:1.693</td>
<td>11.5</td>
<td>2500</td>
<td>5</td>
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<tr>
<td>UA8254-AED</td>
<td>3.3</td>
<td>900</td>
<td>1.0</td>
<td>0.440</td>
<td>1:1.308</td>
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<td>2500</td>
<td>3.3</td>
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<td>UA8255-AED</td>
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<td>1.7</td>
<td>0.670</td>
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<td>11.5</td>
<td>2500</td>
<td>5</td>
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</tbody>
</table>

   (1000 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 primary windings measured at 10 kHz, 0.05 Vrms, 0 Adc.
3. Leakage inductance measured between pins 1 and 3 at 100 kHz, 0.1 Vrms with secondary pins shorted.
4. Volt-time product is for primary windings, between pin 1 and 3.
5. One minute isolation (hipot) primary windings to secondary windings.
6. Electrical specifications at 25°C.

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

Schematics

Dimensions are in inches

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Specification subject to change without notice.
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