Gate Drive Transformer

For ON Semiconductor NCP1652 and NCP4302

• Designed for ON Semiconductor for use with the NCP1652 PFC Controller and the NCP4302 Flyback Controller.
• Requires only 1.5 cm² of board space
• 1500 Vrms primary to secondary isolation
• Can be used from 20 kHz to 250 kHz.

Core material Ferrite
Terminations RoHS compliant tin-silver (96.5/3.5) over tin over nickel over phosph bronze. Other terminations available at additional cost.

Weight 1.35 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)

Packaging 500/13” reel; Plastic tape: 24 mm wide, 0.36 mm thick, 20 mm pocket spacing, 6.13 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 number¹</th>
<th>Turns ratio</th>
<th>Primary inductance² ±20 % (mH)</th>
<th>Leakage inductance³ max (µH)</th>
<th>Primary DCR max (Ohms)</th>
<th>Secondary DCR max (Ohms)</th>
<th>Volt-time product⁴ (V-µsec)</th>
<th>Capacitance pri to sec⁵ max (pF)</th>
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<tbody>
<tr>
<td>DA2099-AL_</td>
<td>1 : 1</td>
<td>3.79</td>
<td>13.0</td>
<td>2.30</td>
<td>2.85</td>
<td>221</td>
<td>13.0</td>
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1. When ordering, please specify packaging code:

   Packaging: D = 13” machine ready reel. EIA-481 embossed plastic tape (500 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 measured at 100 kHz, 0.3 Vrms, 0 Adc
3. Leakage inductance measured at 100 kHz, 0.3 Vrms with secondary pins shorted.
4. Based on Bsat of the core at 25°C and number of turns of the primary.
5. Capacitance measured at 100 kHz, 0.3 Vrms.
6. Electrical specifications at 25°C.

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

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