



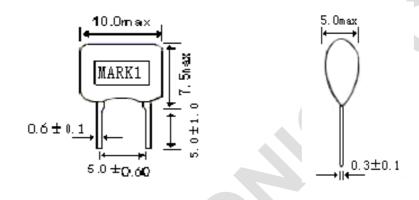
1. **SCOPE**

This specification is applied to the ceramics resonator used for the clock Oscillation of Microprocessor.

2. MODEL NAME

Part Name	Customer's Part number	Drawing No.
ZTA40.0MX		

3. **DIMENSIONS**



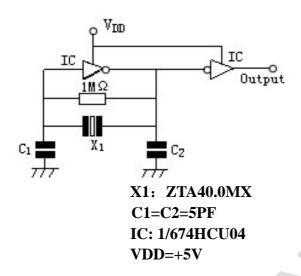
MARK 1: ZTA40.0MX





4. TEST CIRCUIT

Parts shall be measured under a condition (Temp.: $3\sim35$ °C.Hum.: $45\sim85$ %) unless any Necessity to measure under a standard condition (Temp.: 20 ± 2 °C.Humi.: 65 ± 5 %) is occurred.



5. ELECTRICAL CHARACTERISTICS

	Item	Requirements
5-1	Frequency Accuracy	40.0M±0.5%
5-2	Resonant Impedance	35Ω max
5-3	Operating Temperature Range Storage Temperature Range	-20 to +80 -30 to +85
5-4	Stability Temperature	±0.3% max. (-20-+80°C)
5-5	Withstanding Voltage	DC 100V. (less than 5 sec)
5-6	Insulation Resistance	100 M Ω min (DC 10V)
5-7	Aging for 10 Years	±0.5±% max





6.PHYSICAL AND ENVIRONMENTAL CHARCTERISTICS

6-1 axial direction. damage and measured values si meet Item 5. 6-1 Lead Bending Firmed the terminal up to 2mm. Resonator lead shall be subjected to withstand against 90° bending its stem. This operation shall be done toward both direction. meet Item 5. 6-2 Solder ability The terminals of the Resonator shall be immersion in a soldering bath (230±5°C) for 3±0.5sec. (refer to Mil-STD-202E-208C) The solder shall coat at least 95% of terminal. 6-3 Vibration Resonator shall be measured after being Applied vibration as below. Vibration Freq:10-55Hz Amplitude :1.5mm Directions :3axial directions Time :2bour/each direction The measured value 6-4 Random Drop Resonator shall be measured after 3 times Random dropping from the height of 1m. Concrete floor Shall meet table 1 6-5 Soldering 1.5mm from Resonator body for 3±0.5 sec or dipped in (260±5°C) melted solder for 10±1 sec. Resonator shall be measured after being placed in natural condition for 1 hour. Shall meet table 1	6-1 axial direction. damage and 6-1 Lead Bending Firmed the terminal up to 2mm. Resonator lead shall be subjected to withstand against 90° bending its stem. This operation shall be done toward both direction. meet Item 5. 6-2 Solder ability The terminals of the Resonator shall be immersion in a soldering bath (230±5°C) for 3±0.5sec. (refer to coat at least 95% Mil-STD-202E-208C) The solder sha 6-2 Vibration Resonator shall be measured after being terminal. 6-3 Applied vibration as below. vibration Freq:10-55Hz terminal. 6-3 Applied vibration as below. vibration Freq:10-55Hz The measured after 3 times 6-4 Random Drop Resonator shall be measured after 3 times Shall meet table 1 6-4 Random dropping from the height of 1m. Concrete floor Concrete floor 6-5 Soldering 1.5mm from Resonator body for Shall meet table 1 6-5 Soldering 1.5mm from Resonator body for Heat 3±0.5 sec or dipped in (260±5°C) melted solder to a point (260±5°C) melted solder for 10±1 sec. Resonator shall be measured after being placed in natural Shall meet table 1		Test Item	Condition of Test	Requirements
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condition for 1 hour.	condition for 1 hour.				
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	Test Item	Condition of Test	Requirements
6-6	Humidity	After being placed in a chamber (Humi: 90-95%RH Temp:40±2℃) for 96 hours	
		Resonator shall be measured after placed in	
		natural condition for 1 hour.	
	Life Test	After being placed in a chamber 85±	
6-7	(High	2° for 96 hours, Resonator shall be	
	temperature)	measured after being placed in natural	
		condition for 1 hour.	
	Life Test (Low	Stored in a chamber (Temp:-20±2°C) for	
6-8	temperature)	1000 hours, Resonator shall be measured	The measured values
		after being placed in natural condition for 1	Shall meet table l
		hour.	
	Thermal shock	After temperature cycling of -20°C (30	
6-9		min) to +80°C (30min) was performed 5	
		times the Resonator shall be measured	
		after being placed in natural condition for 1	
		hour.	

6. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Table 1

Item	Limit Value
Frequency shift	F/FO≤±0.3%
Resonant Impedance	Zr≪5Ω

Note: The limits in the above table are referenced to the initial Measurements.





- 7. NOTICE
- 7.1 Ceramic Resonator should be stowed in storeroom. And the surrounding atmosphere Is acid less, alkali-free and no other harmful impurity.
- 7.2 The package for ceramic damage.
- 7.3 This specification limits the quality of the component as a single unit. Please make sure that the component is evaluated and confirmed the duawing When it is mounted to your product.

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