| RUME | Ceramic Capacitor Specification Approval Certificate | | | |
|---|---|---|---|---|
| | NO. | WI-002B-001 | Date | 2025 年 12 月 03 日 |
| | Ver. | V 1.0 | Page | Page 1of 6 pages |

# SPECIFICATION FOR APPROVAL

**Customer：**

**Part NO.：**

**Part No.** A514F1D103MB F=10.0mm

**Specs Of JNC:** 5KV-Y5V-103M Long straight lead

★ Environmental requirements：RoHS Corresponds ☑

REACH Corresponds☐ Halogen Corresponds ☐

| Written | For Customer Approval |
|---|---|
| Huifang Luo | |
| Checked | |
| Lianfei Chen | |
| Approval | |
| Xiangang Fan | （For approval, Please also an） |

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## 一、Purpose:

The creation of an acknowledgement letter is intended to reach an agreement with the customer regarding product quality, and it can also serve as a standard in case of disputes over quality issues.

## 二、Scope of Application

This acknowledgment applies to the disc ceramic capacitors produced and sold by our company with a rated voltage not exceeding 6300VDC. It can also serve as the technical quality specification for such products of our company, and be used in ordering, incoming inspection, production, testing, sales, and other related processes.

## 三、Citation Standard

This specification is formulated in accordance with the GB/T2693-200 standard.。

## 四、Part NO.Explain

4. 1. Part number system:

| A5 | 14 | F | 1 | D | 103 | M | B |
|---|---|---|---|---|---|---|---|
| <1> | <2> | <3> | <4> | <5> | <6> | <7> | <8> |

<1>. Coded representation meaning

| code | 50 | A1 | A2 | A4 | A6 |
|---|---|---|---|---|---|
| Rated voltage | 500VDC | 1000VDC | 2000VDC | 4000VDC | 6000VDC |

<2>. express the finished diameter code

| code | 06 | 07 | 08 | 09 | 10 | 11 | *** |
|---|---|---|---|---|---|---|---|
| The finished diamete | 6.00mm | 7.00mm | 8.00mm | 9.00mm | 10.00mm | 11.00mm | *** |

<3>. code to indicate the temperature coefficient and temperature characteristics

| Temperature coefficient | Minimum operating temperature | Maximum operating temperature | Reference Temperature | Maximum Capacity Relative Rate of Change |
|---|---|---|---|---|
| Y5P(B) | -30℃ | +85℃ | +25℃ | ±10% |
| Y5U(E) | -30℃ | +85℃ | +25℃ | +22%,-56% |
| Y5V(F) | -30℃ | +85℃ | +25℃ | +30,-82% |

<4>. Lead foot molding

| Code | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Foot shape | Long straight lead | Outside kink lead | Short straight lead | Kink lead |

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<5>. Pin spacing

| Code | A | B | E | D | F |
|---|---|---|---|---|---|
| Pin spacing (mm) | 4.0 | 5.0 | 7.5 | 10.0 | 12.5 |

<6>. Nominal capacity

| Code | 4R7 | 1R0 | 101 | 471 | 222 | 472 | 103 |
|---|---|---|---|---|---|---|---|
| Nominal capacity | 4.7PF | 1PF | 100PF | 470PF | 2200PF | 4700PF | 10000PF |

<7>. Tolerance

| Code | J | K | M | Z |
|---|---|---|---|---|
| Tolerance | ±5% | ±10% | ±20% | -20%,+80% |

<8>. Manner of packing

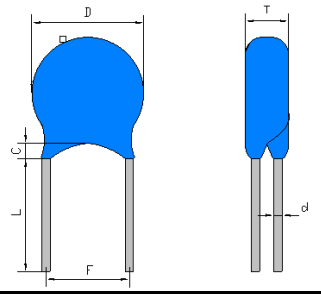
| Code | Meaning |
|---|---|
| B | bulk |
| T | tape |

## 五、Admit specifications

| NO. | Part No. | JNC Code | Demension (mm) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | D Min | T Max | Lmin | F±0.5 | Φ±0.05 | c Max | material |
| 01 | | A514F1D103MB | 14.5 | 4.5 | 20.0 | 10.0 | 0.55 | 3.0 | Y5V |
| | | NA | | | | | | | |

Exterior Dimension Drawing

引线样式一 长直引线型




Please carefully read the relevant contents of this acknowledgment before use, measurement, or testing!

If the specifications your company orders are not included in this unit or differ from this acknowledgment letter, please contact our Sales or Technical Department!

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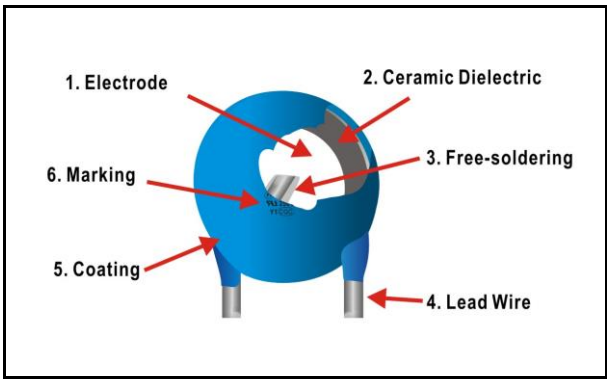
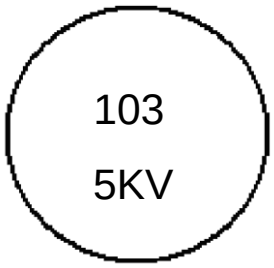
## 六、Exterior structure




Note: The encapsulation layer is made of epoxy resin and is blue in color.

## 七、Marking:

| Project | | | |
|---|---|---|---|
| ① | Marking | 1. The first line '103' indicates the nominal capacity.<br>2. The second line '5KV': indicates the rated voltage | Marking<br> |

ТРИАТРОН

## 八、Specifications and Test Methods

Test condition:

Experiments and tests must be conducted under standard conditions (temperature 15－30° C, relative humidity 45－75%, air pressure 86－106 kPa). Unless otherwise specified, if there are doubts about the measurement results or it is specifically requested, the capacitance must be tested under reference conditions (temperature 25±2° C, relative humidity 60－70%, air pressure 86－106 kPa).

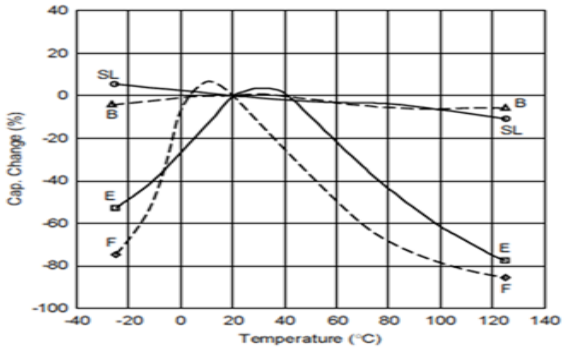
**Routine test items.**

| Project | | Test conditions | Inspection Standards |
|---|---|---|---|
| Temperature range | | -40℃～125℃ | |
| Class II ceramic capacitor | Capacitance | Temperature：25℃±2℃<br>Humidity：50～60%<br>Voltage：1.0V±0.2Vrms<br>Frequency：1±0.2KHZ | Within the allowed tolerance range:C：±0.25PF, D：±0.5PF, J：±5% K：±10%, M：±20% |
| | DF（%） | | DF≤2.5% |
| | Voltage | Charging current ≤ 0.05A<br>Applied voltage duration: 1 min | Test voltage U = 1.5 kVDC. During the test, the capacitor should not experience breakdown or arcing. |
| | Insulation Resistance (I.R.) | Measuring voltage:<br>UR < 500V, arbitration voltage UR<br>UR ≥ 500V, arbitration voltage 500V<br>Charging current ≤ 0.05A<br>Measurement time: 1 min | R≥4000MΩ |

Room temperature refers to conditions where the temperature is 15-30° C, relative humidity is 45-75%, and air pressure is 86-106 kPa.

## 九、Temperature Characteristic Curves

B: Y5P E: Y5U F: Y5V S:SL

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## 十. Storage Environment Requirements

1. Due to the presence of hydrogen chloride, hydrogen sulfide, sulfur compounds, and othersubstances in the atmosphere, when the product is stored in the air, attention must be paid to the potential deterioration of the solderability of the leads.
2. The product should not be exposed to high temperatures or high humidity and must be stored under the following conditions (without opening the original packaging):
   A. Temperature: ≤35℃
   B. Humidity: ≤70% RH
   C. Storage Period (calculated from the date on the product packaging or the product itself):
   - Bulk products: no more than 24 months
   - Taped products: no more than 12 months.

## 十一. Environmental management control material

| NO. | Types of hazardous substances | The name of the hazardous substances | Limited level |
|---|---|---|---|
| 1 | Heavy metals | Cadmium (Cd)/Cadmium Compounds | ＜100ppm |
| | | Lead (Pb)/Lead Compounds | ＜1000ppm |
| | | Mercury (Hg)/Mercury Compounds | ＜1000ppm |
| | | Hexavalent-Chromiun (Cr6+) Compounds | ＜1000ppm |
| 2 | Organic bromide | PBB | ＜1000ppm |
| | | PBDE | ＜1000ppm |

Note: In case of discrepancies between standards, the latest product standard shall prevail.

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