深圳市晶科鑫实业有限公司

样品承认书

客户代码：	
物料名称：	贴片晶振
规格型号：	陶瓷贴片 ZTTCV 3pin 16MHz ±0.30% -20~80℃
P N/ SJK：	ZTTCV16M3731K30P3W
环保属性：	■RoHS ■REACH ■HF □PAHS □其它
版 次：	A1 2017-5-10 初版
湿敏等级：	一级

承 认 签 章					
供 应 商 承 认			（ ）公 司 承 认		
制定	审 核	核 准	工 程 师	审 核	批 准
贺丹斌	李相同	刘惠光			
SJK 支持			盖章签署		
FAE_EMAIL			日 期		
日 期			批示： □接受 □有条件接受		
备注:					

FEATURE

This specification shall cover the characteristics of the ceramic resonator with the type **ZTTCV16.00MX**

ELECTRICAL SPECIFICATIONS（电气参数）

2.1 RATING

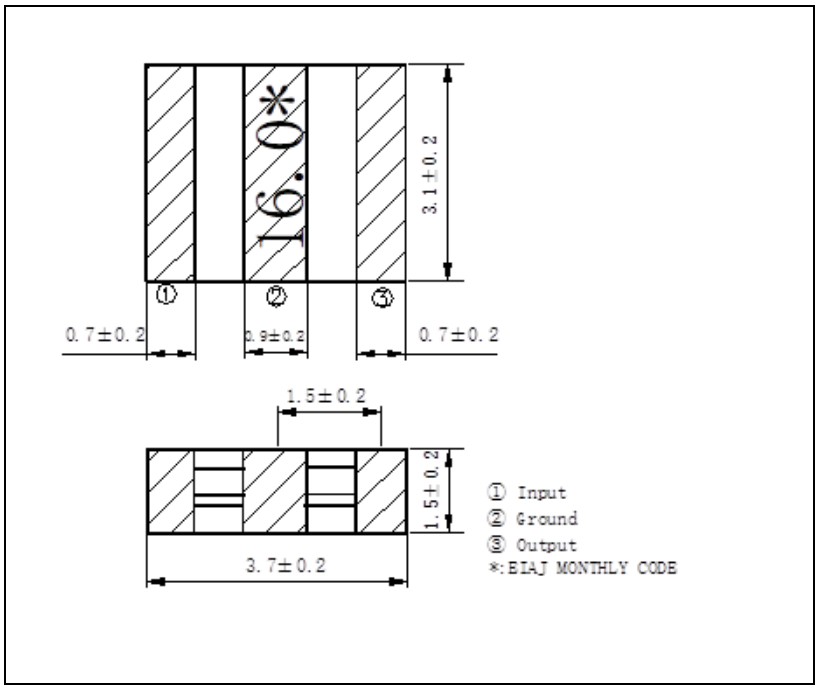
Items	Requirement
Withstanding Voltage (V)	50 (DC，1min)
Insulation Resistance Ri,（MΩ）min.	500（100V，1min）
Operating temperature	-20℃～＋80℃
Storage temperature	-55℃～＋85℃
Rating Voltage U_R（V）	6V DC
	15V p-p

2.2 ELECTRICAL SPECIFICATIONS

Items	Requirement
Oscillation Frequency Fosc（MHz）	16.000
Frequency Accuracy （%）	±0.5
Resonant Impedance Ro（Ω）max.	40
Temperature Coefficient of Oscillation Frequency （%） max.	±0.3（Oscillation Frequency drift，-20℃～+80℃）
Oscillation Frequency Aging Rate (%) max *	±0.3 (From initial value)

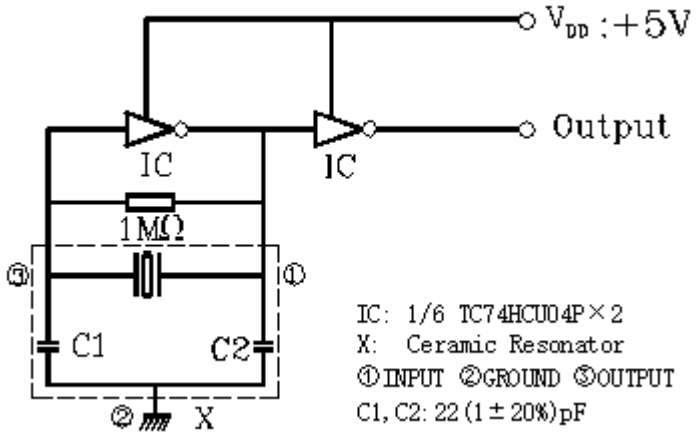
* Components shall be left in a chamber of +85±2℃ for 1000 hours, then measured after leaving in natural condition for 1 hours.

Dimension（尺寸）（Unit：mm）

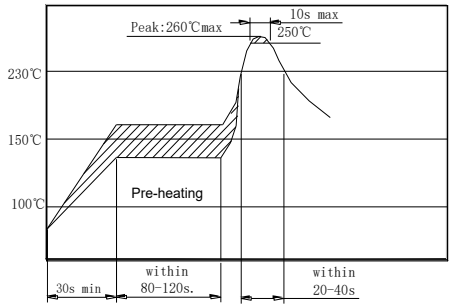


TEST CIRCUIT

Parts shall be tested under the condition (Temp.：20±15℃,Humidity ：65±20% R.H.) unless the standard condition(Temp.：25±3℃,Humidity ：65±10% R.H.) is regulated to measure.



RELIABILITY TEST SPECIFICA TIONS（可靠性测试标准）

<table>
<tr><th>No</th><th>Item</th><th>Condition of Test</th><th>Performance Requirements</th></tr>
<tr><td>1</td><td>Humidity</td><td>Keep the resonator at 40℃±2 ℃ and 90%-95% RH for 96h. Then Release the resonator into the room Condition for 1h prior to the Measurement.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>2</td><td>High Temperature Exposure</td><td>Subject the resonator to 85℃±2 ℃ for 96h, then release the resonator into the room conditions for 1h prior to the measurement.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>3</td><td>Low Temperature Exposure</td><td>Subject the resonator to -55℃±2 ℃ for 96h, then release the resonator into the room conditions for 1h prior to the measurement.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>4</td><td>Temperature Cycling</td><td>After temperature cycling of blow table was performed 5 times, resonator shall be measured after being placed in natural conditions for 1h.
<table><tr><th>Temperature</th><th>Time</th></tr><tr><td>–25±3℃</td><td>30±3 min</td></tr><tr><td>85±3℃</td><td>30±3 min</td></tr></table></td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>5</td><td>Vibration</td><td>Subject the resonator 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 10 Hz—55Hz.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>6</td><td>Mechanical Shock</td><td>Drop the resonator randomly onto a wooden floor from the height of 100cm 3 times.</td><td>It shall fulfill the specifications in Table 1.</td></tr>
<tr><td>7</td><td>Soldering Test</td><td>Components shall be measured after applying twice of the re-flow soldering with following temperature profile and leaving in natural condition for 1 hour.
 
</td><td>It shall fulfill the specifications in Table 1.</td></tr>
</table>

PHYSICAL AND ENVIRONMENAL CHARACTERISICS

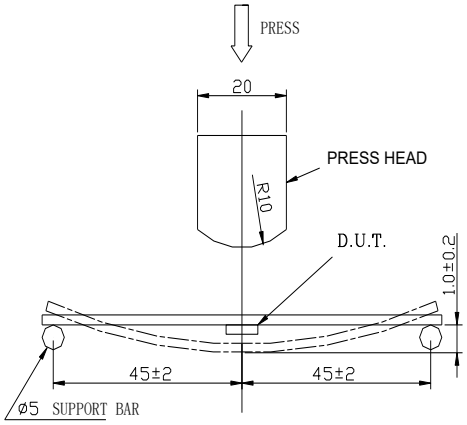
No	Item	Condition of Test	Performance Requirements
8	Solder Ability	Dipped in 245℃±5 ℃ solder bath for 3s±0.5 s with rosin flux (25wt% ethanol solution.)	The terminals shall be at least 95% covered by solder.
9	Board Bending	Mountaglass-epoxyboard (Width=40mm,thickness=1.6mm),then bend it to 1mm displacement and keep it for 5s. (See the following figure) 	Mechanical damage such as breaks shall not occur.

Table 1

Item	Specification after test
Oscillation Frequency Change △Fosc/Fosc (%) max	±0.3
Resonant Impedance Ro（Ω）max.	45
The limits in the above table are referenced to the initial measurements.	