Planar transformer and inductor pair designed for the NSC LM5110 Gate Driver and LM5025 Active Clamp Voltage Mode PWM Controller.

These parts are also specified by NSC for use with their LM5034 Dual Interleaved Controller.

Core material  Ferrite  
Terminations  RoHS Matte-tin over nickel over brass  
Weight  11.3 – 11.7 g  
Ambient temperature  –40°C to +85°C  
Storage temperature  Component: –40°C to +85°C.  
Tape or 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  200 per 13" reel  
Plastic tape: 44 mm wide, 0.37 mm thick, 32 mm pocket spacing, 9.4 mm pocket depth  
PCB washing  Only pure water or alcohol recommended

Transformer

<table>
<thead>
<tr>
<th>Part number¹</th>
<th>Output power (W)</th>
<th>Output voltage (V)</th>
<th>Output current (A rms)</th>
<th>Primary inductance² min (µH)</th>
<th>Leakage inductance³ max (µH)</th>
<th>DCR max (mOhms)</th>
<th>Pri/sec isolation (Vdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0357-BL_</td>
<td>100</td>
<td>3.3</td>
<td>30.0</td>
<td>320.0</td>
<td>0.55</td>
<td>55.0</td>
<td>1500</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

B0357-BLD

Packaging: D = 13” machine ready reel. EIA-481 embossed plastic tape (200 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 D instead.

2. Inductance measured on an Agilent/HP 4284 between pins 1 and 2 at 250 kHz, 0.1 Vrms, 0 Adc.
3. Leakage inductance measured between pins 1 and 2 at 100 kHz, 0.1 Vrms, 0 Adc with secondary pins shorted.
4. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Planar Magnetics for NSC LM5025 and LM5034

Output Inductor

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 at 0 Adc (µH)</th>
<th>DCR max (mOhms)</th>
<th>Isolation3 (Vdc)</th>
<th>Isat4 (A)</th>
<th>Irms5 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0358-CL_</td>
<td>2.0 ±10%</td>
<td>Main: 2.0</td>
<td>1500</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aux: 900.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   Packaging: 
   - D = 13" machine ready reel. EIA-481 embossed plastic tape (200 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 D instead.

2. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at 250 kHz, 0.1 Vrms.

3. Isolation measured from pin 1 to pin 3.

4. DC current at which inductance drops 10% (typ) from its value without current.

5. Electrical specifications at 25°C.

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

Typical L vs Frequency

Typical L vs Current

Recommended Land Pattern

Dimensions are in inches/mm

Parts manufactured prior to December 2011 may be marked differently.