Features
- Single port Gigabit Ethernet
- Working voltage: 800 V
- Hi-Pot: 4680 VDC
- Design construction: Reinforced insulation per IEC 60664-1 and IEC 62368-1 requirements
- Creepage distance > 8 mm, pollution degree 2, material group CTI I
- Clearance distance > 8 mm, overvoltage category II
- RoHS compliant*

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

Electrical Specifications @ 25 °C
OCL (100 kHz / 0.1 V, 8 mA DC Bias)
(-40 °C to +105 °C)............ 350 µH min.
Leakage Inductance (100 kHz/0.1 V)
........................................... 0.35 µH max.
DCR
Transformer Side ............ 0.90 Ω max.
CM Choke Side ............... 1.30 Ω max.
Turns Ratio ...................... 1 : 1 ± 2 %
Insertion Loss
1-60 MHz........................ -1.0 dB max.
60-100 MHz...................... -1.5 dB max.
100-125 MHz.................... -2.0 dB max.
Return Loss (Z out = 100 Ω)
1–30 MHz...................... -13.0 dB min.
30–45 MHz...................... -10.0 dB min.
45–60 MHz...................... -8.0 dB min.
60–80 MHz...................... -6.0 dB min.
80–100 MHz..................... -5.0 dB min.
100–125 MHz................... -4.0 dB min.
Common Mode Rejection
1–100 MHz...................... -25.0 dB min.
Cross Talk (Between each channel):
1 MHz.......................... -58 dB min.
5–100 MHz...................... -30+20*LOG10

Hi-POT (1 mA, 60 S)............. 4680 VDC
Working Voltage............... up to 800 V
Operating Temperature
........................................... -40 °C to +105 °C
Storage Temperature (Component)
........................................... -50 °C to +125 °C
Moisture Sensitivity Level........... 1
ESD Classification (HBM)........... N/A

Packaging Specification
Tape & Reel..... 200 pcs. per 13-inch reel

Recommended Layout

How To Order
SM91604 L - E
Model
RoHS Compliancy Designator
Packaging
E = 200 pcs. per 13-inch Reel

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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Users should verify actual device performance in their specific applications.
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SM91604L LAN Transformer

Electrical Schematic

<table>
<thead>
<tr>
<th>MCT1</th>
<th>1</th>
<th></th>
<th>24</th>
<th>TCT1</th>
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</thead>
<tbody>
<tr>
<td>MX1+</td>
<td>2</td>
<td></td>
<td>23</td>
<td>TD1+</td>
</tr>
<tr>
<td>MX1-</td>
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<td>22</td>
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<td>MCT2</td>
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<td></td>
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<td>TCT2</td>
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<tr>
<td>MX2+</td>
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<td>TD2+</td>
</tr>
<tr>
<td>MX2-</td>
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<tr>
<td>MX4-</td>
<td>12</td>
<td></td>
<td>13</td>
<td>TD4-</td>
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</table>

Reflow Solder Profile

<table>
<thead>
<tr>
<th>Profile Feature</th>
<th>Pb-Free Assembly</th>
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</thead>
<tbody>
<tr>
<td>Average Ramp-Up Rate</td>
<td>3 °C / second max.</td>
</tr>
<tr>
<td>PREHEAT:</td>
<td></td>
</tr>
<tr>
<td>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>
</tr>
</tbody>
</table>

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SM91604L LAN Transformer

Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.

![Diagram of packaging specifications]

END

START

TRAILER NO COMPONENT

QTY: 200 PCS. PER REEL

USER DIRECTION OF FEED

QTY: 200 PCS. PER REEL

Dimensions: MM (INCHES)

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