Flyback Transformer

For TI TPS55340 DC-DC Regulator

- Developed for Texas Instruments TPS55340 Boost/SEPIC/Flyback DC-DC Regulator
- Designed to operate at 200 kHz with 2.9–32 Volts input
- 1500 Vrms, one minute isolation from primary windings to secondary windings

Core material: Ferrite
Terminations: RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight: 6.5 g
Ambient temperature: −40°C to +85°C
Storage temperature: Component: −40°C to +85°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: 175 per 13″ reel. Plastic tape: 32 mm wide, 0.6 mm thick, 28 mm pocket spacing, 12.93 mm pocket depth

PCB washing: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Power (W)</th>
<th>Inductance at 0 A²</th>
<th>Inductance at Ipk³</th>
<th>DCR max (Ohms)⁴</th>
<th>Leakage inductance max (µH)</th>
<th>Turns ratio⁵</th>
<th>Ipk³ (A)</th>
<th>Output⁷</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA5889-AL_</td>
<td>12</td>
<td>12</td>
<td>10.8</td>
<td>0.03</td>
<td>0.0195</td>
<td>1 : 0.833</td>
<td>5.5</td>
<td>12 V, 1 A</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

NA5889-AL⁶

Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape (175 parts 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 200 kHz, 1.0 Vrms, 0 Adc.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the primary and for the secondary is with windings connected in parallel.
5. Leakage inductance is for the primary and is measured with the secondary shorted.
6. Turns ratio is with the primary and the secondary windings connected in parallel.
7. Output of the secondary is with the windings connected in parallel.

Dimensions are in inches (mm):

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

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