

RoHS & Halogen Free & REACH Compliance.

**SPECIFICATION FOR APPROVAL**

Customer : \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Drawing No : \_\_\_\_\_

Quantity : 1 Pcs. Date : 2022/03/23

Chilisin P/N : SDS0804T-221M-N

| SPECIFICATION<br>ACCEPTED BY: |  |
|-------------------------------|--|
| COMPONENT<br>ENGINEER         |  |
| ELECTRICAL<br>ENGINEER        |  |
| MECHANICAL<br>ENGINEER        |  |
| APPROVED                      |  |
| REJECTED                      |  |

|  |  |
|--|--|
| <p><b>奇力新電子股份有限公司</b><br/>Chilisin Electronics Corp<br/>No. 29, Alley 301, Tehhsin Rd.,<br/>Hukou, Hsinchu 303, Taiwan<br/>TEL : +886-3- 599-2646<br/>FAX : +886-3- 599-9176<br/>E-mail : sales@chilisin.com<br/>http : //www.chilisin.com</p>                           | <p><b>東莞奇力新電子(東莞廠)有限公司</b><br/>Chilisin Electronics (Dongguan) Co., Ltd.<br/>No. 78, Puxing Rd., Yuliangwei Administration Area,<br/>Qingxi Town, Dongguan City, Guangdong, China<br/>TEL : +86-769-8773-0251~3<br/>FAX : +86-769-8773-0232<br/>E-mail : cect@chilisin.com</p> |
| <p><b>奇力新電子(越南廠)有限公司</b><br/>Chilisin Electronics (Vietnam) Limited<br/>No 143 - 145, Road No 10, VSIP Hai Phong,<br/>Lap Le Commune, Thuy Nguyen Dist,<br/>Haiphong City, Vietnam<br/>Tel : 84-316 255 688 Fax : 84-316 255<br/>689<br/>E-mail : sales@chilisin.com</p> | <p><b>奇力新電子(湖南廠)有限公司</b><br/>HuNan Chilisin Electronics Technology Co., Ltd<br/>No. 8, Shaziao Liangshuijing Town, Yuanling<br/>County, Huaihua City, Hunan Province 419601,<br/>China<br/>Tel : 86-745-867-5882<br/>E-mail : cect@chilisin.com</p>                            |

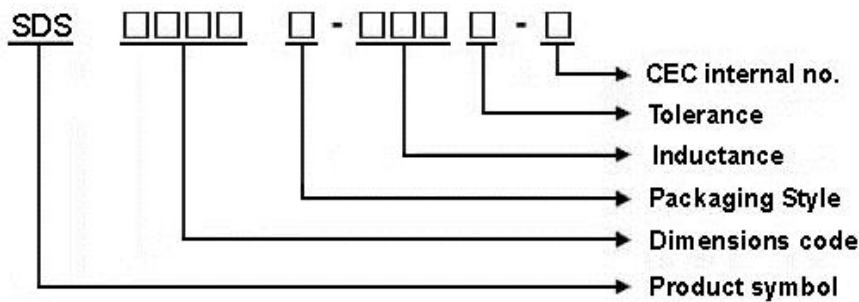
  

|                                 |                               |                                |
|---------------------------------|-------------------------------|--------------------------------|
| Applied by<br><b>KOE028 季雅琦</b> | Checked by<br><b>R024 郭俊良</b> | Approved by<br><b>R028 葉信賢</b> |
|---------------------------------|-------------------------------|--------------------------------|

## SDS0804T Series Specification

**1 Scope:** This specification applies to SMD Shielded Power Inductors

**2 Part Numbering:**



**3 Rating:**

Operating Temperature: - 4 0 °C ~ 1 2 5 °C(Including self - temperature rise)

Storage Temperature: 2 0 °C ~ 2 5 °C R.H. 6 5 %(In Tape & Reel Condition)

**4 Marking:**



**Ex : SDS0804T-100M-N**

**Marking : 100**

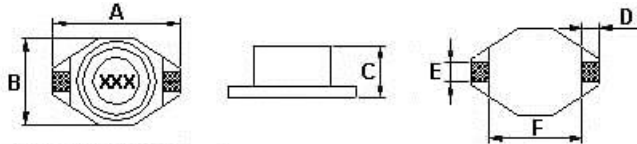
**Marking color : Black**

**5 Standard Testing Condition**

|             | Unless otherwise specified       | In case of doubt |
|-------------|----------------------------------|------------------|
| Temperature | Ordinary Temperature(15 to 35°C) | 20 to 30°C       |
| Humidity    | Ordinary Humidity(25 to 85% RH)  | 50 to 80 %RH     |

## SDS0804T Series Specification

### 6 Configuration and Dimensions:



Dimensions in mm

| TYPE    | A          | B        | C         | D    | E    | F    |
|---------|------------|----------|-----------|------|------|------|
| SDS0804 | 12.95 Max. | 9.4 Max. | 5.08 Max. | 2.54 | 2.54 | 7.62 |

### 7 Electrical Characteristics:

| Part No.        | Inductance (uH) | Test Freq. (kHz) | RDC (Ω)Max. | I <sub>rms</sub> (A) | I <sub>sat</sub> (A) | SRF (MHz) Typ. | Q Freq. Min. (kHz) | Marking |
|-----------------|-----------------|------------------|-------------|----------------------|----------------------|----------------|--------------------|---------|
| SDS0804T-1R0M-N | 1               | 100kHz,0.1V      | 0.021       | 5                    | 5.6                  | 110            | 3/100              | 1R0     |
| SDS0804T-1R5M-N | 1.5             | 100kHz,0.1V      | 0.022       | 4.5                  | 5.2                  | 90             | 5/100              | 1R5     |
| SDS0804T-2R2M-N | 2.2             | 100kHz,0.1V      | 0.032       | 3.8                  | 5                    | 60             | 5/100              | 2R2     |
| SDS0804T-3R3M-N | 3.3             | 100kHz,0.1V      | 0.039       | 3.3                  | 3.9                  | 55             | 5/100              | 3R3     |
| SDS0804T-4R7M-N | 4.7             | 100kHz,0.1V      | 0.054       | 3.3                  | 3.2                  | 30             | 10/100             | 4R7     |
| SDS0804T-6R8M-N | 6.8             | 100kHz,0.1V      | 0.075       | 2.2                  | 2.8                  | 30             | 10/100             | 6R8     |
| SDS0804T-100M-N | 10              | 100kHz,0.1V      | 0.101       | 2                    | 2.4                  | 28             | 10/100             | 100     |
| SDS0804T-150M-N | 15              | 100kHz,0.1V      | 0.15        | 1.5                  | 2                    | 20             | 15/100             | 150     |
| SDS0804T-220M-N | 22              | 100kHz,0.1V      | 0.207       | 1.3                  | 1.6                  | 15             | 20/100             | 220     |
| SDS0804T-330M-N | 33              | 100kHz,0.1V      | 0.334       | 1.1                  | 1.4                  | 12             | 20/100             | 330     |
| SDS0804T-470M-N | 47              | 100kHz,0.1V      | 0.472       | 0.8                  | 1                    | 10             | 20/100             | 470     |
| SDS0804T-680M-N | 68              | 100kHz,0.1V      | 0.66        | 0.7                  | 0.9                  | 10             |                    | 680     |
| SDS0804T-101M-N | 100             | 100kHz,0.1V      | 1.11        | 0.6                  | 0.8                  | 7              |                    | 101     |
| SDS0804T-151M-N | 150             | 100kHz,0.1V      | 1.55        | 0.5                  | 0.6                  | 6              |                    | 151     |
| SDS0804T-221M-N | 220             | 100kHz,0.1V      | 2           | 0.37                 | 0.5                  | 5              |                    | 221     |
| SDS0804T-102M-N | 1000            | 100kHz,0.1V      | 8.3         | 0.17                 | 0.32                 | 2              |                    | 102     |

**NOTE: tolerance M=±20%**

1. Operating temperature range - 40 °C ~ 125 °C (Including self - temperature rise)

2. I<sub>sat</sub> for Inductance drop 10% from its value without current.

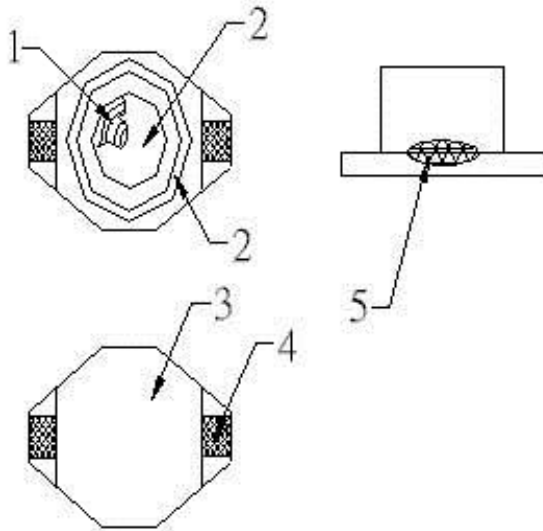
3. I<sub>rms</sub> for a 40 °C temperature rise from 25 °C ambient.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

## SDS0804T Series Specification

### 8 SDS0804T Series

#### 8.1 Construction:



#### 8.2 Material List:

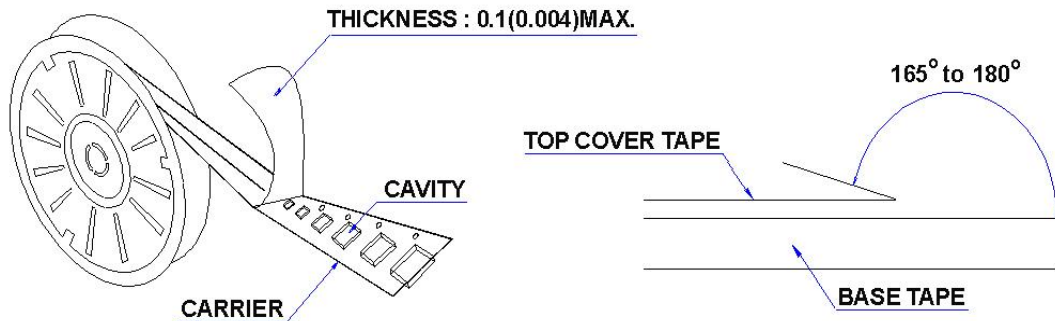
| No | Part     | Material           |
|----|----------|--------------------|
| 1  | WIRE     | COPPER WIRE        |
| 2  | CORE     | FERRITE            |
| 3  | BASE     | LCP                |
| 4  | TERMINAL | TERMINAL<br>COPPER |
| 5  | EPOXY    | 471-5LL(HV)A,B     |

## SDS0804T Series Specification

### 9 Packaging:

#### 9.1 Packaging -Cover Tape

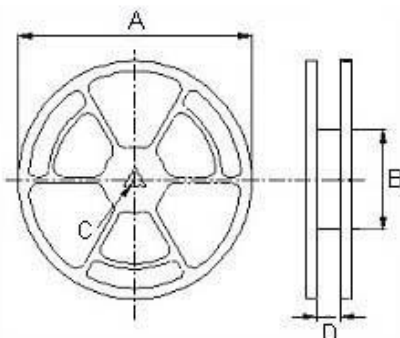
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



#### 9.2 Packaging Quantity

| TYPE    | PCS/REEL |
|---------|----------|
| SDS0402 | 2500     |
| SDS0804 | 1000     |
| SDS1306 | 250      |

#### 9.3 Reel Dimensions



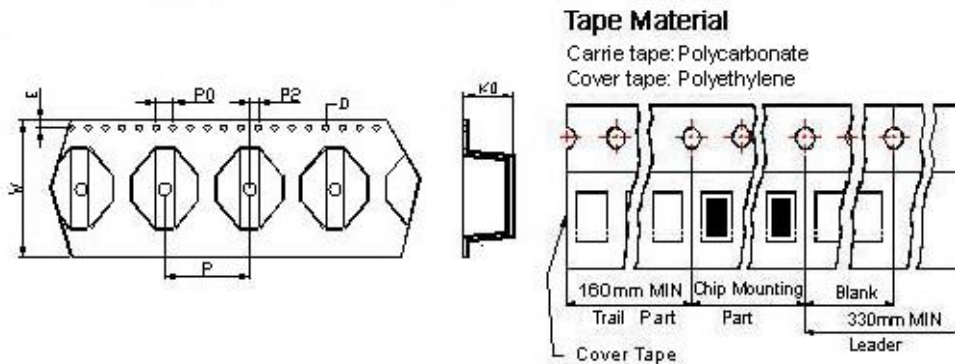
Dimensions in mm

| TYPE    | A   | B   | C  | D    |
|---------|-----|-----|----|------|
| SDS0402 | 330 | 100 | 13 | 13.4 |
| SDS0804 | 330 | 100 | 13 | 24.4 |
| SDS1306 | 330 | 100 | 13 | 33.4 |

## SDS0804T Series Specification

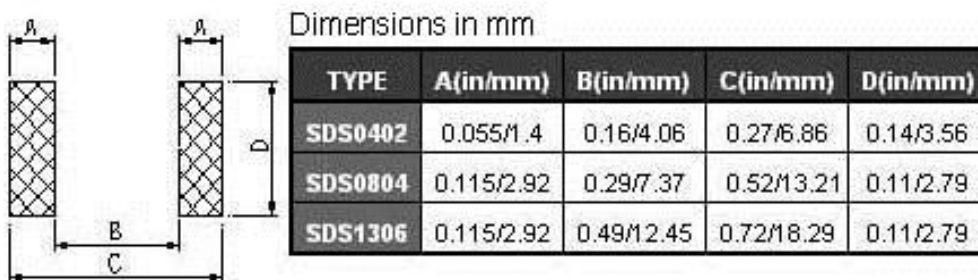
### 9 Packaging:

#### 9.4 Tape Dimensions in mm



| TYPE    | K0  | D    | E    | W  | P  | P0 | P2 |
|---------|-----|------|------|----|----|----|----|
| SDS0804 | 5.4 | 1.55 | 1.75 | 24 | 12 | 4  | 2  |

### 10 Recommended Land Pattern:



### 11 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

## SDS0804T Series Specification

12 Graph: SDS0804T-221M-N

