

CITIZEN WATCH CO., LTD.
西鐵城鐘錶有限公司

REMARK
Our Ref. No.:
Date :

規格書
SPECIFICATION

產品名稱：	
Product Name :	QUARTZ CRYSTAL
型號：	
Model :	CFS-206
周波數：	
Frequency :	32.768kHz
客戶參考編號：	
Customer's Ref. No.:	

APPROVED BY :	
公司蓋章	

Sales Division

Manufacturer

CITIZEN WATCH CO., LTD.
SALES DIV.
Honcho, Tanshi-city, Tokyo, Japan
Tel: 0424-67-6214

MIYOTA CO., LTD.
Miyota, Miyota-machi, Kitasaku-gun
Nagano, Japan
Tel: 0267-32-3331

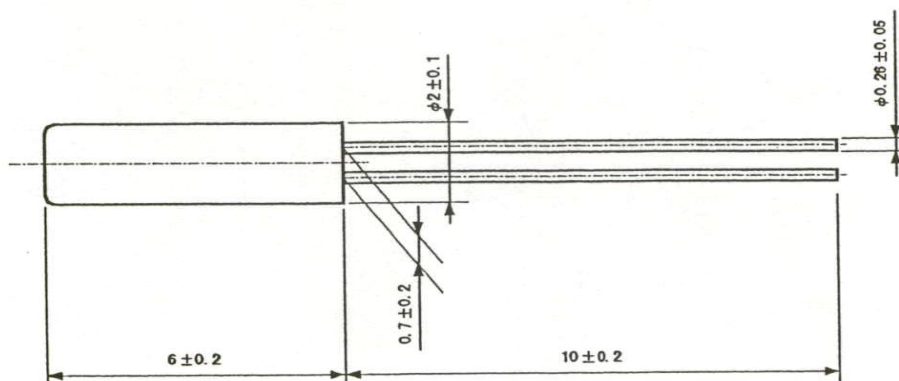
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SPECIFICATION

1	型號 Type of Holder	CFS-206
2	公称周波数 Nominal Frequency	32.768kHz
3	振動方式 Mode of Vibration	TF
4	負載電容 Load Capacitance	12.5 pF
5	諧振阻抗 Equivalent Series Resistance	35K Ω Max. at 25°C
6	周波数容許偏差 Adjustment Tolerance	± 5 ppm Max. at 25°C
7	温度特性 Tolerance over the Temperature Range	$\pm$ ppm Max.
8	動作温度範圍 Operating Temperature Range	-20°C~+70°C
9	保存温度範圍 Storage Temperature Range	-40°C~+85°C
10	驅動功率 Level of Drive	1 μ W Max.
11	並列電容 Shunt Capacitance	1.35pF
12	絕緣抵抗 Insulation Resistance	500M Ω MIN / DC100 $\pm$ 15V

外觀尺寸 Dimensions UNIT : mm



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Reliability Test Items

Test Item	Test Method	Spec. No.
1. Mechanical Performance Tests		
1.1 shock	Orient the sample in any attitude and drop it three times from a height of 75 cm onto a hardwood board with a thickness of 3 cm.	A
1.2 Vibration	Subject the sample to 1.5-minute cycles of frequencies of 10 to 500Hz and amplitudes of 1.5 mm or acceleration to 10G for two hours in each of the X, Y, and Z directions, for 6 hours in total.	A
1.3 Tensile Strength of Terminal	Apply a 1.0kg tensile load to each terminal and sustain it for 30±5 seconds.	A.C
1.4 Bending Strength of Terminal	Apply a 0.5kg load to one of the terminals, and after tilting the main unit for 90°, restore to its original attitude. Then, tilt it in an opposite direction for 90°, and restore to its original attitude. (See Fig. 1)	A.C
1.5 Solderability	Dip terminals in RMA flux for 5±0.5 sec. Under room temperature. Dip Terminals in a 230±5 °C solder bath for 5±0.5 seconds. The solder shall leave an undipped terminal length of 2mm at their base.	D
1.6 Resistance to Soldering Heat	Dip Terminals in a 260±5 °C solder bath for 10±0.5 seconds. The solder shall leave an undipped terminal length of 2mm at their base.	A
1.7 Leakage Test	Take measurements with a helium leakage detector.	E
2. Environmental Tests		
2.1 Cold	Expose the sample in an inoperative mode to 240 hours in a -40 °C.	A
2.2 Dry Heat	Expose the sample in an inoperative mode to 240 hours in a +85 °C.	B
2.3 Damp Heat	Expose the Sample in an inoperative mode to 240 hours in a +65 °C, and 95%RH.	B
2.4 Thermal Shock	Subject the sample to 5 temperature variation cycles at -40 °C for 30 minutes and +100 °C for the next 30 minutes in each cycle.	A
Specifications		
No.	Specification	
A	Any variation between the pre- and post-test frequencies shall remain within ±5ppm. The post-test equivalent series resistance shall remain within its specified tolerance range.	
B	Any variation between the pre- and post-test frequencies shall remain within ±5ppm. The post-test equivalent series resistance shall remain within its specified tolerance range.	
C	After each test, no visible damage shall be manifested, nor shall the hermetic seal break down.	
D	At least 90% of each dipped area shall be covered by fresh solder.	
E	$1 \times 10^{-2} \mu\text{Pa} \cdot \text{m}^3/\text{s}$ Max 以下	
※Measurements shall be taken at 25±2 °C, and after each test, the sample be exposed to one to two hours at 25±2 °C.		

