QJ–14218F–2007

SPECIFICATION

OF PRODUCTS

CUSTOMER □_____

PRODUCT NAME□CERAMIC DISCRIMINATOR

PART NUMBER □ JT10.7MG18AUAD0F-B0

PREVIOUS PART NUMBER□ JT10.7MG18

Approved by	Checked by	Drawn by

ZHEJIANG JIAKANG ELECTRONICS CO., LTD.

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Part Number Sheet	
Customer	
Supplier P/N	JT10.7MG18AUAD0F-B0
Customer P/N	

Customer's Approval Certificate	
Checked & Approval by	
Date	

Mark Of Modification	Reason Of Modification	Modification	Drawn	Checked	Approval	Date
@1	Technology modification		□□□	□□□	□□□	2011.03.20

Please return this copy after signing as a certification of your approval.

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1 SCOPE

This specification shall cover the characteristics of the ceramic discriminator with the type JT10.7MG18AUAD0F-B0.

2 PART NO

PART NUMBER	PREVIOUS PART NUMBER
JT10.7MG18AUAD0F-B0	JT10.7MG18
CUSTOMER PART NO	SPECIFICATION NO

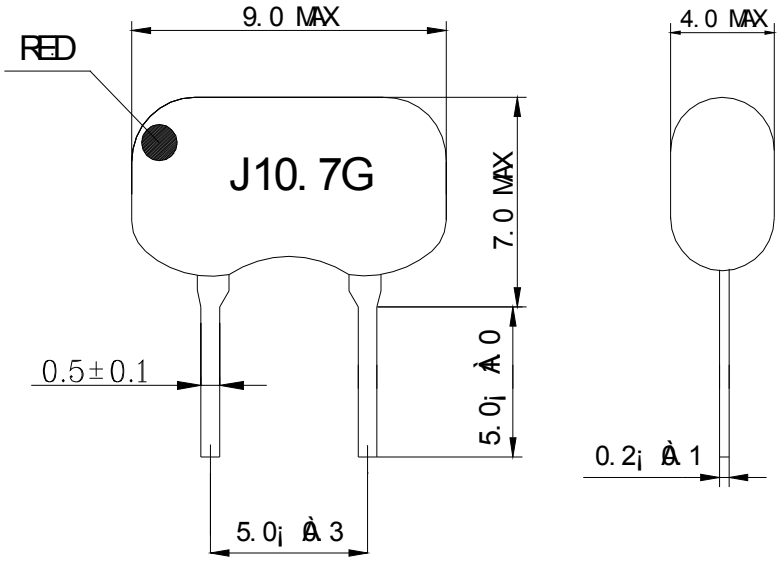
3 OUTLINE DRAWING AND DIMENSIONS

3.1 Appearance: No visible damage and dirt.

3.2 Construction: Leads are fixed on electrode and body is packaged by resin.

3.3 The products conform to the RoHS directive and national environment protection law.

3.4 Dimensions and mark



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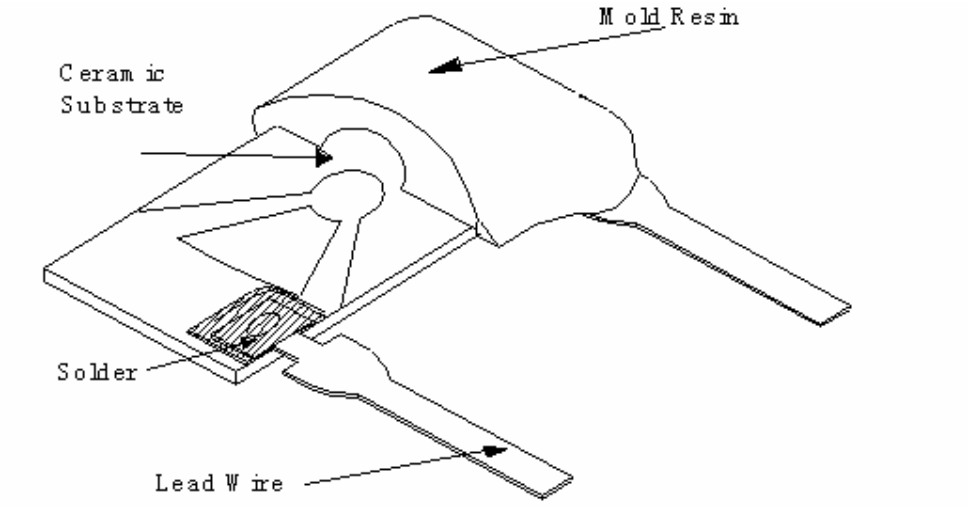
3.5 STRUCTURE@1



Component	Material
Lead Wire	Solder plating copper or iron wire
Mold Resin	epoxy resin
Solder	High-melting solder
Ceramic Substrate	Lead titanate-zirconate

4 RATING AND ELECTRICAL SPECIFICATIONS

4.1 RATING

Items	Content
Withstanding Voltage (V)	50 (DC□1min)
Insulation Resistance *Ri*,□MΩ□min.	100 □10V□1min□
Operating Temperature Range (□)	-25□+85
Storage Temperature Range (□)	-40□+85

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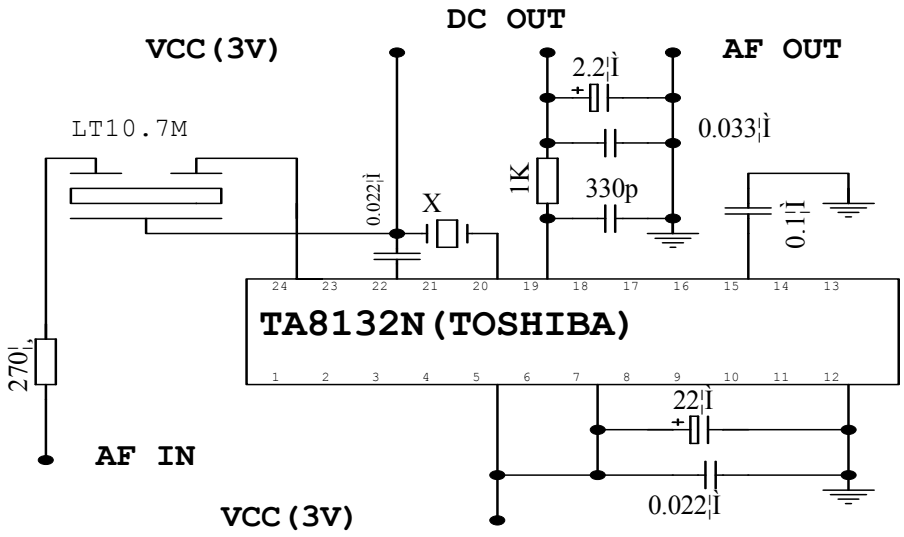
4.2 ELECTRICAL SPECIFICATIONS

Item	Requirements
Center Frequency fo (MHz)	10.700±0.030 (RED)
Recovered Audio Voltage (at fo) (mV) min	60
Distortion (at fo) (%) max	0.9
Recovered Audio 3dB Bandwidth (kHz) min	300
Temp. Coefficient of Frequency (ppm/□) max	±100 □Center Frequency drift□ -25□□+85□□

5 MEASUREMENT

5.1 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.

5.2Test Circuit



5.2.1 Input Signal□ Input Level□ 80dBμV

Modulation Frequency□1000Hz

Frequency Deviation□ ±22.5kHz

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5.2.2 Center Frequency（fo）: Center frequency is measured under the condition that modulated and 80dBμV 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

<table>
<tr><th>No</th><th>Item</th><th>Condition of Test</th><th>Performance Requirements</th></tr>
<tr><td>6.1</td><td>Humidity</td><td>Subject the discriminator at +40（±2） and 90%-95% R.H. for 96h.Discriminator shall be measured after being placed in natural conditions for 1h.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>6.2</td><td>High Temperature Exposure</td><td>Subject the discriminator to +85（±2） for 96h, discriminator shall be measured after being placed in natural conditions for 1h.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>6.3</td><td>Low Temperature Exposure</td><td>Subject the discriminator to –25（±2） for 96h.Discriminator shall be measured after being placed in natural conditions for 1h.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>6.4</td><td>Temperature Cycling</td><td>After temperature cycling of blow table was performed 5 times, Discriminator shall be measured after being placed in natural conditions for 1h.
Temperature | Time
–25±3（） | 30±3 min
85±3（） | 30±3 min</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>6.5</td><td>Vibration</td><td>Subject the discriminator to vibration for 2h 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.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
</table>

(To be continued)

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6 PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

No.	Item	Condition of Test	Performance Requirements
6.6	Drop	Discriminator shall be measured after 3 times' random dropping from the height of 70cm 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 10s ± 1s and then discriminator shall be measured after being placed in natural conditions for 1h	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 3s±0.5s.	More than 95% of the terminal surface of the Discriminator shall be covered with fresh solder.
6.9 6.9.1 6.9.2	Terminal Strength Terminal Pulling Terminal Bending	Force of 5N is applied to each lead in axial direction for 10s±1s. 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 3s.	No visible damage and it shall fulfill the specifications in Table 1.

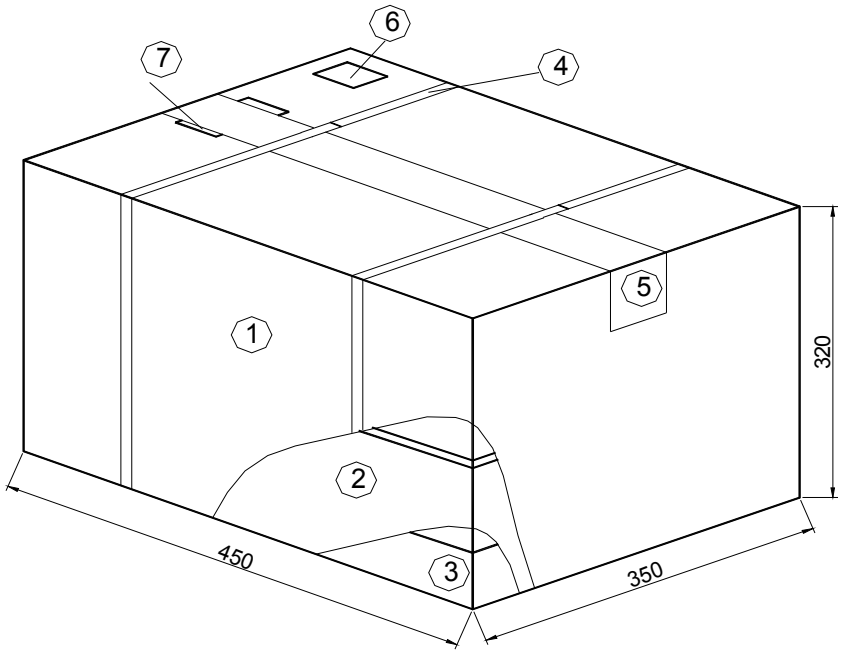
Table 1

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.

7.1 Dimensions and Mark



NO.	Name	Quantity
□	Package	1
□	Box	2
□	Inner Box	40
□	Belt	2.9 m
□	Adhesive tape	1.2 m
□	Label	1
□	Certificate of approval	1

7.2 Section of Package

Package is made of corrugated paper with thickness of 0.8cm.Package has 2 boxes, each has 20 inner boxes.

7.3 Quantity of Package

Per plastic bag 500 pieces

Per inner box 3 plastic bag

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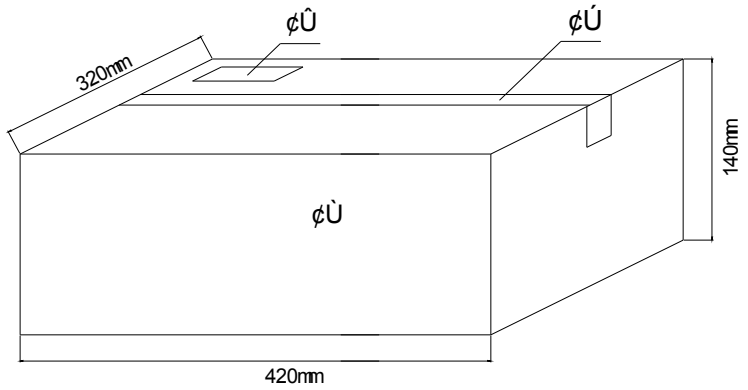
Per package 40 inner boxes

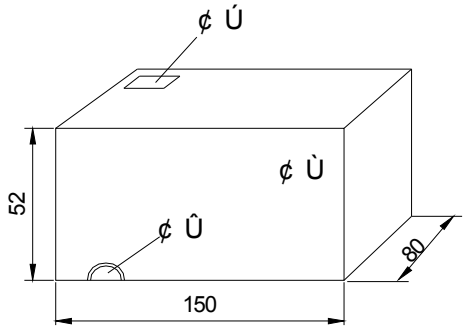
□60000 pieces of piezoelectric ceramic part □

7.4 Inner Package



NO.	Name	Quantity
□	Inner package	1
□	Adhesive tape	1.2 m
□	Label	1

7.5 Inner Box Dimensions



NO.	Name	Quantity
□	Inner Box	1
□	Label	1
□	QC Label	1

8□OTHER

8.1 Caution

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

8.1.2 Do not clean or wash the component for it is not hermetically sealed.

8.1.3 Do not use strong acidity flux□more than 0.2wt% chlorine content□in flow soldering.

8.1.4 Don't be close to fire.

8.1.5 All kinds of re-flow soldering must not be applied on the component.

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

8.1.7 Expire date (Shelf life) of the products is 12 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 12 months after delivery. If you store the products for a long time (more than 12 months), use carefully because the products may be degraded in the solderability or rusty. Please confirm solderability and characteristics for the products regularly.

8.1.8 Please contact us before using the product as automobile electronic component.

8.2 Notice

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

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

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