

## SMD High Current Molded Inductors - FCH1365- Series

FCH1365-Series

**●Features:**

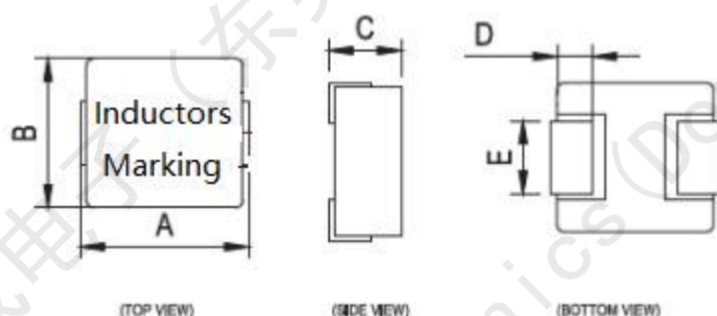
- Ultra low cost
- Shielded constructions
- High current rating up to DC 40Amp
- High frequency range up to 5MHz
- Very low DC resistance
- Low Noise
- RoHS compliant

**●Applications:**

- PDA/Notebook/Desktop/Server applications
- DC/DC converter

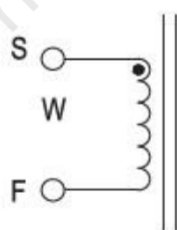


### 1.Shapes and Dimensions ( 形状及尺寸 )

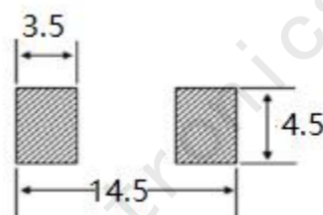


| Type    | A        | B        | C       | D       | E       |
|---------|----------|----------|---------|---------|---------|
| FCH1365 | 13.7±0.3 | 12.8±0.3 | 6.5 MAX | 2.7±0.3 | 3.8±0.3 |

### 2.Schematic:



### 3.layout recommendation:(mm)



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4. FCH1365 -Series:

| Part Number<br>(品名) | Inductance<br>(uH) ±20%<br>(电感值) | DCR(mΩ)<br>(直流阻抗) |       | Isat<br>DC Current<br>(A)<br>(饱和电流) | Irms<br>DC Current<br>(A)<br>(温升电流) |
|---------------------|----------------------------------|-------------------|-------|-------------------------------------|-------------------------------------|
|                     |                                  | Typical           | MAX   | Typical                             | Typical                             |
| FCH1365-R22M        | 0.22                             | 0.7               | 1.0   | 52.0                                | 40.0                                |
| FCH1365-R33M        | 0.33                             | 0.8               | 1.1   | 50.0                                | 38.0                                |
| FCH1365-R47M        | 0.47                             | 0.9               | 1.2   | 48.0                                | 37.0                                |
| FCH1365-R56M        | 0.56                             | 1.0               | 1.4   | 46.0                                | 36.0                                |
| FCH1365-R68M        | 0.68                             | 1.2               | 1.6   | 40.0                                | 30.0                                |
| FCH1365-R82M        | 0.82                             | 1.3               | 1.8   | 38.0                                | 29.0                                |
| FCH1365-1R0M        | 1.00                             | 1.6               | 2.0   | 42.0                                | 29.0                                |
| FCH1365-1R5M        | 1.50                             | 2.4               | 3.2   | 32.0                                | 25.0                                |
| FCH1365-2R2M        | 2.20                             | 2.8               | 3.5   | 26.0                                | 24.0                                |
| FCH1365-3R3M        | 3.30                             | 4.8               | 5.3   | 23.0                                | 19.0                                |
| FCH1365-4R7M        | 4.70                             | 7.5               | 8.6   | 23.0                                | 17.0                                |
| FCH1365-5R6M        | 5.60                             | 9.2               | 11.0  | 18.0                                | 15.0                                |
| FCH1365-6R8M        | 6.80                             | 10.5              | 12.1  | 16.0                                | 13.0                                |
| FCH1365-8R2M        | 8.20                             | 11.0              | 18.0  | 15.0                                | 12.0                                |
| FCH1365-100M        | 10.00                            | 16.0              | 20.0  | 13.0                                | 11.0                                |
| FCH1365-150M        | 15.00                            | 22.0              | 30.0  | 12.0                                | 10.0                                |
| FCH1365-220M        | 22.00                            | 32.0              | 45.0  | 10.0                                | 6.5                                 |
| FCH1365-330M        | 33.00                            | 45.0              | 59.0  | 7.0                                 | 6.0                                 |
| FCH1365-470M        | 47.00                            | 63.0              | 75.0  | 7.0                                 | 6.0                                 |
| FCH1365-560M        | 56.00                            | 80.0              | 95.0  | 6.0                                 | 5.0                                 |
| FCH1365-680M        | 68.00                            | 85.0              | 103.0 | 5.5                                 | 4.5                                 |
| FCH1365-820M        | 82.00                            | 96.0              | 140.0 | 4.5                                 | 4.0                                 |
| FCH1365-101M        | 100.00                           | 105.0             | 145.0 | 4.5                                 | 4.0                                 |
| FCH1365-151M        | 151.00                           | 180.0             | 220.0 | 4.0                                 | 3.5                                 |

Remark:

<1>Inductance: 100KHz 0.1V

<2>Tolerance of inductance:±20%

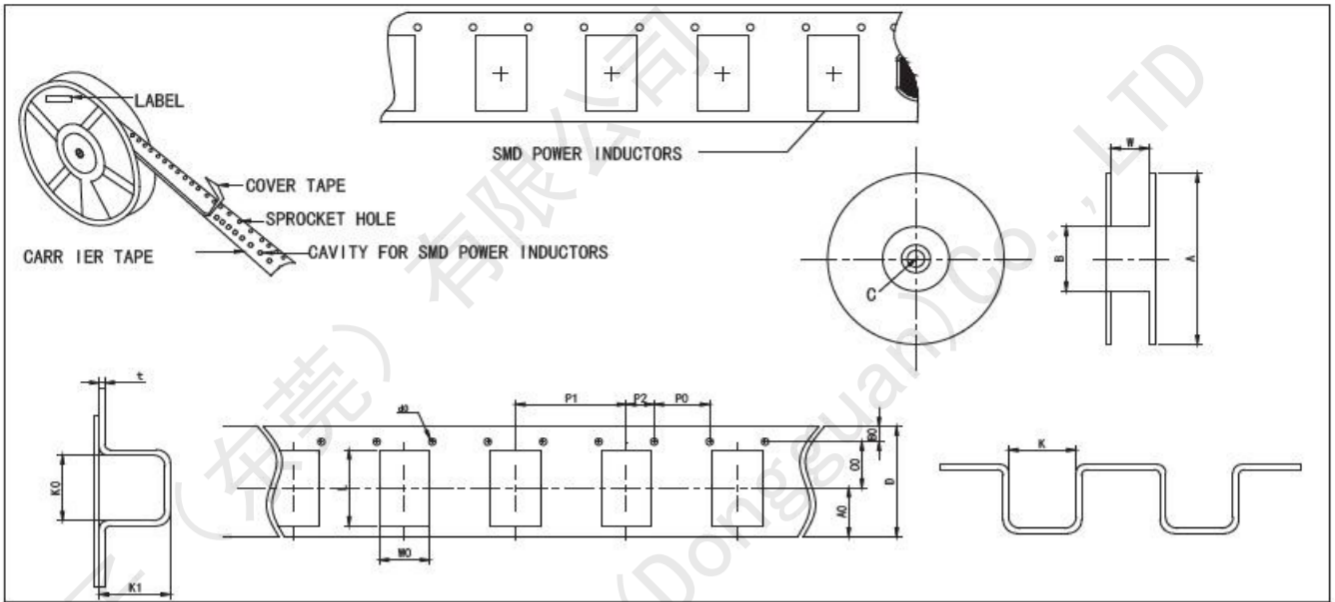
<3>Isat: The value of current indicates that inductance drops 30% (Typical) from its initial value

<4>Irms: The value of current indicates that the temperature of the coil is increase 40°C (Typical)

<5>Test condition: Ta= 25°C

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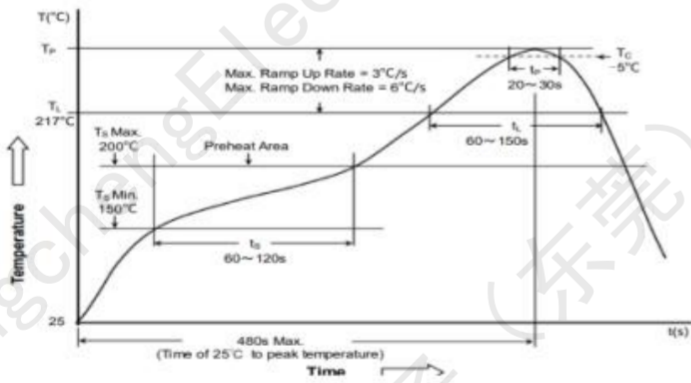
### 5.FCH1365-Series



#### ●Reel Dimensions & Packing Unit(卷轴尺寸及包装数量)

| Part Number<br>品名 | Dimensions of Reel<br>卷轴尺寸 |            |          |           | Packaging Unit<br>包装数 |
|-------------------|----------------------------|------------|----------|-----------|-----------------------|
|                   | A                          | B          | C        | W         |                       |
| FCH1365           | 330                        | 100.0±2.00 | 13.5±1.0 | 24.0±0.50 | 500pcs/r              |

### 6. Reflow Profile for SMT Components



|                          | Package Thickness<br>封装厚度 | Package Volume<br>封装体积 |                          |                       |
|--------------------------|---------------------------|------------------------|--------------------------|-----------------------|
|                          |                           | <350 mm <sup>3</sup>   | 350~2000 mm <sup>3</sup> | >2000 mm <sup>3</sup> |
| PB-Free Assembly<br>无铅装配 | <1.6mm                    | 260°C                  | 260°C                    | 260°C                 |
|                          | 1.6~2.5mm                 | 260°C                  | 250°C                    | 245°C                 |
|                          | ≥2.5mm                    | 250°C                  | 245°C                    | 245°C                 |

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

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