

# 规格确认书

## SPECIFICATION

客 户

CUSTOMER:

客 户 料 号

CUSTOMER P/N:

物 料 名 称

共模滤波器

MODEL NO:

Wire Wound Chip Common Mode Choke Coil

料 号

RMCF 系列

P/N:

RMCF series

文 件 编 号

FILE NO:

23-07

日期: 2023-07-06

承办人: 刘俊

DATE: July 06, 2023

ISSUEDER: Liu Jun

### 客户确认 APPROVED BY

签名:

日期:

SIGN:

DATE:

结论 RESULT:

确认后请回传 PLEASE RETURN BY ONE COPY

### ●特征

绕线式, 小尺寸。

对高频信号共模噪声有良好的抑制作用。

对不同的噪声水平和信号频率, 有 30Ω~2200Ω 可供选择。

良好的焊接性能。

工作温度范围 -40°C 至 +85°C

### ●用途

PC 机及周边设备、数字 AV 等其他设备的 USB2.0 接口。

笔记本电脑 LCD 的 LVDS 线, 音频线路。

### ●品名系统

|      |      |     |    |     |   |   |
|------|------|-----|----|-----|---|---|
| RMCF | 2012 | (S) | -2 | 900 | T | F |
| ①    | ②    | ③   | ④  | ⑤   | ⑥ | ⑦ |

① 产品代号: 绕线式片式共模扼流器。

② 尺寸规格: 1608=1.6x0.8(mm)

2012=2.0x1.25(mm)

3216=3.2x1.6(mm)

2520=2.5x2.0(mm)

3225=3.2x2.5(mm)

4532=4.5x3.2(mm)

③ 材质: 标准是空白; S、L。

④ 引线数量

⑤ 阻抗: 900=90Ω

⑥ 包装: T=卷带包装。

⑦ 无有害物质产品

### ●FEATURES

Winding type realizes small size and low profile.

Prevention of common mode noise at high frequency.

30Ω~2200Ω are optional for different noise level and signal frequency.

Excellent solderability.

Operating temperature range -40°C to +85°C

### ●Applications

USB2.0 of PC.peripheral equipments, small digital AV equipments, etc.

LVDS lines of Note PC.LCD, Audio lines.

### ●Product Identification

|      |      |     |    |     |   |   |
|------|------|-----|----|-----|---|---|
| RMCF | 2012 | (S) | -2 | 900 | T | F |
| ①    | ②    | ③   | ④  | ⑤   | ⑥ | ⑦ |

① Product symbol: Winding Type Common Mode Choke Coil

② Dimension: 1608=1.6x0.8(mm)

2012=2.0x1.25(mm)

3216=3.2x1.6(mm)

2520=2.5x2.0(mm)

3225=3.2x2.5(mm)

4532=4.5x3.2(mm)

③ Material: The standard is blank. S、L。

④ Number of Lines.

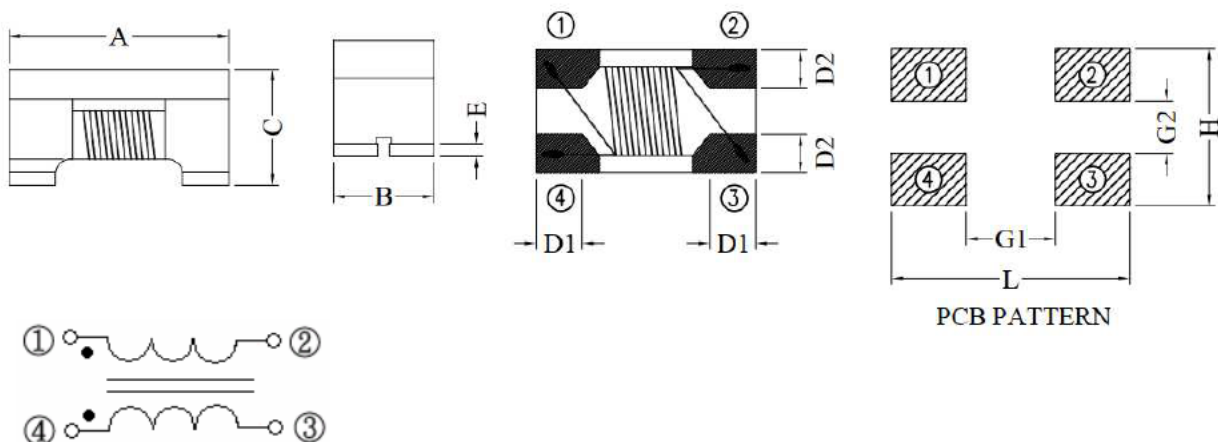
⑤ Impedance: 900=90Ω

⑥ Packing: T=Tape & Reel.

⑦ Hazardous Substance Free Products.

### ●结构及尺寸

### ●Structure And Dimension



Units:mm

| Series | A       | B       | C       | D1<br>Typ | D2<br>Typ | E       | G1<br>Typ | G2<br>Typ | H<br>Typ | L<br>Typ |
|--------|---------|---------|---------|-----------|-----------|---------|-----------|-----------|----------|----------|
| 1608   | 1.6±0.1 | 0.8±0.1 | 1.1±0.1 | 0.33      | 0.25      | 0.1±0.1 | 0.73      | 0.25      | 0.85     | 1.89     |
| 2012   | 2.0±0.2 | 1.2±0.2 | 1.2±0.2 | 0.55      | 0.46      | 0.2±0.1 | 0.8       | 0.4       | 1.2      | 2.6      |
| 3216   | 3.2±0.2 | 1.6±0.2 | 1.9±0.2 | 0.7       | 0.6       | 0.2±0.1 | 1.6       | 0.4       | 1.6      | 3.7      |
| 2520   | 2.5±0.2 | 2.0±0.2 | 1.2±0.2 | 0.45      | 0.6       | 0.2±0.1 | 1.2       | 0.6       | 2        | 3.2      |
| 3225   | 3.2±0.2 | 2.5±0.2 | 1.8±0.2 | 0.6       | 0.8       | 0.3±0.1 | 2.2       | 0.9       | 2.5      | 4        |
| 4532   | 4.5±0.2 | 3.2±0.2 | 2.8±0.2 | 0.8       | 1.1       | 0.5±0.1 | 2.7       | 1         | 3.2      | 5.1      |

### ●规格

### ●Specifications

RMCF1608 系列(TYPE)

| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | Ω/±25%                       | mΩ                           | MΩ                                   | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF1608S-2-250TF | 25                           | 100                          | 10                                   | 20                    | 500                          |
| RMCF1608S-2-600TF | 60                           | 200                          | 10                                   | 20                    | 350                          |
| RMCF1608S-2-900TF | 90                           | 250                          | 10                                   | 20                    | 300                          |
| RMCF1608S-2-121TF | 120                          | 250                          | 10                                   | 20                    | 300                          |
| RMCF1608S-2-141TF | 140                          | 250                          | 10                                   | 20                    | 300                          |
| RMCF1608S-2-221TF | 220                          | 250                          | 10                                   | 20                    | 300                          |

#### Notes

- 1.All test data is referenced to 25°C ambient.
- 2.Irms (A):DC current (A)that will cause an approximate AT of 40°C(reference ambient temperature is 25°C).
- 3.The part temperature (ambient temp rise)should not exceed 125°C under worst case operating conditions.Circuit design,component placement,PWB trace size and thickness,airflow and other cooling provisions.All affect the part temperature.Part temperature should be verified in the end application.

RMCF2012系列(TYPE)

| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | $\Omega/\pm 25\%$            | m $\Omega$                   | M $\Omega$                           | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF2012-2-300TF  | 30                           | 200                          | 10                                   | 50                    | 450                          |
| RMCF2012-2-500TF  | 50                           | 250                          | 10                                   | 50                    | 550                          |
| RMCF2012-2-750TF  | 75                           | 250                          | 10                                   | 50                    | 400                          |
| RMCF2012-2-900TF  | 90                           | 300                          | 10                                   | 50                    | 400                          |
| RMCF2012-2-121TF  | 120                          | 300                          | 10                                   | 50                    | 400                          |
| RMCF2012-2-161TF  | 160                          | 350                          | 10                                   | 50                    | 350                          |
| RMCF2012-2-181TF  | 180                          | 350                          | 10                                   | 50                    | 350                          |
| RMCF2012-2-201TF  | 200                          | 350                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-221TF  | 220                          | 350                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-251TF  | 250                          | 400                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-261TF  | 260                          | 400                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-301TF  | 300                          | 400                          | 10                                   | 50                    | 290                          |
| RMCF2012-2-361TF  | 360                          | 400                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-371TF  | 370                          | 450                          | 10                                   | 50                    | 280                          |
| RMCF2012-2-481TF  | 480                          | 550                          | 10                                   | 50                    | 200                          |
| RMCF2012-2-501TF  | 500                          | 550                          | 10                                   | 50                    | 200                          |
| RMCF2012-2-601TF  | 600                          | 550                          | 10                                   | 50                    | 300                          |
| RMCF2012-2-671TF  | 670                          | 600                          | 10                                   | 50                    | 180                          |
| RMCF2012-2-681TF  | 680                          | 700                          | 10                                   | 50                    | 180                          |
| RMCF2012-2-751TF  | 750                          | 800                          | 10                                   | 50                    | 150                          |
| RMCF2012-2-801TF  | 800                          | 1000                         | 10                                   | 50                    | 300                          |
| RMCF2012-2-901TF  | 900                          | 1000                         | 10                                   | 50                    | 100                          |
| RMCF2012-2-102TF  | 1000                         | 1000                         | 10                                   | 50                    | 100                          |

RMCF3216 系列(TYPE)

| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | $\Omega/\pm 25\%$            | m $\Omega$                   | M $\Omega$                           | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF3216-2-500TF  | 50                           | 250                          | 10                                   | 50                    | 400                          |
| RMCF3216-2-900TF  | 90                           | 300                          | 10                                   | 50                    | 370                          |
| RMCF3216-2-161TF  | 160                          | 400                          | 10                                   | 50                    | 340                          |
| RMCF3216-2-261TF  | 260                          | 500                          | 10                                   | 50                    | 310                          |
| RMCF3216-2-601TF  | 600                          | 800                          | 10                                   | 50                    | 260                          |
| RMCF3216-2-102TF  | 1000                         | 1000                         | 10                                   | 50                    | 230                          |
| RMCF3216-2-222TF  | 2200                         | 1200                         | 10                                   | 50                    | 200                          |

### RMCF2520 系列(TYPE)

| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | $\Omega/\pm 25\%$            | m $\Omega$                   | M $\Omega$                           | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF2520S-2-301TF | 300                          | 250                          | 10                                   | 50                    | 400                          |
| RMCF2520S-2-451TF | 450                          | 300                          | 10                                   | 50                    | 350                          |
| RMCF2520S-2-601TF | 600                          | 380                          | 10                                   | 50                    | 330                          |
| RMCF2520S-2-102TF | 1000                         | 500                          | 10                                   | 50                    | 240                          |

### RMCF3225 系列(TYPE)

| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | $\Omega/\pm 25\%$            | m $\Omega$                   | M $\Omega$                           | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF3225L-2-601TF | 600                          | 120                          | 10                                   | 50                    | 1000                         |
| RMCF3225S-2-102TF | 1000                         | 350                          | 10                                   | 50                    | 1000                         |

### RMCF4532 系列(TYPE)

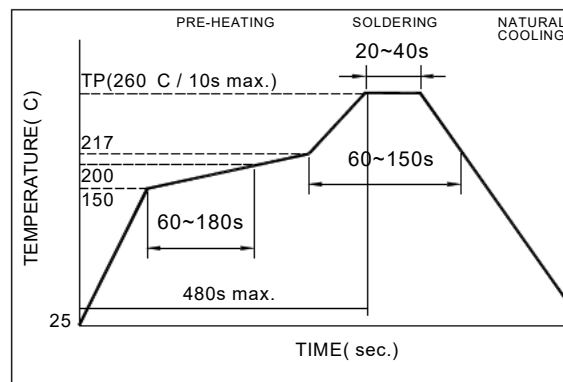
| 型号<br>Part Number | 共模阻抗<br>Impedance<br>@100MHz | 直流电阻<br>Max.DC<br>Resistance | 绝缘电阻<br>Min.Insulation<br>Resistance | 额定电压<br>Rated Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|------------------------------|
| 单位Units           | $\Omega/\pm 25\%$            | m $\Omega$                   | M $\Omega$                           | Volts                 | mA                           |
| 符号Symbol          | Z                            | DCR                          | IR                                   | Vdc                   | Ir                           |
| RMCF4532S-2-900TF | 90                           | 70                           | 10                                   | 50                    | 3000                         |
| RMCF4532S-2-121TF | 120                          | 70                           | 10                                   | 50                    | 3000                         |
| RMCF4532S-2-331TF | 330                          | 110                          | 10                                   | 50                    | 1100                         |
| RMCF4532S-2-601TF | 600                          | 120                          | 10                                   | 50                    | 1000                         |
| RMCF4532S-2-801TF | 800                          | 160                          | 10                                   | 50                    | 900                          |
| RMCF4532S-2-102TF | 1000                         | 180                          | 10                                   | 50                    | 800                          |
| RMCF4532S-2-142TF | 1400                         | 200                          | 10                                   | 50                    | 700                          |

#### Notes

- 1.All test data is referenced to 25°C ambient.
- 2.Irms (A):DC current (A) that will cause an approximate AT of 40°C (reference ambient temperature is 25°C).
- 3.The part temperature (ambient temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions. All affect the part temperature. Part temperature should be verified in the end application.

## ● SOLDERING CONDITIONS

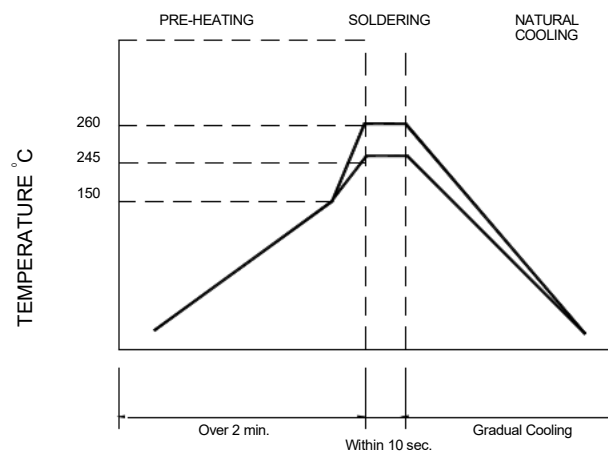
**Figure 1.  
Re-flow  
Soldering (Lead  
Free)**



Note:

- Preheat circuit and products to 150°C
- 260°C tip temperature (max)
- Reflow times: no more than 2 times
- Solder paste thickness: the best 0.08mm is ,but max is 0.1mm

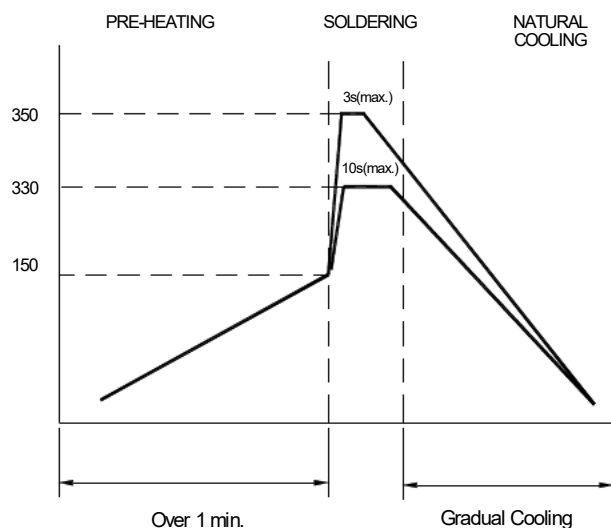
**Figure 2.  
Wave Soldering**



Note :

- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (max)

**Figure 3.  
Hand Soldering**



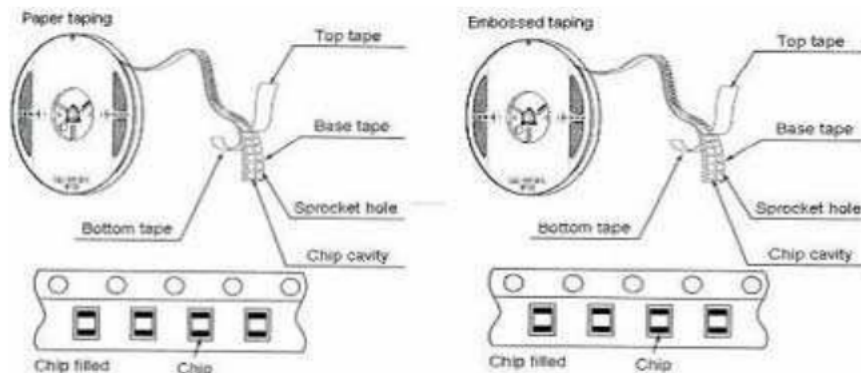
Note:

- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.

## ●PACKAGING(unit: mm)

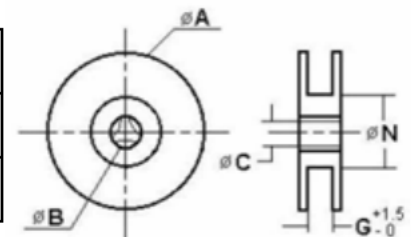
| Type     | 1608 | 2012 | 3216 | 2520 | 3225 | 4532 |
|----------|------|------|------|------|------|------|
| Quantity | 3000 | 2000 | 2000 | 2000 | 2000 | 500  |

## TAPING DRAWINGS

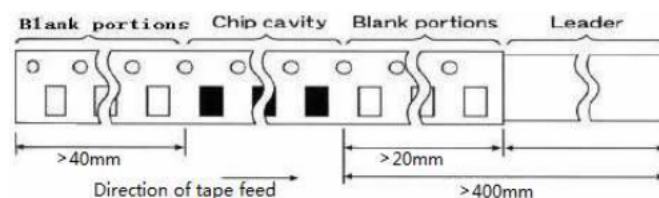


## REEL DIMENSIONS(UNIT:mm)

|       | A       | B      | C        | N      | G  |
|-------|---------|--------|----------|--------|----|
| CF-8  | 178±2.0 | 22±2.0 | 12.5±1.5 | 57±2.0 | 8  |
| CF-12 | 178±2.0 | 22±2.0 | 12.5±1.5 | 98±2.0 | 12 |



## LEADER AND BLANK PORTION



PEELLING OFF FORCE:0.05 to 0.7N in the direction show below.

