1. SCOPE

This specification is applied to the ceramics discriminator used with the type JT10.7MG3 for FM receiver. Please contact us before using any of the products in the applications not described above.

2. PART NO.:

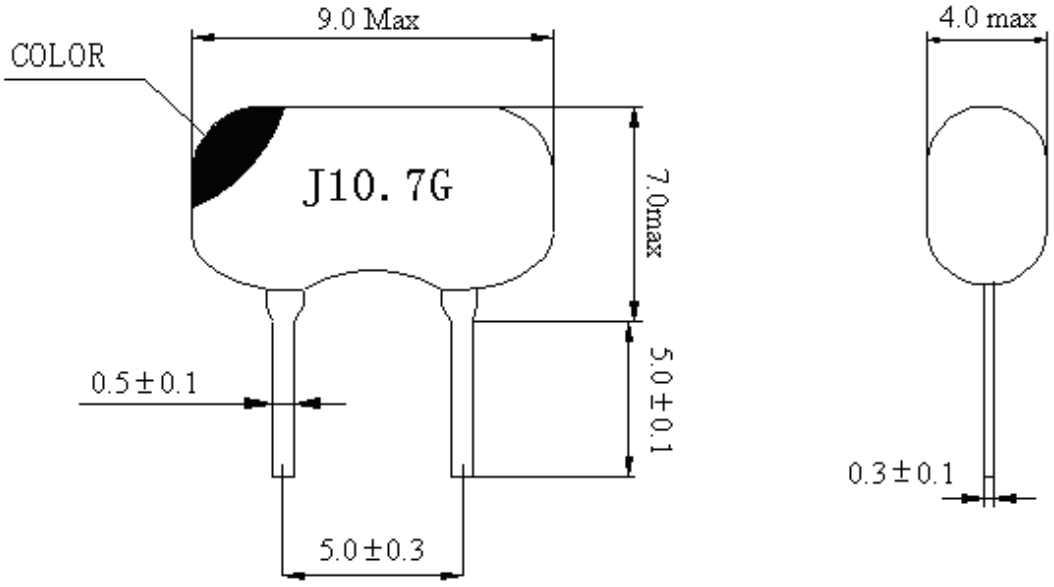
| PART NUMBER | CUSTOMER PART NO | SPECIFICATION NO |
|---|---|---|
| JT10.7MG3 | | |

3. OUTLINE DRAWING AND DIMENSIONS:

Appearance: No visible damage and dirt.

Construction: Leads are soldered on electrode and body is molded by resin.

Dimensions:




UNIT：mm

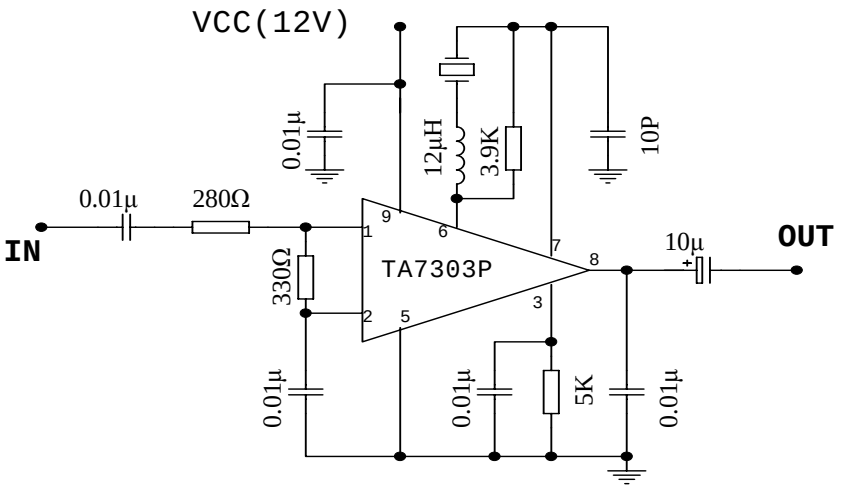
## 4. ELECTRICAL SPECIFICATIONS:

| No | Item | Requirements |
|---|---|---|
| 4.1 | Center Frequency fo (MHz) | A：10.700±0.030 (RED) |
| 4.2 | Recovered Audio Voltage (at fo) (mV) min | 650 |
| 4.3 | Distortion (at fo) (%) max | 1.0 |
| 4.4 | Recovered Audio 3dB Bandwidth (kHz) min | ±150 |
| 4.5 | Temp. Coefficient of Frequency (ppm/℃) max | ±100 （Center Frequency drift，-10℃～+70℃） |
| 4.6 | Insulation Resistance Ri,(MΩ)min | 100 (100V，1min) |
| 4.7 | Withstanding Voltage | 50VDC, 1min |

## 5. MEASUREMENT:

Measurement Conditions: Parts shall be measured under a condition ( Temp.： 20±15℃,Humidity ： 65±20% R.H.) unless the standard condition(Temp.： 25±2℃,Humidity ： 65±5% R.H.) is regulated to measure.

Test Circuit:




Input Signal: Input Level：100dBμV

Modulation Frequency：1000Hz

Frequency Deviation：±75kHz

5.2.2 Center Frequency（fo）: Center frequency is measured under the condition that modulated and 100dBμV input signal （center）is supplied and varied its frequency. It is defined as the frequency at that D.C.output Voltage shall correspond to that for 0dBμV input signal.

5.2.3 Recovered Audio Voltage: It is defined as the recovered audio voltage at center frequency（fo）.

5.2.4 Distortion: It is defined as the distortion at center frequency（fo）.

5.2.5 Recovered Audio 3dB Bandwidth: It is defined as the difference between the two frequencies where the recovered audio voltage 3dB from the level of center frequency（fo）.

## 6 PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

| No | Item | Condition of Test | Performance Requirements |
|---|---|---|---|
| 6.1 | Humidity | Subject the discriminator at +40±2℃ and 90%-95% R.H. for 100 hours, discriminator shall be measured after being placed in natural conditions for 1 hour. | It shall fulfill the specifications in Table 1. |
| 6.2 | High Temperature Exposure | Subject the discriminator to +85±5℃ for 100 hours, discriminator shall be measured after being placed in natural conditions for 1 hour. | It shall fulfill the specifications in Table 1. |
| 6.3 | Low Temperature Exposure | Subject the discriminator to –25±5℃ for 100 hours, discriminator shall be measured after being placed in natural conditions for 1 hour. | It shall fulfill the specifications in Table 1. |
| 6.4 | Temperature Cycling | Subject the discriminator to －25℃ for 30 min. followed by a high temperature of ＋85℃ for 30 min. Cycling shall be repeated 5 times. Discriminator shall be measured after being placed in natural conditions for 1 hour. | It shall fulfill the specifications in Table 1. |
| 6.5 | Vibration | Subject the discriminator to vibration for 2 hours each in x y and z axis with the amplitude of 1.5mm, the frequency shall be varied uniformly between the limits of 10Hz-55Hz and then discriminator shall be measured. | It shall fulfill the specifications in Table 1. |

Table Continue

| | | | |
|---|---|---|---|
| 6.6 | Mechanical Shock | Discriminator shall be measured after 3 times' random dropping from the height of 100cm on concrete floor. | No visible damage and it shall fulfill the specifications in Table 1. |
| 6.7 | Resistance to Soldering Heat | Lead terminals are immersed up to 2 mm from discriminator's body in soldering bath of 260 ± 5 ℃ for 5 ± 1 seconds and then discriminator shall be measured after being placed in natural conditions for 1 hour | It shall fulfill the specifications in Table 1. |
| 6.8 | Solderability | Lead terminals are immersed up to 2mm from discriminator's body in soldering bath of 250 ±5℃ for 2±0.5 sec. | More than 95% of the terminal surface of the discriminator shall be covered with fresh solder. |
| 6.9<br>6.9.1<br>6.9.2 | Terminal Strength<br>Terminal Pulling<br>Terminal Bending | Force of 5N is applied to each lead in axial direction for 10±1 sec.<br>When force of 5N is applied to each lead in axial direction, the lead shall folded up 90° from the axial direction and folded back to the axial direction. The speed of folding shall be each 3 seconds. | No visible damage and it shall fulfill the specifications in Table 1. |

Table 1

| Item | Specification after test |
|---|---|
| Center Frequency drift | ±30kHz max |
| Recovered Audio Voltage drift | ±2dB max |
| Note ： The limits in the above table are referenced to the initial measurements. | |

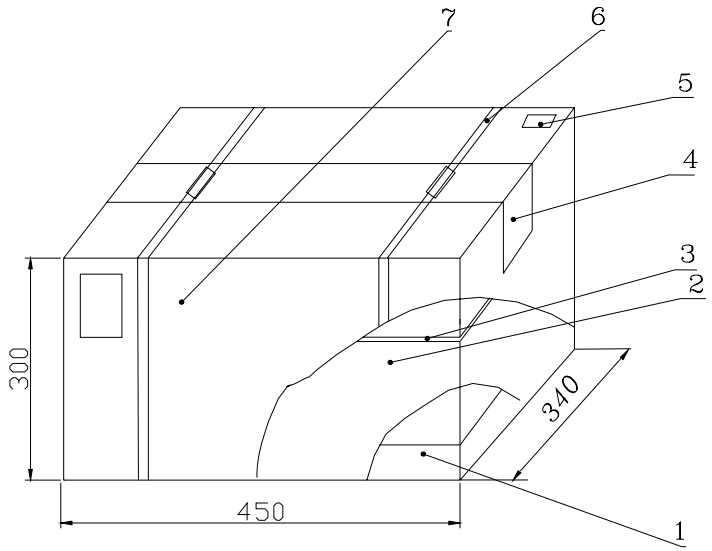
# 7 PACKAGE

To protect the products in storage and transportation， it is necessary to pack them（outer and inner package）.On paper pack, the following requirements are requested.

## 7.1Dimensions and Mark

At the end of package, the warning (moisture proof, upward put) should be stick to it.

Dimensions and Mark (see below)




| NO. | Name | Quantity | Notes |
|---|---|---|---|
| 1 | Inner Box | 40 | |
| 2 | Box | 2 | |
| 3 | Package | 1 | |
| 4 | Adhesive tape | 1.2m | |
| 5 | Label | 1 | |
| 6 | Belt | 2.9m | |
| 7 | Certificate of approval | 1 | |

7.2 Section of package

Package is made of corrugated paper with thickness of 0.8cm.Package has 2 inner boxes, each has 20 inner boxes (each box for plastic bag).

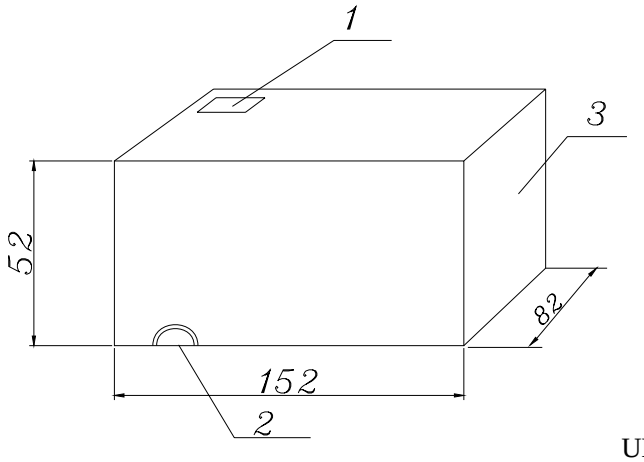
7.3 Quantity of package

Per plastic bag 500 pieces

Per inner box 3 plastic bag

Per package 40 inner boxes（60000 pieces of piezoelectric ceramic part ）

7.4 Inner box Dimensions




UNIT: mm

| | |
|---|---|
| 1 | Label |
| 2 | QC Label |
| 3 | Inner Box |

Pars shall be packaged in box with hold down tape upside. Part No., quantity and lot No.

8 OTHER

8.1 Caution of use

8.1.1 Do not use this product with bend. Please don't apply excess mechanical stress to the component and terminals at soldering.

8.1.2 The component may be damaged when an excess stress will be applied.

8.1.3 Conformal coating of the component is acceptable, However the resin materials ,curing temperature and other process conditions should be evaluated to conform stable electrical characteristics are maintained.

8.2 Notice

8.2.1 This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit.

8.2.2 Please return one of this specification after your signature of acceptance.

8.2.3 When something gets doubtful with this specifications, we shall jointly work to get an agreement.