**Outline:**

- Assemblage design, sturdy structure.
- High inductance, high current, low magnetic loss, low ESR, small parasitic capacitance.
- Flat wire winding, achieve a low D.C. Resistance.
- Temperature rise current and saturation current is less influenced by environment.
- Operating temperature: -40°C ~ +125°C (Including coil’s temperature rise)

**1 Appearance and dimensions (mm)**

<table>
<thead>
<tr>
<th>Code Marking</th>
<th>32.0±1.0</th>
<th>18.5±0.5</th>
<th>6.0±0.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34.5Max</td>
<td>22.5±1.0</td>
<td>4.0Max</td>
</tr>
<tr>
<td></td>
<td>23.5</td>
<td>7.0</td>
<td>17.25</td>
</tr>
<tr>
<td></td>
<td>6.0</td>
<td>12.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**2 Marking**

In contrast to this, the figure is dedicated to providing a comprehensive overview of the high current power inductor, specifically the CSCF3218 Series. The design emphasizes a robust structure for reliable performance. The inductor is engineered to offer high inductance, enabling it to handle high currents efficiently while maintaining low magnetic loss and ESR, which is beneficial for applications requiring low parasitic capacitance.

- Flat wire winding is employed to achieve a low D.C. Resistance, ensuring minimal loss during operation.
- The temperature rise current and saturation current are less influenced by environmental conditions, enhancing the inductor's reliability and durability.
- The operating temperature range is -40°C to +125°C, accommodating a wide range of applications.

**3 Reference land pattern (mm)**

- The schematic provides a detailed view of the land pattern, facilitating easy implementation in circuit designs.

**Schematic**

[Diagram of Reference land pattern]

**SHENZHEN CODACA ELECTRONIC CO., LTD**

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E-mail: codaca@codaca.com.cn
5 Electrical characteristics

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Inductance (μH)</th>
<th>D.C.R. (mΩ)</th>
<th>Saturation current (A)</th>
<th>Temperature rise current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±20%</td>
<td>Typical</td>
<td>Max</td>
<td>Typical</td>
</tr>
<tr>
<td>CSCF3218-3R3MC</td>
<td>3.30</td>
<td>1.00</td>
<td>1.20</td>
<td>86.0</td>
</tr>
<tr>
<td>CSCF3218-170MC</td>
<td>17.0</td>
<td>3.50</td>
<td>4.20</td>
<td>35.0</td>
</tr>
</tbody>
</table>

All data is tested based on 25°C ambient temperature.

※1 Inductance measure condition at 100kHz, 0.1V.
电感测试条件为100kHz, 0.1V。

※2 Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.
饱和电流：电感值下降其初始值的20%时所加载的实际直流电流值。

※3 Temperature rise current: the actual value of DC current when the temperature rise is ΔT40°C(Ta=25°C).
温升电流：使产品温度上升到ΔT40°C时所加载的实际直流电流值(Ta=25°C)。

※ Special remind: Circuit design, component placement, PWB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.
特别提醒：线路设计，组件布局，印刷线路板(PWB)尺寸及厚度，散热系统等均会影响产品温度。
请务必在最终应用时，验证产品发热状况。

6 Saturation current VS temperature rise current curve

饱和电流 VS 温升电流曲线
7 Packing specification
包装规格
7.1 Plastic tray dimensions (mm)
吸塑盘尺寸
High Current Power Inductor  
- CSCF3218 Series

7.2 Packing
包装

7.3 Carton dimensions and packing quantity
包装箱尺寸和包装数量

<table>
<thead>
<tr>
<th>Product Series</th>
<th>Quantity / Tray</th>
<th>Quantity / Bundle</th>
<th>Out Carton Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCF3218</td>
<td>9pcs</td>
<td>(9×9) = 81pcs</td>
<td>(81×1) = 81pcs</td>
</tr>
</tbody>
</table>

7.4 Label making
标签标识

The following items will be marked on the tray of product label and shipping label.
以下项目将明确标识于产品吸塑盘标签以及运输标签上。

Production Label
产品标签
- Part No.  产品型号
- Electrical Information  产品电性信息
- Quantity  数量
- Packing No. 包装流水号

Shipping Label
运输标签
- Customer Name  客户名称
- Customer Part No. 客户型号
- Supplier Part No. 供应商型号
- Supplier Name  供应商名称
- Country of origin 产品产地

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8 Soldering specification
焊接规格

8.1 Reflow profile for SMT components
SMT 回流焊温度曲线

8.2 Classification of peak package body temperature (T_P)
封装体峰值温度（T_P）分类

<table>
<thead>
<tr>
<th>Package Thickness 封装厚度</th>
<th>Package Volume 封装体积</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;350 mm³</td>
</tr>
<tr>
<td>PB-Free Assembly  无铅装配</td>
<td></td>
</tr>
<tr>
<td>&lt;1.6mm</td>
<td>260°C</td>
</tr>
<tr>
<td>1.6～2.5mm</td>
<td>260°C</td>
</tr>
<tr>
<td>≥2.5mm</td>
<td>250°C</td>
</tr>
</tbody>
</table>

※: Reflow is referred to standard IPC/JEDEC J-STD-020D.
回流焊参照标准 IPC/JEDEC J-STD-020D。