



YI J I N ELECTRONI CS CO. , LTD

## 产品承认书

'Rt qf wev'cempqy rfg i o gpv

Client客户:

\_\_\_\_\_

Product产品:

声表面谐振器

Model型号:

**R315M D-11-DIP**

Tabulation 制表:

**Production**

'Date日期:

**2011-5-1**

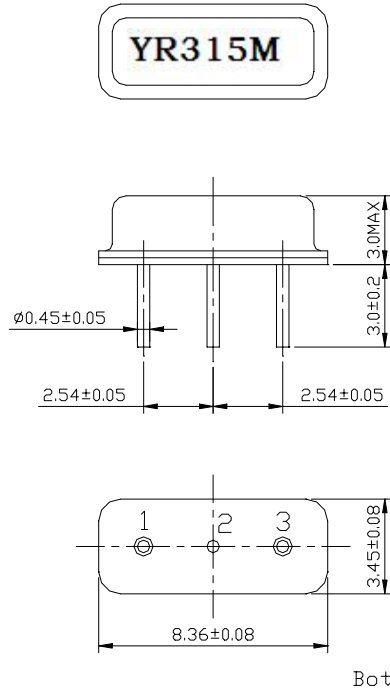
承認結果 CONCLUSION	客戶簽名 SIGNATURE	客戶承認章 STAMP	日期 DATE	備注 REMARK
合格 ACCEPT				
不合格 REJECT				

审核: \_\_\_\_\_

(请盖公章)

## 1. Package Dimension ( D11 )

Unit: mm



Pin No. Function

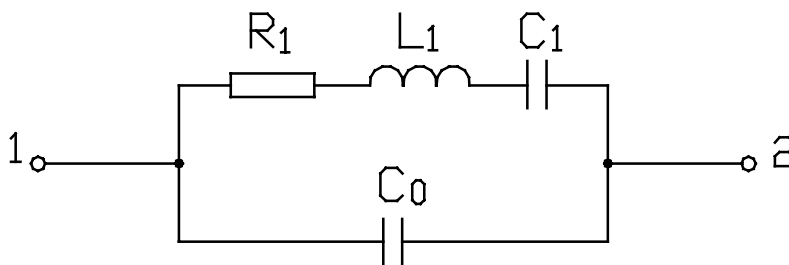
- |    |         |
|----|---------|
| 1. | Input   |
| 2. | G round |
| 3. | O utput |

## 2. Marking

YJ 315.00

1. Color: Black or Blue
2. D: Manufacture's logo
3. R1: One-port SAW Resonator
4. 315.00: Center Frequency ( MHz)

## 3. Equivalent LC Model



## 4. Performance

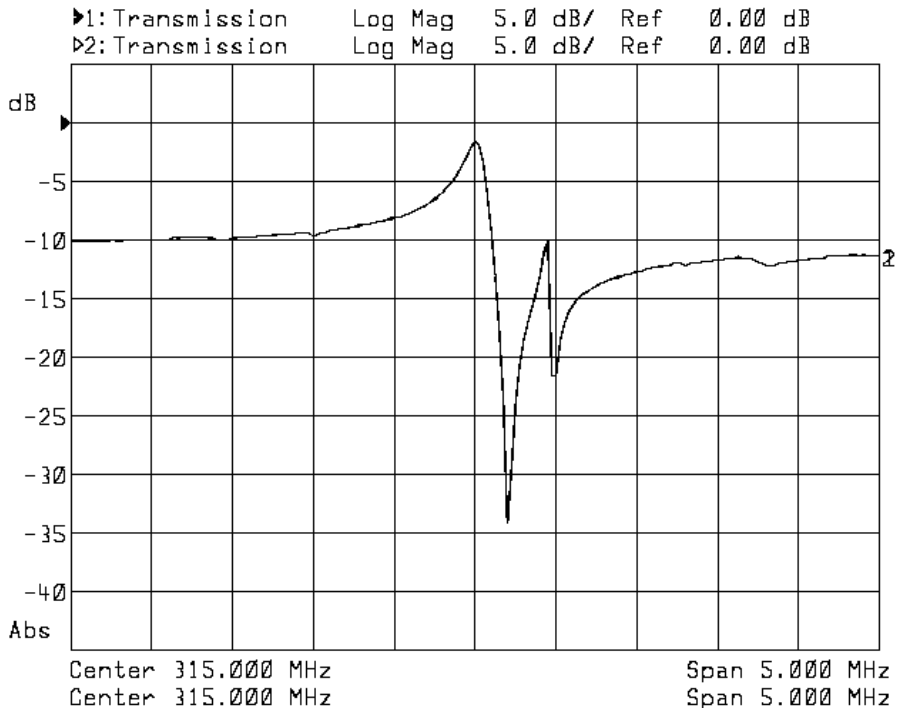
### 4.1 Maximum Rating

DC Voltage $V_{DC}$	10V
AC Voltage $V_{PP}$	10V (50Hz/60Hz)
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-45 °C to +85 °C
RF Power Dissipation	0dBm

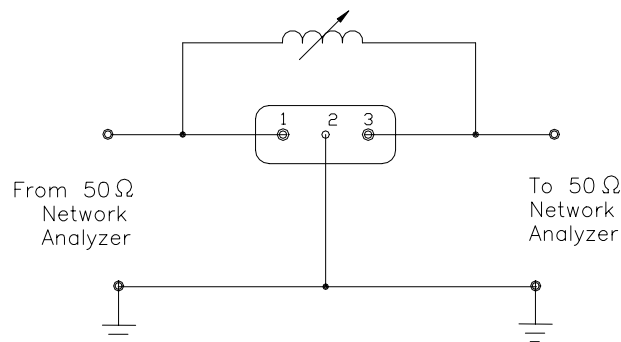
### 4.2 Electronic Characteristics

Item		Units	Minimum	Typical	Maximum
Center Frequency $f_0$		MHz	314.925	315	315.075
Insertion Loss		dB	—	1.3	2.5
Quality Factor	Unloaded Q	—	—	12,000	—
	50 $\Omega$ Loaded Q	—	—	1,900	—
Temperature	Turnover Temperature	°C	10	25	40
Stability	Turnover Frequency	KHz	—	$f_0$	—
	Freq.Temp.Coefficient	ppm/°C <sup>2</sup>	—	0.037	—
Frequency Aging		ppm/yr	—	$<\pm 10$	—
DC Insulation Resistance		M $\Omega$	1.0	—	—
RF Equivalent RLC Model	Motional Resistance $R_1$	$\Omega$	—	23	29
	Motional Inductance $L_1$	$\mu$ H	—	115.2	—
	Motional Capacitance $C_1$	fF	—	2.2	—
	Shunt Static Capacitance $C_0$	pF	2.1	2.4	2.7

### 4.3 Frequency Characteristics



### 4.4 Test Circuit



Note: Reference temperature shall be  $25 \pm 2^\circ\text{C}$ . However, the measurement may be carried out at  $5^\circ\text{C}$  to  $35^\circ\text{C}$  unless there is a dispute.

## 5. Reliability

5.1 Mechanical Shock: The components shall remain within the electrical specifications after 1000 shocks, acceleration  $392 \text{ m/s}^2$ , duration 6 milliseconds.

5.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20 Hz, amplitude 1.5 mm, for 2 hours.

5.3 Terminal Strength: The components shall remain within the electrical specifications after pulled 2 kgs weight for 10 seconds towards an axis of each terminal.

5.4 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the  $85^\circ\text{C} \pm 2^\circ\text{C}$  for 48 hours, then kept at room temperature for 2 hours.

5.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the  $-25^\circ\text{C} \pm 2^\circ\text{C}$  for 48 hours, then kept at room temperature for 2 hours.

5.6 Temperature Cycle: The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing ( one cycle:  $80^\circ\text{C}$  for 30 minutes  $\rightarrow$   $25^\circ\text{C}$  for 5 minutes  $\rightarrow$   $-25^\circ\text{C}$  for 30 minutes )than kept at room temperature for 2 hours.

5.7 Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at  $260^\circ\text{C}$  for  $10 \pm 1$  seconds, then kept at room temperature for 2 hours. (Terminal must be dipped leaving 1.5 mm from the case).

5.8 Solder Ability: Solder ability of terminal shall be kept at more than 80% after dipped in the solder flux at  $230^\circ\text{C} \pm 5^\circ\text{C}$  for  $5 \pm 1$  seconds.

## 6. Remarks

### 6.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

### 6.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

### 6.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.