High Current Power Inductor
- CPT3020 Series

Outline:
产品概要
- Magnetic shielded structure: excellent resistance to electromagnetic interference (EMI)
磁屏蔽结构: 抗电磁干扰 (EMI) 性能强
- Assemblage design, sturdy structure.
组合式设计, 结构坚固。
- High inductance, high current, low magnetic loss, low ESR, small parasitic capacitance.
高电感值, 大电流, 低磁损, 低阻抗, 寄生电容小。
- High temperature wire, closed magnetic circuit, ultra low buzz noise.
耐高温铜线, 磁路闭合, 超低蜂鸣噪音。
- Operating temperature: -40°C ～ +125°C
工作温度: -40°C ～ +125°C (包含线圈发热)

1 Appearance and dimensions (mm)
外形尺寸

2 Marking
印字标识

3 Reference hole pattern (mm)
参考焊孔尺寸

4 Schematic
原理图
### 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>CPT3020-100M</td>
<td>10.0</td>
<td>1.45</td>
<td>1.70</td>
<td>30.0</td>
</tr>
</tbody>
</table>

- All data is tested based on 25°C ambient temperature.
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| 1 | Inductance measure condition at 100kHz, 0.1V.
| 2 | Saturation current: the actual value of DC current when the inductance decrease 30% of its initial value.
| 3 | Temperature rise current: the actual value of DC current when the temperature rise is ΔT40°C(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.

### 6 Saturation current VS temperature rise current curve

- 饱和电流 VS 温升电流曲线

![Saturation current VS temperature rise current curve](image)