Isolation Transformer

For Texas Instruments SN6501 Transformer Driver

- Developed to work with Texas Instruments SN6501 Transformer Driver for Isolated Power Supplies
- Center tapped primary and secondary windings
- Designed to meet UL/CSA/IEC 60950 Basic Insulation with 1.5 mm creepage and clearance.

### Core material

**Ferrite**

### Terminations

- RoHS tin-silver over tin over nickel over phos bronze.
- Other terminations available at additional cost.

### Weight

- 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

### Isolation

- 2500 Vrms, one minute, winding to winding

### 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

- **MA5632-AL**
  - 600/13″ machine ready reel. Plastic tape: 24 mm wide, 0.37 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth
- **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.
- **D**
  - 13″ machine ready reel.
- **E**
  - Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
- **E**
  - Non-RoHS tin-lead (63/37).

### Power

- Calculated output power based on 150 kHz operating frequency.
- Power varies depending on application.

### Dimensions

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

### Table

<table>
<thead>
<tr>
<th>Part number¹</th>
<th>Pri/sec voltage</th>
<th>Inductance² min (µH)</th>
<th>DCR max (Ohms)³ pri/sec</th>
<th>Leakage inductance⁴ max (µH)</th>
<th>Volt-time product⁵</th>
<th>Power⁶ (W)</th>
<th>Turns ratio pri : sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA5632-AL_</td>
<td>3.3 V to 5.0 V</td>
<td>17.8</td>
<td>0.086</td>
<td>0.219</td>
<td>0.464</td>
<td>17.6</td>
<td>2.0 1:2</td>
</tr>
</tbody>
</table>

---

¹ When ordering, please specify termination and packaging codes:

- **MA5632-ALD**
  - Termination: L = RoHS compliant tin-silver over tin over nickel over phos bronze.
  - Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
  - 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 D.

² Inductance is tested between pins 4 and 3 at 500 kHz, 0.5 Vrms, 0 Adc.

³ DCR is per winding.

⁴ Leakage inductance is for the primary with both windings connected in series and with the secondary windings shorted.

⁵ Based on Bsat of the core at 25°C and number of turns on winding 4-3.

⁶ Calculated output power based on 150 kHz operating frequency.

---

Coilcraft

www.coilcraft.com

© Coilcraft Inc. 2022

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.