SM91542AL BMS Transformer

Features
- Improved design for automation
- Working voltage: 1000 VDC
- Hi-Pot: 4300 VDC
- Single channel with integrated choke
- Functional insulation
- Developed for use with Analog Device’s Model LTC6804/681X, NXP’s Model MC3377X and Texas Instruments Model BQ79616
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

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

Electrical Specifications @ 25 °C

OCL (100 kHz / 0.1 V)
(-40 °C to +125 °C)............ 150-450 µH
Leakage Inductance (100 kHz / 0.1 V)
......................................... 0.5 µH max.
DCR
Transformer Side ............. 0.45 Ω max.
CM Choke Side............... 0.85 Ω max.
Cww.......................... 20 pF max.
Turns Ratio ..................... 1 : 1 ± 2 %
Insertion Loss
4 MHz............................ -0.25 dB max.
Return Loss (Z out = 100 Ω)
4 MHz............................ -22 dB min.
CMRR
1-100 MHz...................... -35 dB min.
100-200 MHz................... -28 dB min.
Hi-pot (1 mA, 60 S)............ 4000 VDC
Working Voltage ............... 1000 VDC
Operating Temperature
.......................... -40 °C to +125 °C
Storage Temperature (Component)
...................................... -50 °C to +125 °C
Moisture Sensitivity Level...... 1
ESD Classification (HBM)........ N/A

Packaging Specification
Tape & Reel.... 800 pcs. per 13-inch reel

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** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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
### Solder Profile

**Profile Feature**

<table>
<thead>
<tr>
<th>Pb-Free Assembly</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Average Ramp-Up Rate</td>
<td>3 °C / second max.</td>
</tr>
<tr>
<td>PREHEAT: Temperature Min. ($T_{smin}$)</td>
<td>150 °C</td>
</tr>
<tr>
<td>Temperature Max. ($T_{smax}$)</td>
<td>200 °C</td>
</tr>
<tr>
<td>Time ($T_{smin}$ to $T_{smax}$)</td>
<td>60~180 seconds</td>
</tr>
<tr>
<td>Liquidus Temperature ($T_{L}$)</td>
<td>217 °C</td>
</tr>
<tr>
<td>Time Above Liquidus Temperature ($t_{L}$)</td>
<td>60~150 seconds</td>
</tr>
<tr>
<td>Peak Temperature ($T_{p}$)</td>
<td>245-250 °C</td>
</tr>
<tr>
<td>Time within 5 °C of Actual Peak Temperature ($t_{p}$)</td>
<td>20~40 seconds</td>
</tr>
<tr>
<td>Ramp-Down Rate from Peak Temperature</td>
<td>6 °C / second max.</td>
</tr>
<tr>
<td>Time 25 °C to Peak Temperature ($T_{p}$)</td>
<td>8 minutes max.</td>
</tr>
<tr>
<td>Do Not Exceed</td>
<td>250 °C</td>
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</tbody>
</table>

### Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.

**END**

<table>
<thead>
<tr>
<th>QTY: 800 PCS. PER REEL</th>
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<tr>
<td>REV. 06/23</td>
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</table>

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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