

## 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(功率型)

MODEL NO :

Common Mode Choke Coil(For power line)

料 号

ACM-F系列

P/N :

ACM-F 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

适用于大电流应用的芯片共模滤波器。

对高频信号共模噪声有良好的抑制作用。

与高密度便携式设备兼容，由于高度降低，这些设备可以被做得更小更轻。

良好的焊接性能。

工作温度范围 -40°C 至 +125°C

## ●用途

LED 灯、电视游戏机、显示器等。

各种电子设备的电源线噪声对策。

## ●品名系统

| ACM | 7060 | F | - | 701 | T |
|-----|------|---|---|-----|---|
| ①   | ②    | ③ |   | ④   | ⑤ |

① 产品代号: 功率型共模扼流器。

② 尺寸规格: 4520=4.7x4.5x2.2(mm)

7060=7.0x6.0x3.8(mm)

9070=9.0x7.0x4.8(mm)

1211=12.0x10.8x6.4(mm)

1513=15.0x13.0x6.6(mm)

③ 材质: 标准是 F ; 或者 M.

④ 阻抗 701=700Ω

⑤ 包装 : T=卷带包装。

## ●FEATURES

Chip common mode filter for large current applications.

Prevention of common mode noise at high frequency.

Compatible with high-density portable devices, which are always being made smaller and lighter, because the height has been reduced.

Excellent solderability.

Operating temperature range -40°C to +125°C

## ●Applications

LED Light, TV game, Monitor, etc.

Power line noise countermeasure for various electronic equipment.

## ●Product Identification

| ACM | 7060 | F | - | 701 | T |
|-----|------|---|---|-----|---|
| ①   | ②    | ③ |   | ④   | ⑤ |

① Product symbol : Common Mode Choke Coil for power line.

② Dimension: 4520=4.7x4.5x2.2(mm)

7060=7.0x6.0x3.8(mm)

9070=9.0x7.0x4.8(mm)

1211=12.0x10.8x6.4(mm)

1513=15.0x13.0x6.6(mm)

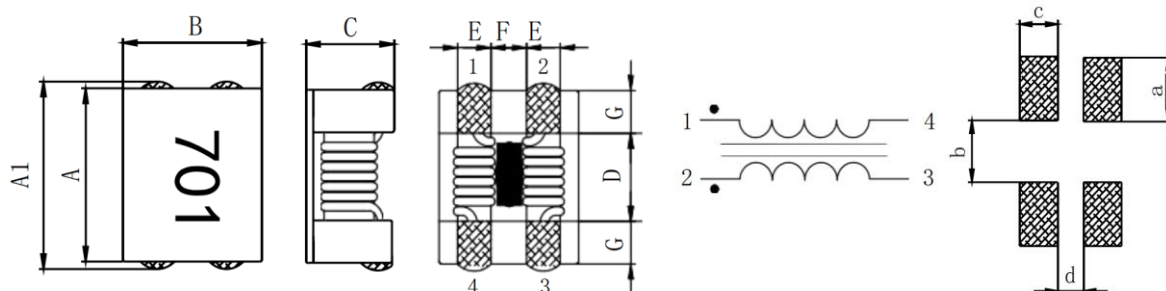
③ Material : The standard is F. Else M.

④ Impedance: 701=700Ω.

⑤ Packing: T=Tape & Reel.

## ●结构及尺寸

## ●Structure And Dimension



Electrical Schematic and PAD Layout

Unit:mm

| TYPE | A    | A1   | B    | C   | D   | E   | F    | G    | a    | b    | c    | d    |
|------|------|------|------|-----|-----|-----|------|------|------|------|------|------|
|      | ±0.5 | ±0.6 | ±0.5 | Max | Ref | Ref | Ref  | Ref  | Ref  | Ref  | Ref  | Ref  |
| 4520 | 4.7  | 5.2  | 4.5  | 2.2 | 2.7 | 0.8 | 1.25 | 1.00 | 1.45 | 2.20 | 1.20 | 1.05 |
| 7060 | 7.0  | 7.5  | 6.0  | 4.0 | 3.5 | 1.5 | 1.50 | 1.70 | 3.00 | 2.90 | 1.90 | 1.30 |
| 9070 | 9.0  | 9.5  | 7.0  | 5.0 | 5.7 | 1.5 | 2.00 | 1.70 | 3.00 | 5.00 | 2.00 | 1.80 |
| 1211 | 12.0 | 12.5 | 10.8 | 6.6 | 7.0 | 2.7 | 2.50 | 2.50 | 3.90 | 6.10 | 3.10 | 2.30 |
| 1513 | 15.0 | 15.5 | 13.0 | 6.3 | 9.0 | 2.7 | 3.80 | 3.00 | 4.20 | 8.20 | 3.10 | 3.20 |

## ●规格

## ●Specifications

HACM4520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<br>Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------|------------------------------|--------------------------------------|--------------------------|------------------------------|
| 单位Units           | Min                          | Typ  | mΩ                           | MΩ                                   | Volts                    | A                            |
| 符号Symbol          | Z                            |      | DCR                          | IR                                   | Vdc                      | Ir                           |
| ACM4520F-900T     | 60                           | 90   | 35                           | 10                                   | 50                       | 2                            |
| ACM4520F-151T     | 90                           | 150  | 40                           | 10                                   | 50                       | 1.9                          |
| ACM4520F-231T     | 180                          | 230  | 45                           | 10                                   | 50                       | 1.8                          |
| ACM4520F-301T     | 200                          | 300  | 45                           | 10                                   | 50                       | 1.7                          |
| ACM4520F-401T     | 300                          | 400  | 50                           | 10                                   | 50                       | 1.6                          |
| ACM4520F-421T     | 300                          | 420  | 55                           | 10                                   | 50                       | 1.5                          |
| ACM4520F-501T     | 350                          | 500  | 57                           | 10                                   | 50                       | 1.4                          |
| ACM4520F-701T     | 500                          | 700  | 59                           | 10                                   | 50                       | 1.3                          |
| ACM4520F-901T     | 650                          | 900  | 68                           | 10                                   | 50                       | 1.3                          |
| ACM4520F-102T     | 800                          | 1000 | 68                           | 10                                   | 50                       | 1.3                          |
| ACM4520F-122T     | 1000                         | 1200 | 74                           | 10                                   | 50                       | 1.2                          |
| ACM4520F-142T     | 1000                         | 1400 | 80                           | 10                                   | 50                       | 1.2                          |

## ACM7060 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<br>Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------|------------------------------|--------------------------------------|--------------------------|------------------------------|
| 单位Units           | Min                          | Typ  | mΩ                           | MΩ                                   | Volts                    | A                            |
| 符号Symbol          | Z                            |      | DCR                          | IR                                   | Vdc                      | Ir                           |
| ACM7060F-400T     | 40                           | 80   | 8                            | 10                                   | 80                       | 10                           |
| ACM7060F-101T     | 100                          | 140  | 10                           | 10                                   | 80                       | 9                            |
| ACM7060F-301T     | 225                          | 300  | 10                           | 10                                   | 80                       | 5                            |
| ACM7060F-501T     | 275                          | 450  | 10                           | 10                                   | 80                       | 5                            |
| ACM7060F-601T     | 500                          | 600  | 15                           | 10                                   | 80                       | 4                            |
| ACM7060F-701T     | 500                          | 700  | 15                           | 10                                   | 80                       | 4                            |
| ACM7060F-102T     | 800                          | 1020 | 17                           | 10                                   | 80                       | 3                            |
| ACM7060F-132T     | 900                          | 1300 | 21                           | 10                                   | 80                       | 2.5                          |
| ACM7060F-222T     | 1700                         | 2000 | 60                           | 10                                   | 80                       | 1.2                          |
| ACM7060F-272T     | 2000                         | 2700 | 63                           | 10                                   | 80                       | 1                            |
| ACM7060F-302T     | 2200                         | 3500 | 80                           | 10                                   | 80                       | 0.8                          |

## ACM9070 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<br>Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------|------------------------------|--------------------------------------|--------------------------|------------------------------|
| 单位Units           | Min                          | Typ  | mΩ                           | MΩ                                   | Volts                    | A                            |
| 符号Symbol          | Z                            |      | DCR                          | IR                                   | Vdc                      | Ir                           |
| ACM9070F-301T     | 225                          | 300  | 6                            | 10                                   | 80                       | 6                            |
| ACM9070F-501T     | 450                          | 600  | 8                            | 10                                   | 80                       | 5.5                          |
| ACM9070F-701T     | 500                          | 700  | 10                           | 10                                   | 80                       | 5                            |
| ACM9070F-102T     | 750                          | 1000 | 13                           | 10                                   | 80                       | 4                            |
| ACM9070F-222T     | 1700                         | 2200 | 50                           | 10                                   | 80                       | 3                            |
| ACM9070F-272T     | 2000                         | 2700 | 80                           | 10                                   | 80                       | 2                            |
| ACM9070F-302T     | 2500                         | 3000 | 80                           | 10                                   | 80                       | 2                            |

(1)Rated Current Temp rise 40°C Typ

(2)Storage Temperture:-20°C up to +40°C 75% RH max

## ACM1211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<br>Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------|------------------------------|--------------------------------------|--------------------------|------------------------------|
| 单位Units           | Min                          | Typ  | mΩ                           | MΩ                                   | Volts                    | A                            |
| 符号Symbol          | Z                            |      | DCR                          | IR                                   | Vdc                      | Ir                           |
| ACM1211F-800T     | 80                           | 230  | 2                            | 10                                   | 125                      | 10                           |
| ACM1211F-301T     | 200                          | 300  | 4                            | 10                                   | 125                      | 9                            |
| ACM1211F-501T     | 300                          | 500  | 5.5                          | 10                                   | 125                      | 8                            |
| ACM1211F-701T     | 500                          | 700  | 6                            | 10                                   | 125                      | 8                            |
| ACM1211F-801T     | 600                          | 800  | 8                            | 10                                   | 125                      | 8                            |
| ACM1211F-102T     | 750                          | 1000 | 14                           | 10                                   | 125                      | 6                            |
| ACM1211F-222T     | 2200                         | 2500 | 35                           | 10                                   | 125                      | 1.8                          |
| ACM1211F-272T     | 2300                         | 2700 | 50                           | 10                                   | 125                      | 1.5                          |

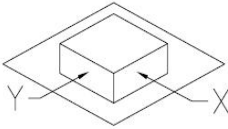
## ACM1513系列(TYPE)

| 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<br>Voltage | 额定电流<br>Max.Rated<br>Current |
|-------------------|------------------------------|------|------------------------------|--------------------------------------|--------------------------|------------------------------|
| 单位Units           | Min                          | Typ  | mΩ                           | MΩ                                   | Volts                    | A                            |
| 符号Symbol          | Z                            |      | DCR                          | IR                                   | Vdc                      | Ir                           |
| ACM1513F-301T     | 250                          | 300  | 5                            | 10                                   | 80                       | 13                           |
| ACM1513F-551T     | 450                          | 550  | 6                            | 10                                   | 80                       | 10                           |
| ACM1513F-601T     | 500                          | 600  | 7                            | 10                                   | 80                       | 10                           |
| ACM1513F-701T     | 500                          | 700  | 7                            | 10                                   | 80                       | 10                           |
| ACM1513F-102T     | 800                          | 1000 | 12                           | 10                                   | 80                       | 10                           |

(1)Rated Current Temp rise 40°C Typ

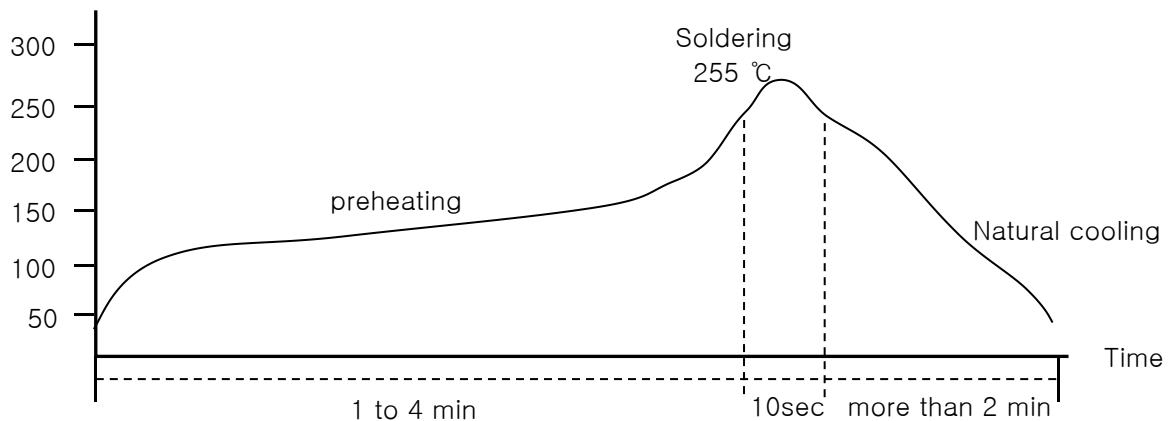
(2)Storage Temperture:-20°C up to +40°C 75% RH max

## ●可靠性测试/RELIABILITY TESTING

|                                                                                                        |                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temperature                                                                                  | -40°C to +125 °C ( Contain Heating coil )                                                                                                                                                             |
| Appearance Inspection                                                                                  | No external defects by visual inspection                                                                                                                                                              |
| Terminal Strength<br> | After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec.<br>Terminal should not peel off.( Refer to figure at right ) |
| Heat endurance of reflow soldering                                                                     | Refer to figure                                                                                                                                                                                       |
| Insulating resistance                                                                                  | Over 100 MΩ at 100V D.C . between wire and core                                                                                                                                                       |
| Dielectric Strength                                                                                    | Apply at 0.5KV 3mA for 1 minute between wire and core                                                                                                                                                 |
| Temperature characteristics                                                                            | Inductance coefficient ( 0~2,000 ) × 10 / °C( - 40~ + 125 °C )                                                                                                                                        |
| Humidity characteristics                                                                               | Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 °C and 1 hours drying under normal condition                                                                 |
| A test is made under the above mentioned condition , and it is kept for 2 hours in the normal          |                                                                                                                                                                                                       |

### IR Reflow profile

Temperature °C

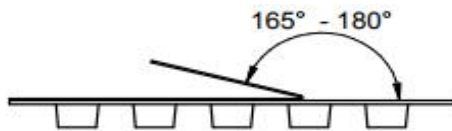
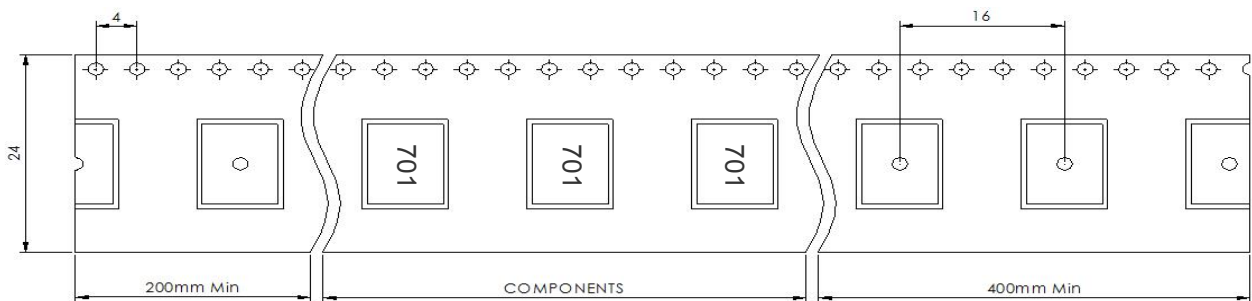


Temperature and humidity . After that , no mechanical and electrical defect should be found .

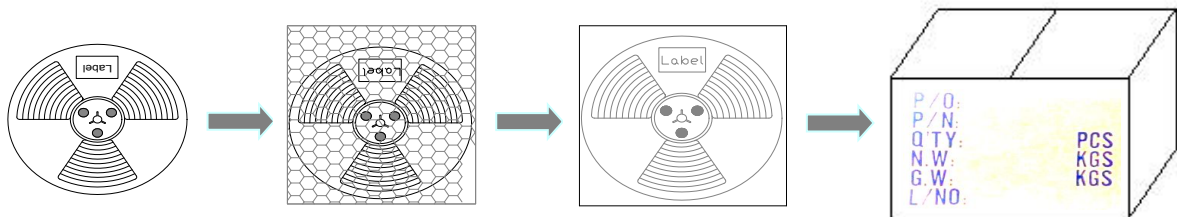
## ● 材料清单 MATERIAL LIST

| NO. | ITEM     | DESCRIPTION |
|-----|----------|-------------|
| 1   | CORE     | FERRITE     |
| 2   | SOLDER   | LEAD-FREE   |
| 3   | WIRE     | UEW-H       |
| 4   | ADHESIVE | EPOXY RESIN |
| 5   | INK      | WHITE       |

## ● 包装规格 PACKING SPECIFICATIONS



| Tape width | Distance | Pull-of force |
|------------|----------|---------------|
| 24 mm      | 16 mm    | 10~120g       |



轮盘：13'(直径330mm)

PE袋

内盒

外箱，不足整箱用内盒或填充物装满

| 系列   | 盘系数  | 盒系数  |
|------|------|------|
| 4520 | 1000 | 4000 |
| 7060 | 1500 | 4500 |
| 9070 | 700  | 1400 |
| 1211 | 500  | 1000 |

4520F系列轮盘直径为178mm  
其他系列均为330mm