

规格书编号

SPEC NO :

# 产品规格书

# SPECIFICATION

CUSTOMER 客户: \_\_\_\_\_  
PRODUCT 产品: SAW RESONATOR  
MODEL NO 型号: HDR423M-T039 ±150K  
PREPARED 编制: \_\_\_\_\_ CHECKED 审核: \_\_\_\_\_  
APPROVED 批准: \_\_\_\_\_ DATE 日期: 2006-5-11

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司  
Shoulder Electronics Limited

## 更改历史记录 History Record

更改日期 Date	规格书编号 Spec. No.	产品型号 Part No.	客户产品型号 Customer No.	更改内容描述 Modify Content	备注 Remark

## 1. SCOPE

This specification shall cover the characteristics of 1-port SAW resonator with used for remote-control security.

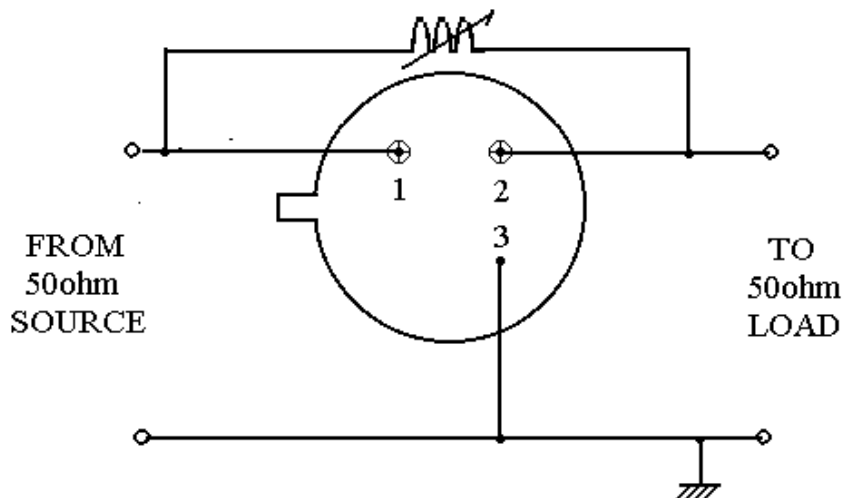
## 2. ELECTRICAL SPECIFICATION

DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-40°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

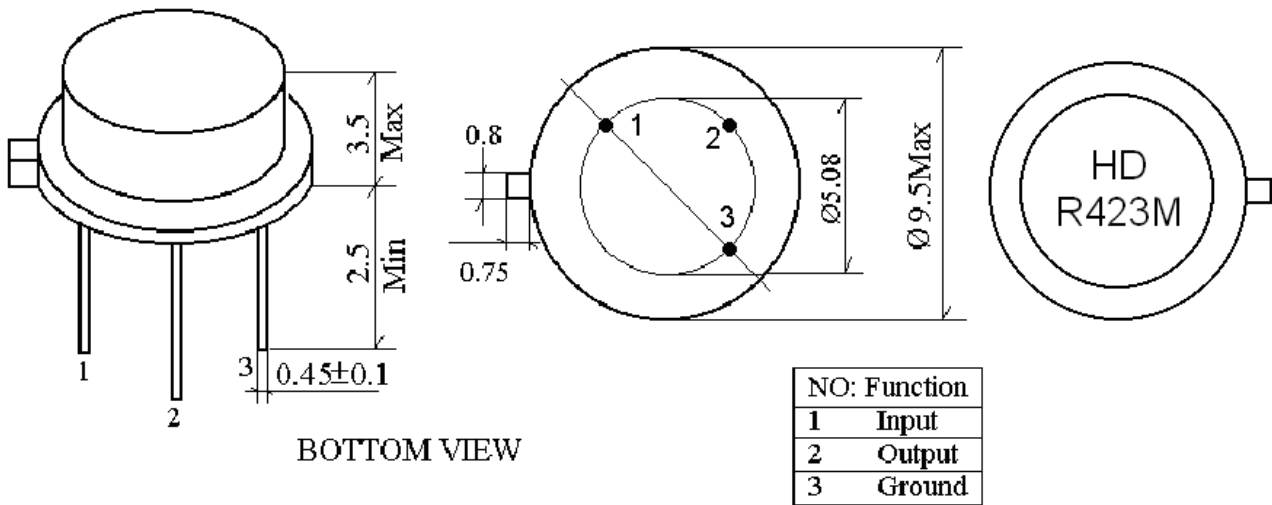
### 2.2 Electronic Characteristics

Item	Unites	Minimum	Typical	Maximum	
Center Frequency	MHz	423.070	423.220	423.370	
Insertion Loss	dB		1.5	2.5	
Quality Factor Unload Q		5000	12800		
50 Ω Loaded Q		1000	2000		
Temperature	Turnover Temperature	°C	10	25	40
Stability	Freq.temp.Coefficient	ppm/°C <sup>2</sup>	0.032		
Frequency Aging	ppm/yr		<± 10		
DC. Insulation Resistance	MΩ	1.0			
RF Equivalent RLC Model	Motional Resistance R1	Ω	19	26	
	Motional Inductance L1	μ H	74.835		
	Motional Capacitance C1	fF	1.8917		
Transducer Static Capacitance	pF		2.0		

## 3. TEST CIRCUIT



## 4. DIMENSION



## 5. ENVIRONMENTAL CHARACTERISTICS

### 5-1 High temperature exposure

Subject the device to +85°C for 16 hours. Then release the resonator into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2.2.

### 5-2 Low temperature exposure

Subject the device to -40°C for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2.2.

### 5-3 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +85°C for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in 2.2.

### 5-4 Resistance to solder heat

Dip the device terminals no closer than 1.5mm into the solder bath at 260°C ± 10°C for 10 ± 1 sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications in 2.2.

### 5-5 Solderability

Subject the device terminals into the solder bath at 245°C ± 5°C for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in 2.2.

### 5-6 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 2.2.

### 5-7 Vibration

Subject the device to the vibration for 1 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The device shall fulfill the specifications in 2.2.

## 6. REMARK

### 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

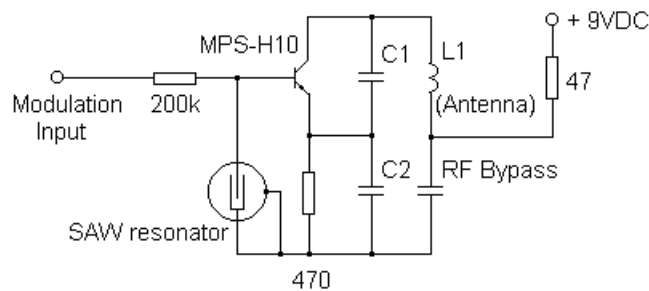
Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

### 6.3 Soldering

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

## 7. Typical Application Circuit

### Typical low-power Transmitter Application



### Typical Local Oscillator Application

