

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: _____ HDR372.5M S20
PREPARED 编制: _____ CHECKED 审核: _____
APPROVED 批准: _____ DATE 日期: _____ 2011-5-5

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

1. SCOPE

This specification is applied to a SAW resonator designed for the stabilization of transmitters such as garage door openers and security transmitters.

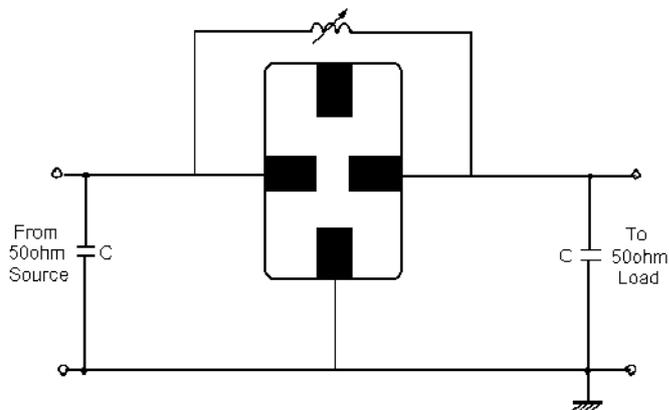
2. ELECTRICAL SPECIFICATION

DC Voltage VDC	30V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-40°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

Electronic Characteristics

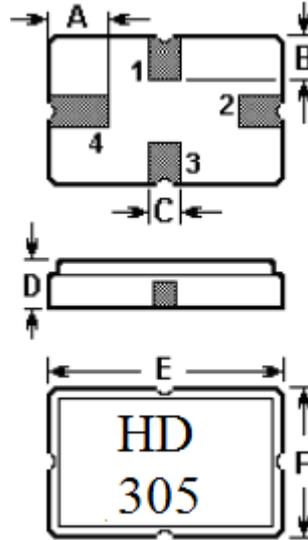
Item	Unites	Minimum	Typical	Maximum	
Center Frequency	MHz	372.425	372.500	372.575	
Insertion Loss	dB		1.7	2.5	
Quality Factor Unload Q			11000		
50 Ω Loaded Q			1376		
Temperature	Turnover Temperature	°C	10	25	40
Stability	Freq.temp.Coefficient	ppm/°C ²		0.032	
Frequency Aging		ppm/yr		<± 10	
DC. Insulation Resistance	MΩ	1.0			
RF Equivalent RLC Model	Motional Resistance R1	Ω		23	26
	Motional Inductance L1	μ H		99.97	
	Motional Capacitance C1	fF		1.826	
Transducer Static Capacitance	pF		1.7		

3. TEST CIRCUIT



4. DIMENSION

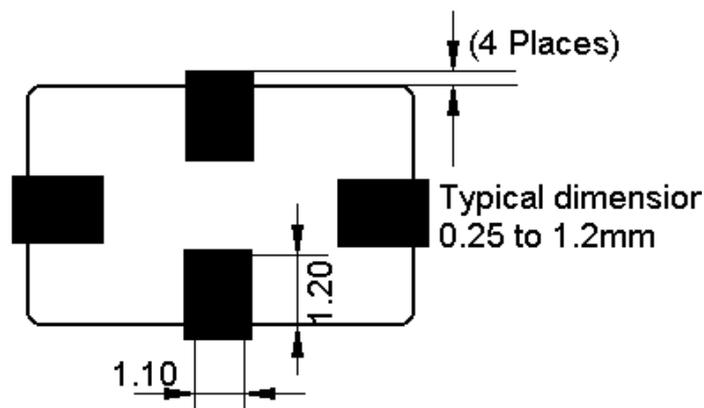
4-1 Typical dimension(unit: mm)



Pin	Configuration
1	Input / Output
3	Output / Input
2/4	Case Ground

Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.2±0.1	D	1.4±0.1
B	0.8±0.1	E	5.0±0.1
C	0.5	F	3.5±0.1

4-2 Typical circuit board land patter



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 table 1.

5-2 Low temperature exposure

Subject the device to -20°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 table 1.

5-3 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +80°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 table 1.

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 table 1.

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 table 1.

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 table 1.

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 table 1.

5-8 Lead fatigue

5-8-1 Pulling test

Weight along with the direction of lead without an shock 1kg. The device shall satisfy all the initial Characteristics.

5-8-2 Bending test

Lead shall be subject to withstand against 90° bending with 450g weight in the direction of thickness. This operation shall be done toward both directions. The device shall show no evidence of damage and shall satisfy all the initial electrical characteristics.

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

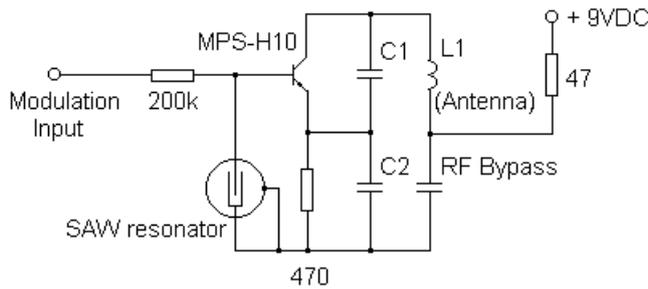
avoid ultrasonic cleaning

6.3 Soldering

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

7.TYPCIAL APPLICATION CIRCUITS

Typical low-power Transmitter Application



Typical Local Oscillator Application

