

## SMD High Current Molded Inductors - FCH0420 - Series

FCH0420-Series

### ●Features:

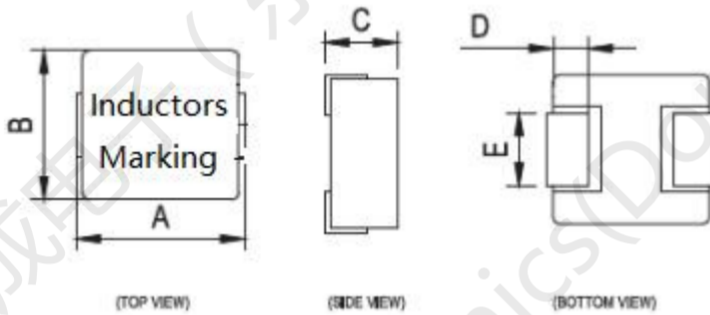
- Ultra low cost
- Shielded constructions
- High frequency range up to 5MHz
- Very low DC resistance
- Low Noise
- RoHS compliant

### ●Applications:

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

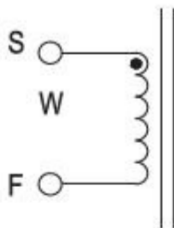


### 1.Shapes and Dimensions (形状及尺寸)

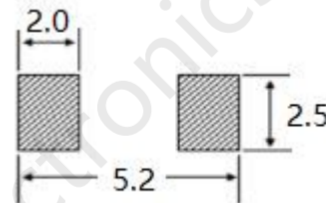


| Type    | A       | B       | C       | D       | E       |
|---------|---------|---------|---------|---------|---------|
| FCH0420 | 4.6±0.3 | 4.1±0.3 | 2.0 MAX | 1.1±0.3 | 2.0±0.3 |

### 2. Schematic:



### 3. layout recommendation: (mm)



## SMD High Current Molded Inductors -FCH0420- Series

### 4.FCH0420-Series:

| Part Number<br>(品名) | Inductance<br>(uH) $\pm 20\%$<br>(电感值) | DCR(m $\Omega$ )<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                             |
| FCH0420-R10Y        | 0.1 $\pm 30\%$                         | 3.8                        | 4.2  | 15.0                                | 14.0                                |
| FCH0420-R22M        | 0.22                                   | 4.0                        | 6.3  | 13.0                                | 8.0                                 |
| FCH0420-R33M        | 0.33                                   | 7.2                        | 9.6  | 11.0                                | 7.0                                 |
| FCH0420-R47M        | 0.47                                   | 10                         | 12   | 10.0                                | 6.5                                 |
| FCH0420-R56M        | 0.56                                   | 11                         | 14.0 | 9.0                                 | 6.5                                 |
| FCH0420-R68M        | 0.68                                   | 17                         | 20   | 8.0                                 | 5.0                                 |
| FCH0420-1R0M        | 1.00                                   | 23                         | 27   | 7.0                                 | 5.0                                 |
| FCH0420-1R2M        | 1.20                                   | 24                         | 29   | 6.5                                 | 5.0                                 |
| FCH0420-1R5M        | 1.50                                   | 30                         | 36   | 6.5                                 | 4.5                                 |
| FCH0420-2R2M        | 2.20                                   | 41                         | 49   | 5.0                                 | 4.0                                 |
| FCH0420-3R3M        | 3.30                                   | 62                         | 76   | 4.0                                 | 3.5                                 |
| FCH0420-4R7M        | 4.70                                   | 101                        | 127  | 3.5                                 | 3.0                                 |
| FCH0420-5R6M        | 5.60                                   | 126                        | 150  | 3.0                                 | 2.5                                 |
| FCH0420-6R8M        | 6.80                                   | 137                        | 157  | 2.5                                 | 2.2                                 |
| FCH0420-8R2M        | 8.20                                   | 145                        | 180  | 2.5                                 | 2.0                                 |
| FCH0420-100M        | 10.00                                  | 181                        | 243  | 2.0                                 | 1.8                                 |
| FCH0420-150M        | 15.00                                  | 280                        | 330  | 1.5                                 | 1.4                                 |
| FCH0420-220M        | 22.00                                  | 401                        | 500  | 1.3                                 | 1.2                                 |

**Remark:**

<1>Inductance: 100KHz 0.1V

<2>Tolerance of inductance: $\pm 20\%$

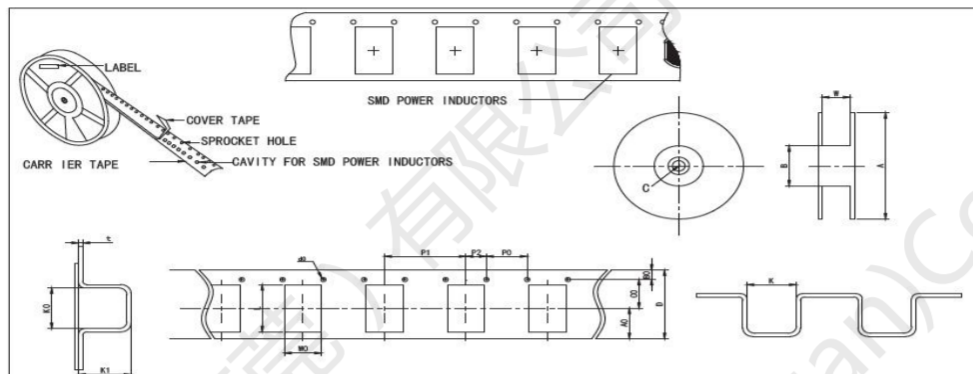
<3>Isat: The value of current indicates that inductance drops 30%(Typical) from its initial value

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

<5>Test condition: Ta= 25°C

## SMD High Current Molded Inductors -FCH0420- Series

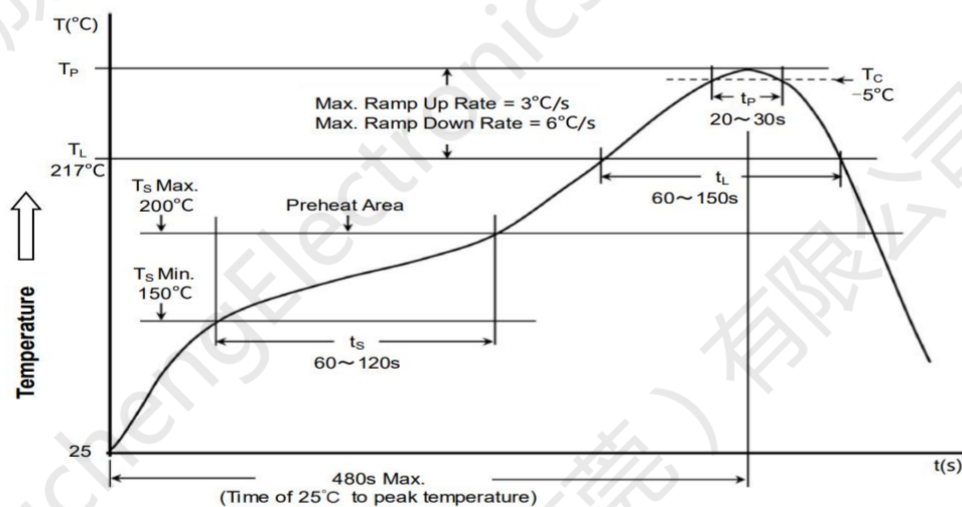
### 5.FCH0420-Series



#### 5.1●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         |                       |
| FCH0420           | 330                        | 100.0±1.00 | 13.0±1.0 | 12.5±0.20 | 3000pcs/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。