CSM0645D Series
SMD WIRE WOUND POWER INDUCTORS (SHIELDED)
Rev. A

A. Electrical Specifications:

<table>
<thead>
<tr>
<th>P/N</th>
<th>Marking</th>
<th>Inductance @100KHz (μH)</th>
<th>Inductance Tolerance</th>
<th>DCR ±20% (Ω)</th>
<th>Rated Current (A)</th>
<th>SRF Min. (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSMS0645D-1R0N</td>
<td>1R0</td>
<td>1.0</td>
<td>N</td>
<td>0.014</td>
<td>9.800</td>
<td>110</td>
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<tr>
<td>CSMS0645D-1R3N</td>
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<td>N</td>
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<td>CSMS0645D-2R3N</td>
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<td>CSMS0645D-3R0N</td>
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<td>M</td>
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<td>CSMS0645D-100M</td>
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<td>M</td>
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<tr>
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<td>M</td>
<td>0.070</td>
<td>2.500</td>
<td>10</td>
</tr>
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<td>0.107</td>
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<td>CSMS0645D-330M</td>
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<td>CSMS0645D-470M</td>
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<td>4</td>
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<td>CSMS0645D-101M</td>
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<td>100</td>
<td>M</td>
<td>0.466</td>
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</tr>
</tbody>
</table>

B. Dimensions: mm (Inch)

| Series           | a     | b     | c     | d     | e     | f     | g     | h     | i     | k     | m     | n     |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CSMS0645D        | 6.0   | (0.236)| 6.0   | (0.236)| 4.5   | (0.177)| 1.35  | (0.053)| 2.3   | (0.091)| 4.0   | (0.157)| 4.8   | (0.189)| 0.3   | (0.012)| 1.6   | (0.063)| 5.2   | (0.205)| 5.7   | (0.224)| 4.7   | (0.185)|
| Tolerance        | ±0.2  | (0.008)| ±0.2  | (0.008)| Max.  | (Typ.)| ±0.2  | (0.008)| Typ.  | (Typ.)| Typ.  | (Typ.)| Typ.  | (Typ.)| Typ.  | (Typ.)| Typ.  | (Typ.)| Typ.  | (Typ.)| Typ.  | (Typ.)|

C. General Information:

2. Tolerance “_”: N = ± 30%, M = ± 20%.
3. Magnetically shielded.
4. High saturation current.
5. Storage temperature: -40ºC to +85ºC.
7. Inductance measured using the HP4285A and Chroma1320 & 3302.
8. DCR measured using Chroma 16502.
9. SRF measured using the HP4291B.
10. Saturation Current Idc1: The value of current causes a 30% Inductance reduction from initial value. (at 20ºC ambient)
11. Temperature rise current Idc2: The value of current causes a 40ºC temperature rise. (at 20ºC ambient)
12. Rated Current: Either Idc1 or Idc2 whichever is smaller.
13. MSL: Level 1.
14. Inductance and Current range: From 1.0 µH (4.5 A) to 100.0 µH (0.75 A).

D. Applications:

1. Game Consoles
2. Set Top Boxes
3. Cables Modems
4. Computers
5. Mobile Communication Devices (Cell Phones, Radios, etc.)
6. PDA, LCD, DVD, BRP, HD.

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Page 1 of 2
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E. Characteristics Curve:

![Inductance vs. Frequency Graph]

![Inductance vs. DC Current Graph]

F. Supplementary Information:

1. Packaging Information

   **CARRIER TAPE REELS**

   **TAPE DIMENSIONS (mm)**

   ![Tape Dimensions Diagram]

<table>
<thead>
<tr>
<th>Series</th>
<th>Reel dimensions (mm)</th>
<th>Tape dimensions (mm)</th>
<th>Parts per reel</th>
<th>Quantity per</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/N</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>CSMS0645D</td>
<td>330</td>
<td>80</td>
<td>13</td>
<td>18.5</td>
</tr>
</tbody>
</table>

2. RoHS Reflow Solder Profile

![Typical RoHS Reflow Profile Graph]