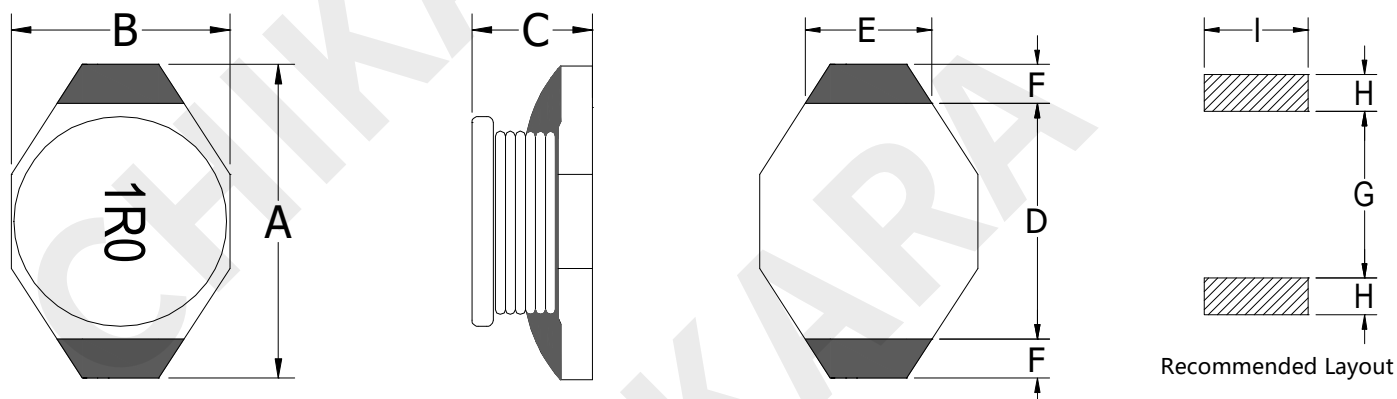


### Features

- High energy storage and very low resistance
- Storage temperature range:-55°C to + 125°C
- Operating temperature range:-55°C to + 125°C  
(including coil's self-temperature rise)
- Moisture sensitivity level:1
- Packaging:2000pcs. Per 13-inch reel
- RoHs&Halogen-free compliant



### Mechanical Dimension(Unit:mm)



| A       | B        | C        | D       | E        | F        | G   | H   | I   |
|---------|----------|----------|---------|----------|----------|-----|-----|-----|
| 6.6Max. | 4.45Max. | 2.92Max. | 4.8Ref. | 2.34Ref. | 0.78Ref. | 4.1 | 1.4 | 3.6 |

### Part Number Description

SP08 - 0703 1R0 M  
① ② ③ ④

|   |                  |
|---|------------------|
| ① | Type             |
| ② | Dimensions       |
| ③ | Inductance value |
| ④ | Tolerance code   |

### Electrical Schematic

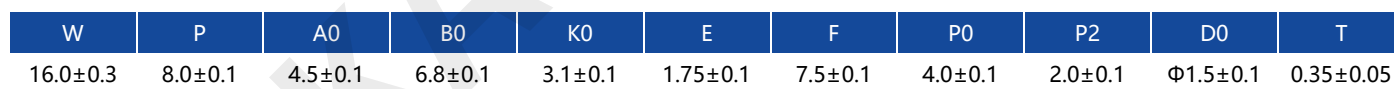


### Electrical Characteristic

| Part Number   | Inductance<br>L0(uH) | SRF<br>(MHz)Typ. | DCR<br>(Ω)Max. | Isat<br>(A)Max. | Irms<br>(A)Max. |
|---------------|----------------------|------------------|----------------|-----------------|-----------------|
| SP08-07031R0M | 1.0±20%              | 130              | 0.05           | 2.90            | 2.90            |
| SP08-07031R5M | 1.5±20%              | 115              | 0.05           | 2.60            | 2.80            |
| SP08-07032R2M | 2.2±20%              | 90               | 0.07           | 2.30            | 2.40            |
| SP08-07033R3M | 3.3±20%              | 70               | 0.08           | 2.00            | 2.00            |
| SP08-07034R7M | 4.7±20%              | 50               | 0.09           | 1.50            | 1.50            |
| SP08-07036R8M | 6.8±20%              | 45               | 0.13           | 1.20            | 1.40            |
| SP08-0703100M | 10±20%               | 35               | 0.16           | 1.10            | 1.30            |
| SP08-0703150M | 15±20%               | 30               | 0.23           | 0.90            | 1.20            |
| SP08-0703220M | 22±20%               | 20               | 0.37           | 0.70            | 0.80            |
| SP08-0703330M | 33±20%               | 15               | 0.51           | 0.58            | 0.60            |
| SP08-0703470M | 47±20%               | 14               | 0.64           | 0.50            | 0.50            |
| SP08-0703680M | 68±20%               | 11               | 0.86           | 0.40            | 0.40            |
| SP08-0703101K | 100±10%              | 9.0              | 1.30           | 0.31            | 0.30            |
| SP08-0703151K | 150±10%              | 6.0              | 2.00           | 0.27            | 0.25            |
| SP08-0703221K | 220±10%              | 5.5              | 3.10           | 0.22            | 0.20            |
| SP08-0703331K | 330±10%              | 5.0              | 3.80           | 0.18            | 0.16            |
| SP08-0703471K | 470±10%              | 4.0              | 5.10           | 0.16            | 0.15            |
| SP08-0703681K | 680±10%              | 3.0              | 9.20           | 0.14            | 0.12            |
| SP08-0703102K | 1000±10%             | 2.0              | 14.0           | 0.10            | 0.07            |

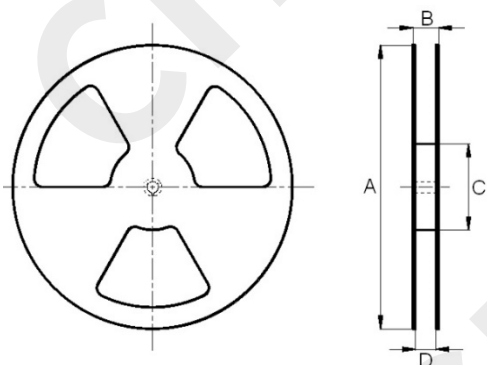
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

- Carrier Tape (Unit:mm)



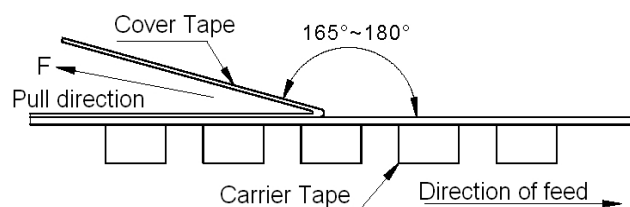
- Reel (Unit:mm)

| A        | B        | C        | D        |
|----------|----------|----------|----------|
| Φ330±1.0 | 22.1Max. | Φ100±1.0 | 16.5±0.5 |

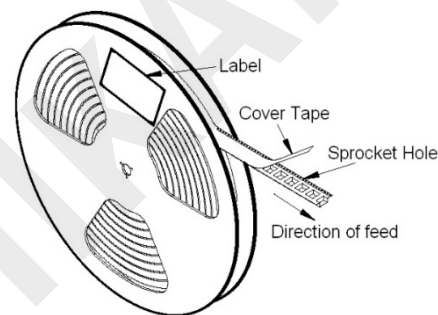


- Taping Method

| Peel-off strength | Peel-off angle | Peel-off speed |
|-------------------|----------------|----------------|
| F=0.1N~1.3N       | 165°~180°      | 300mm/min.     |



✖ Packing is referred to the international standard IEC 60286-3.

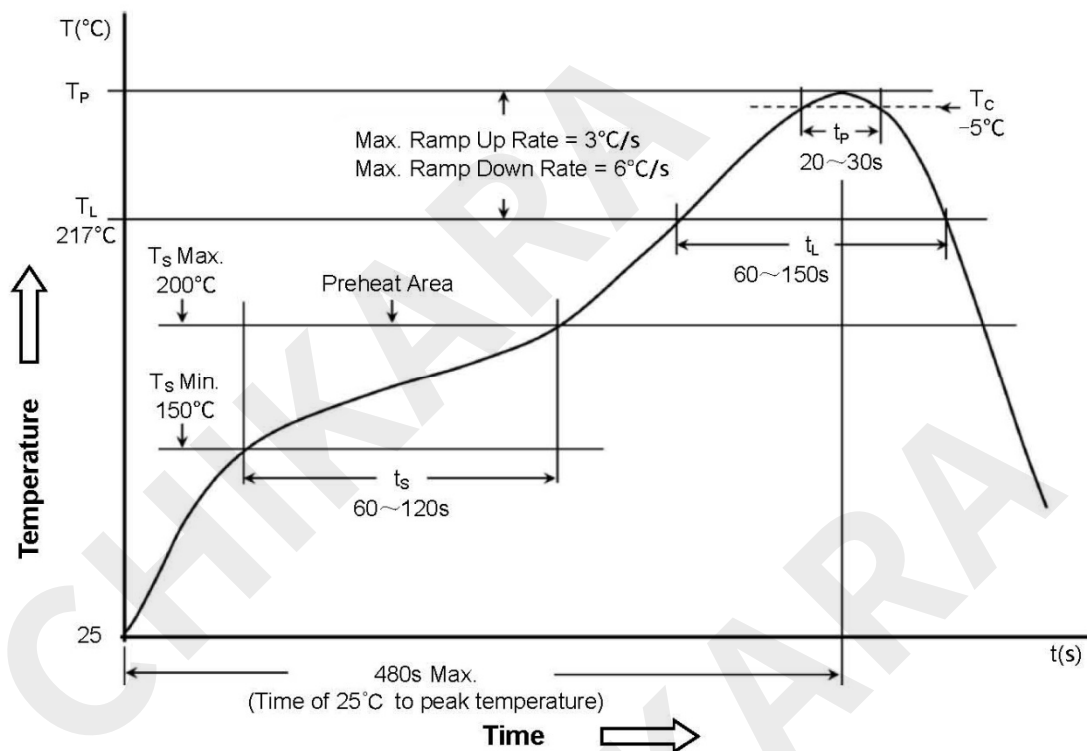


- Package Quantity

Parts per reel  
2000Pcs

### Soldering Specification

- Reflow profile for SMT components



- Classification of peak package body temperature ( $T_p$ )

|                  | Package Thickness | Package Volume      |                         |                      |
|------------------|-------------------|---------------------|-------------------------|----------------------|
|                  |                   | <350mm <sup>3</sup> | 350~2000mm <sup>3</sup> | >2000mm <sup>3</sup> |
| PB-Free Assembly | <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.