SMT Gate Drive Transformers

- Designed for high switching speed, transformer coupled MOSFET and IGBT gate drive circuits.
- Operating frequency: 50 kHz – 2 MHz
- Primary to secondary isolation: 1500 Vdc. For DA2317-AL and DA2320-AL, isolation between secondaries is 500 Vdc.

Core material  Ferrite
Terminations  RoHS compliant tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight  535 – 580 mg
Ambient temperature  -40°C to +85°C
Storage temperature  Component: -40°C to +85°C.
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  250/7” reel; 1000/13” reel Plastic tape: 16 mm wide, 0.36 mm thick, 20 mm pocket spacing, 5.54 mm pocket depth
PCB washing  Only pure water or alcohol recommended

### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns ratio pri : sec</th>
<th>Primary inductance min (µH)</th>
<th>Leakage inductance min (µH)</th>
<th>Primary DCR max (Ohms)</th>
<th>Secondary DCR max (Ohms)</th>
<th>Volt-time product (V-µsec)</th>
<th>SRF min1 (MHz)</th>
<th>Capacitance pri to sec max (pF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA2319-AL_</td>
<td>1 : 1</td>
<td>296.0</td>
<td>1.5</td>
<td>0.795</td>
<td>0.655</td>
<td>25.8</td>
<td>2.23</td>
<td>14.0</td>
</tr>
<tr>
<td>DA2318-AL_</td>
<td>1.5 : 1</td>
<td>680.0</td>
<td>4.0</td>
<td>1.65</td>
<td>0.860</td>
<td>40.8</td>
<td>1.00</td>
<td>14.0</td>
</tr>
<tr>
<td>DA2320-AL_</td>
<td>1 : 1 : 1</td>
<td>264.0</td>
<td>0.30</td>
<td>1.50</td>
<td>1.50 (2-5; 3-4)</td>
<td>24.5</td>
<td>3.60</td>
<td>95.0</td>
</tr>
<tr>
<td>DA2317-AL_</td>
<td>2 : 1 : 1</td>
<td>330.0</td>
<td>0.60</td>
<td>1.40</td>
<td>0.650 (2-5); 0.790 (3-4)</td>
<td>24.5</td>
<td>4.00</td>
<td>18.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
   DA2320-AL C
   Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (250 parts 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 C instead.
   D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc
3. Leakage inductance measured at 100 kHz, 0.1 Vrms with secondary pins shorted.
4. SRF measured with coils connected in series using an Agilent/HP 4192 or equivalent.
5. Operating temperature range -40°C to +125°C.
6. Electrical specifications at 25°C.

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

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Coilcraft®

Specifications subject to change without notice. Please check our website for latest information.

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