PRELIMINARY

1. STYLE

MURATA P/N	CENTER FREQUENCY (NOMINAL)
LDA312G7313F-237	2730.00 MHz

2. OPERATING TEMPERATURE

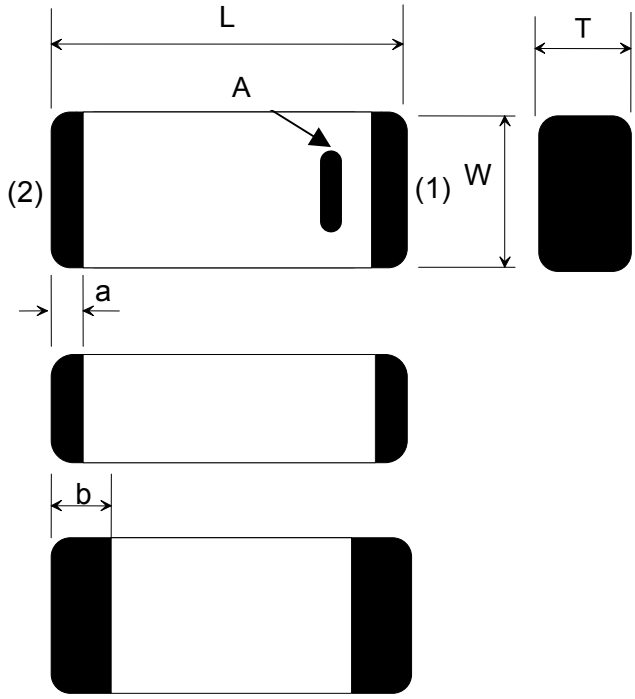
-40 °C ~ +85 °C

3. SPECIFICATIONS

According to Pages 3/15 ~ P7/15.

PRELIMINARY

4. CONSTRUCTION, DIMENSIONS & MARKING



	Meaning
A	Directional Input Mark

(in mm)

Mark	Dimensions	Mark	Dimensions
L	3.2±0.2	a	0.2±0.2
W	1.6±0.2	b	0.5±0.2
T	1.2+0.1/-0.2	-	-

TERMINAL CONFIGURATION

Terminal No.	Terminal Name	Terminal No.	Terminal Name
(1)	Feeding Point	(2)	NC

Terminal of "NC" should be connected to the floating land.

PRELIMINARY

5. ELECTRICAL CHARACTERISTICS

Nominal center frequency at input V.S.W.R (fo)	2730.00 MHz
Tolerance of center frequency at input V.S.W.R	2730.00 ± 68.00 MHz (at -40 ~+85 °C)
Nominal Impedance	50 Ω
Power capacity	500 mW max.

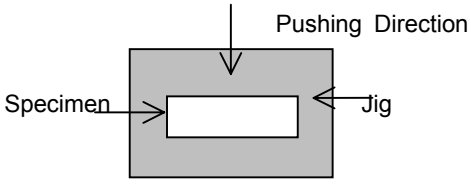
NOTE : The above-mentioned values have been obtained according to our own measuring methods(testing jig : Fig.1,Zo=50 Ω) and may vary depending on the circuit, in which this component is actually incorporated.
You are, therefore, kindly requested to test the performance of this component incorporating in your set.

PRELIMINARY

6. OTHER SPECIFICATION AND METHODS

Table.1

Tolerance of nominal center frequency	Nominal center frequency ± 8.00 MHz

No.	Items		Specifications	Test Methods
1	Vibration Resistance	Appearance	No severe damages	Solder specimens on the testing jig (glass fluorine boards) shown in appended Fig.1 by an eutectic solder. The soldering shall be done either by iron or reflow and be conducted with care so that the soldering is uniform and free of defect such as by heat shock. Frequency : 10~2000~10 Hz Acceleration : 196 m/s^2 Direction : X,Y,Z 3 axis Period : 2 h on each direction Total 6 h.
		Electrical Specifications	Satisfy the frequency tolerance listed table. 1	
2	Shock	Appearance	No severe damages	Solder specimens on the testing jig (glass fluorine boards) shown in appended Fig.1 by an eutectic solder. The soldering shall be done either by iron or reflow and be conducted with care so that the soldering is uniform and free of defect such as by heat shock. Acceleration : 980 m/s^2 Period : 6 ms. Cycle : 10 times
		Electrical Specifications	Satisfy the frequency tolerance listed table. 1	
3	Deflection		No damage with 2mm deflection	Solder specimens on the testing jig (glass epoxy boards) shown in appended Fig.2 by an eutectic solder. The soldering shall be done either by iron or reflow and be conducted with care so that the soldering is uniform and free of defect such as by heat shock.
4	Soldering strength (Push Strength)		9.8 N Minimum	Solder specimens onto test jig shown below. Apply pushing force at 0.5mm/s until electrode pads are pealed off or ceramics are broken. Pushing force is applied to longitudinal direction. 
5	Solderability of Termination		75% of the terminations is to be soldered evenly and continuously.	Immerse specimens first a ethanol (JIS-K-8101) solution of rosin (JIS-K-5902)(25% rosin in weight proportion), then in an eutectic solder solution for 2±0.5 s at 230±5 °C. Preheat : 100 ~ 120 °C、60 s Solder Paste : Eutectic Solder) Flux : Solution of ethanol and rosin (25 % rosin in weight proportion)

<table>
<tr><td>6</td><td>Resistance to Soldering Heat (Dipping)</td><td>Appearance</td><td>No severe damages</td><td>Immerse the chip in the eutectic solder solution of 270±5 °C for 20±0.5 s (flow soldering bath) after preheating for 1 min at 120 to 150 °C.
Then set it for 2 to 24 h at room temperature and measure.</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Resistance to Soldering Heat (Reflow)</td><td>Appearance</td><td>No severe damages</td><td rowspan="2">Preheat Temperature : 160±10 °C
Preheat Period : 60 s. min.
Peak Temperature : 255±5 °C
Peak Temp. Period : 10 s.
Specimens are soldered twice with the above condition, then kept in room condition for 24 h before measurements.</td></tr>
<tr><td>Electrical specifications</td><td>Satisfy the frequency tolerance listed table. 1</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">High Temp. Exposure</td><td>Appearance</td><td>No severe damages</td><td rowspan="2">Temperature : 85±2 °C
Period : 1000+48/-0 h
Room Condition : 2 ~ 24 h</td></tr>
<tr><td>Electrical specifications</td><td>Satisfy the frequency tolerance listed table. 1</td></tr>
<tr><td rowspan="2">9</td><td rowspan="2">Temperature Cycle</td><td>Appearance</td><td>No severe damages</td><td rowspan="2">Set the specimens to the supporting jig in the same manner and under the same conditions as Fig.1 and conduct the 100. cycles according to the temperatures and time shown in the following table. Set it for 2 to 24 h at room temperature, then measure.
<table><tr><td>Step</td><td>1</td><td>2</td></tr><tr><td>Temp.(°C)</td><td>Min. Operating Temp.+0/-3</td><td>Max. Operating Temp.+3/-0</td></tr><tr><td>Time(min)</td><td>30±3</td><td>30±3</td></tr></table></td></tr>
<tr><td>Electrical specifications</td><td>Satisfy the frequency tolerance listed table. 1</td></tr>
<tr><td rowspan="2">10</td><td rowspan="2">Humidity (Steady State)</td><td>Appearance</td><td>No severe damages</td><td rowspan="2">Temperature : 85±2 °C
Humidity : 80 ~ 85 %RH
Period : 1000+48/-0 h
Room Condition : 2 ~ 24 h</td></tr>
<tr><td>Electrical specifications</td><td>Satisfy the frequency tolerance listed table. 1</td></tr>
</table>

Excessive mechanical force or thermal stress may damage the products. Appropriate handling is required.

Production Site

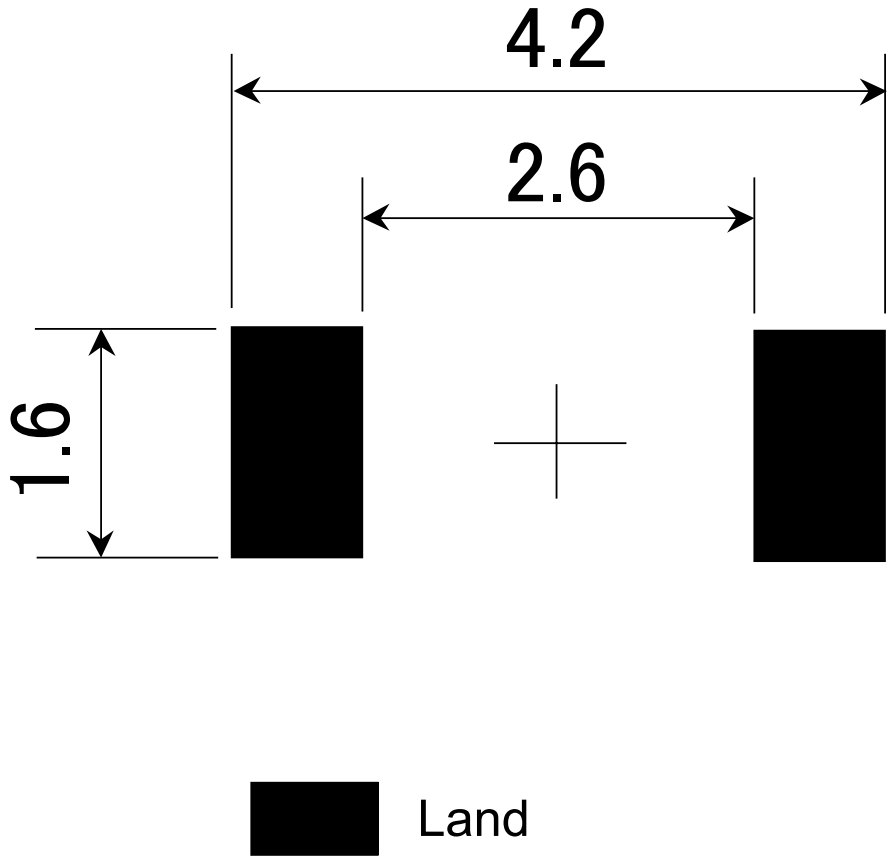
OKAYAMA MURATA MFG.CO.,LTD.
FUKUI MURATA MFG.CO.,LTD.

PRELIMINARY

Fig. 1

(in mm)

Land Pattern



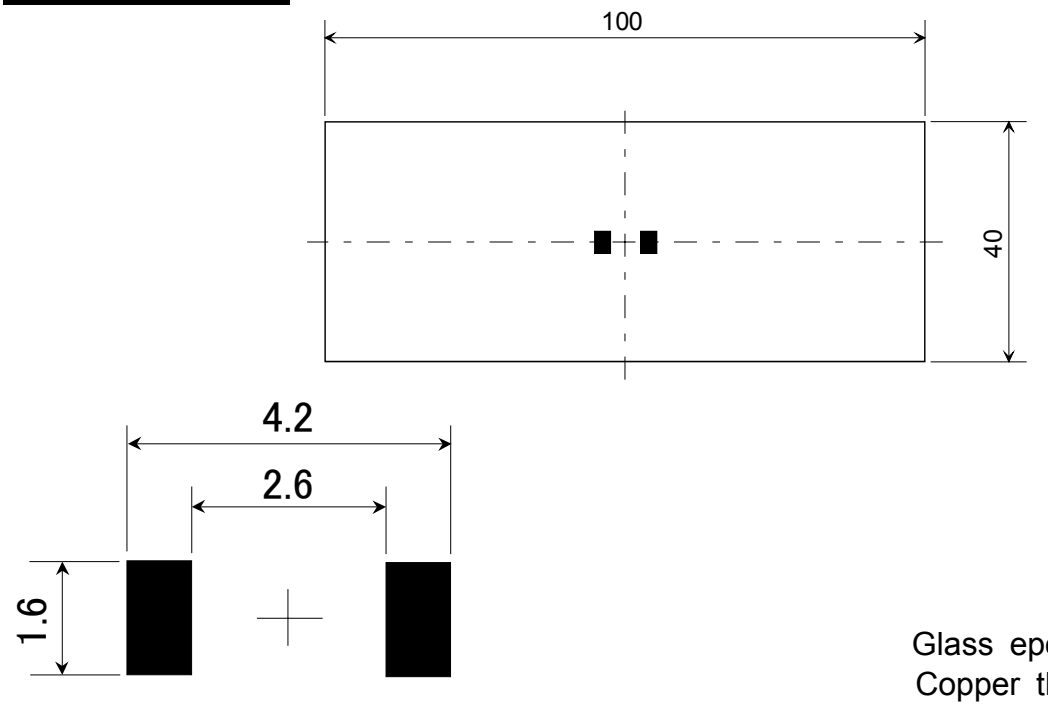
Glass-fluorine board t=0.6mm
Copper thickness 35μm

PRELIMINARY

Fig. 2-1

Testing board

(in mm)

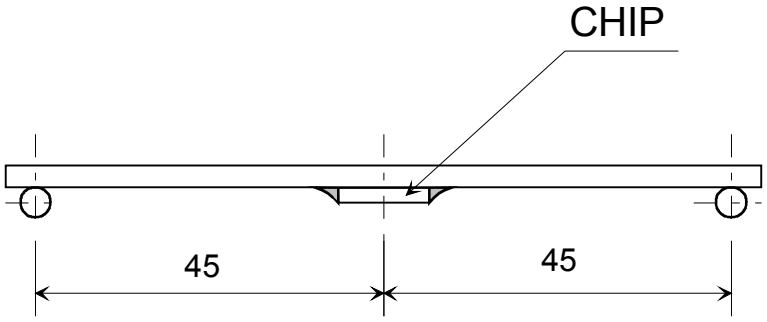


Glass epoxy board t=1.6mm
Copper thickness 35μm

Fig. 2-2

Mounted situation

(in mm)



Test method

(in mm)