



深圳市泰河电子有限公司
SHENZHEN TH ELECTRONICS CO;LTD

产品确认书

Product Confirmation

CUSTOMER: _____

Product :

声表面谐振器

Frequency:

R433M

Model:

F-11 DIP

DATE: _____

承认后请寄回一份

PLS SEND BACK ONE COPY TO US AFTER YOUR APPROVAL

承认结果 CONCLUSION	客户签名 SIGNATURE	客户承认章 STAMP	日期 DATE	备注 REMARK
合格 ACCEPT				
不合格 REJECT				

制表: 刘小姐 _____

审核: _____

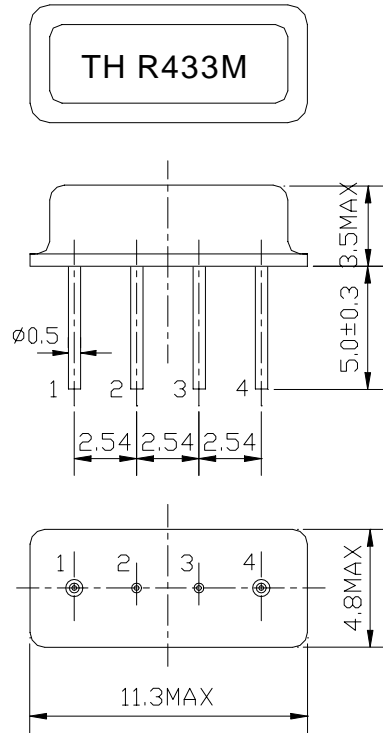
(公章)

尊敬的客户: 请您抽出一点时间, 在7-10个工作日内将承认书回签, 若未回签, 以视默认. 谢谢合作!

TH R433M 声表面谐振器F-11 DIP

1. Package Dimension (F-11)

Unit: mm



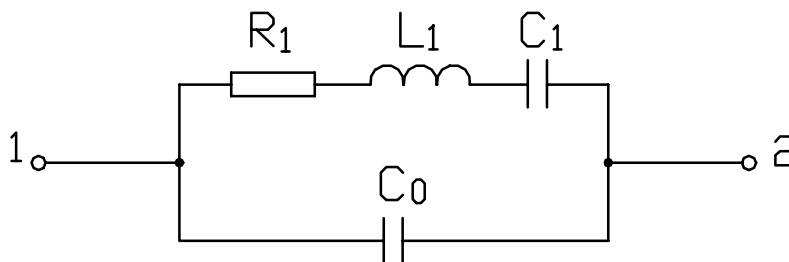
Pin No.	Function
1.	Input
2.	Ground
3.	Ground
4.	Output

2. Marking

TR433.92M

1. Color: Black or Blue
2. D: Manufacture's logo
3. R1: One-port SAW Resonator
4. 433.92: Center Frequency (MHz)

3. Equivalent LC Model



TH R433M 声表面谐振器F-11 DIP

4. Performance

4.1 Maximum Rating

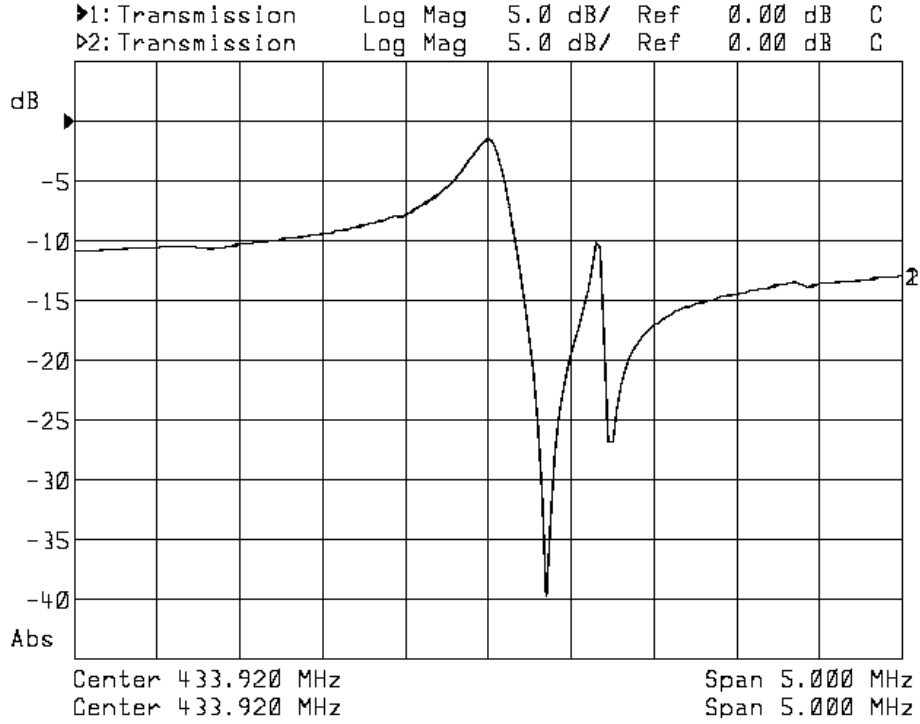
DC Voltage V_{DC}	10V
AC Voltage V_{PP}	10V (50Hz/60Hz)
Operation Temperature	-40°C to +85°C
Storage Temperature	-45°C to +85°C
RF Power Dissipation	0dBm

4.2 Electronic Characteristics

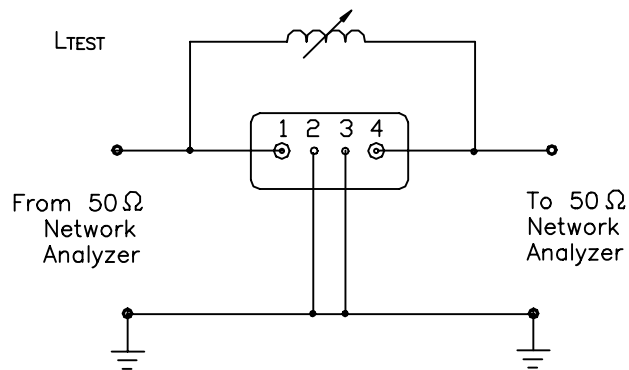
Item		Units	Minimum	Typical	Maximum
Center Frequency		MHz	433.845	433.92	433.995
Insertion Loss		dB	—	1.3	2.5
Quality Factor	Unloaded Q	—	—	11,000	—
	50 Ω Loaded Q	—	—	2,000	—
Temperature	Turnover Temperature	°C	—	25	—
Stability	Turnover Frequency	KHz	—	fo	—
	Freq. Temp. Coefficient	ppm/°C ²	—	0.032	—
Frequency Aging		ppm/yr	—	< ± 10	—
DC Insulation Resistance		M Ω	1.0	—	—
RF Equivalent RLC Model	Motional Resistance R_1	Ω	—	18	26
	Motional Inductance L_1	μ H	—	86	—
	Motional Capacitance C_1	fF	—	1.56	—
	Shunt Static Capacitance C_0	pF	1.7	2.0	2.3

TH R433M 声表面谐振器F-11 DIP

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°C to 35°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 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°C for 30 minutes \rightarrow 25°C for 5 minutes \rightarrow -25°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°C for 10 ± 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 ± 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.