BA60951CS – Flyback Transformer

Features
- Isolated flyback transformer
- Designed for isolated power supplies operating at 120 kHz
- Working voltage: 800 V
- Basic insulation
- 2.25 watts of output power
- RoHS compliant*
- AEC-Q200 compliant

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Primary Inductance @ 250 kHz / 0.1 V ±10 % (µH)</th>
<th>Leakage Inductance @ 250 kHz / 0.1 V (All Sec. Pins Shorted) max. (µH)</th>
<th>Turns Ratio</th>
<th>DCR (Ω) max.</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA60951CS</td>
<td>L (1-2) 25</td>
<td>Lk (1-3) 0.6</td>
<td>P(1-2) : A(3-4) 1.27</td>
<td>P(1-2) : S(8-6) 0.77</td>
<td>Pri (1-2) 0.55</td>
</tr>
</tbody>
</table>

Product Dimensions

![Dimensions Diagram]

Dimensions: MM (INCHES)
- L (1-2): 13.6 (0.535) MAX.
- Lk (1-3): 10.5 (0.413) MAX.
- P(1-2) : A(3-4): 15.9 ± 0.5 (0.63 ± .020)
- P(1-2) : S(8-6): 16.9 ± 0.5 (0.66 ± .020)
- 8 Pins COPLANARITY 0.6 ± 0.15 (0.024 ± .006)
- 8 Pin Configuration 2.0 ± 0.3 (0.079 ± .012)

Recommended Layout

![Layout Diagram]

Electrical Schematic

![Schematic Diagram]

Additional Information

Click these links for more information:
- PRODUCT
- TECHNICAL LIBRARY
- INVENTORY
- SAMPLES
- CONTACT

General Specifications
- Primary Input Voltage: 7-24 V
- Auxiliary Voltage: 9 V, 20 mA
- Secondary Voltage: 15 V, 150 mA
- Primary Rated Current: 1.4 A
- Frequency: 120 kHz
- Hi-Pot Prim/Sec: 2500 Vac / 60 s
- Operating Temperature: -40 °C to +155 °C
- Max. Ambient Temperature: 125 °C
- Storage Temperature: -40 °C to +155 °C
- Compliant to: IEC 61558
- Creepage/Clearance Distance of Primary to Secondary: 8 mm
- Level of Insulation: Basic for a working voltage of 800 V
- Material Group III Pollution degree 2
- Moisture Sensitivity Level: 1

Materials
- Core: Ferrite Wire ... Enameled/triple-insulated copper
- Terminal Finish: Sn
- Packaging: 550 pcs. per 13-inch reel

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov
**BA60951CS – Flyback Transformer**

**Soldering Profile**

![Soldering Profile Diagram]

**Profile Feature** | **Pb-Free Assembly**
---|---
**Average Ramp-Up Rate (T_{max} to T_{p})** | 3 °C / second max.

**PREHEAT:**

- Temperature Min. (T_{min})
- Temperature Max. (T_{max})
- Time (T_{min} to T_{max}) (ts)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Temperature (°C)</th>
<th>Time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>150</td>
<td>60–180</td>
</tr>
<tr>
<td>Max.</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

**TIME MAINTAINED ABOVE:**

- Temperature (T_{L})
- Time (t_{L})

<table>
<thead>
<tr>
<th>Condition</th>
<th>Temperature (°C)</th>
<th>Time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintained</td>
<td>217</td>
<td>60–150</td>
</tr>
</tbody>
</table>

- Peak Temperature (T_{p})
- Time within 5 °C of Actual Peak Temperature (t_{p})
- Ramp-Down Rate
- Time 25 °C to Peak Temperature

<table>
<thead>
<tr>
<th>Condition</th>
<th>Temperature (°C)</th>
<th>Time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>245-250</td>
<td></td>
</tr>
<tr>
<td>5 °C of Actual Peak</td>
<td>20–40</td>
<td></td>
</tr>
<tr>
<td>Ramp-Down Rate</td>
<td>6 °C / second max.</td>
<td></td>
</tr>
<tr>
<td>25 °C to Peak Temperature</td>
<td>8 minutes max.</td>
<td></td>
</tr>
</tbody>
</table>

**Packaging Specifications**

![Packaging Diagram]

**How to Order**

Automotive Grade
Model Number
Surface Mount

**Typical Part Marking**

- Manufacturer’s Trademark
- Model Number
- Date Code
  - YY: Year
  - WW: Week
  - X: Day
    - A: Monday
    - B: Tuesday
    - C: Wednesday
    - D: Thursday
    - E: Friday
    - F: Saturday
    - G: Sunday
  - R: Revision

**Contact Information**

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