

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: _____ HDR418M SMD-20
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.

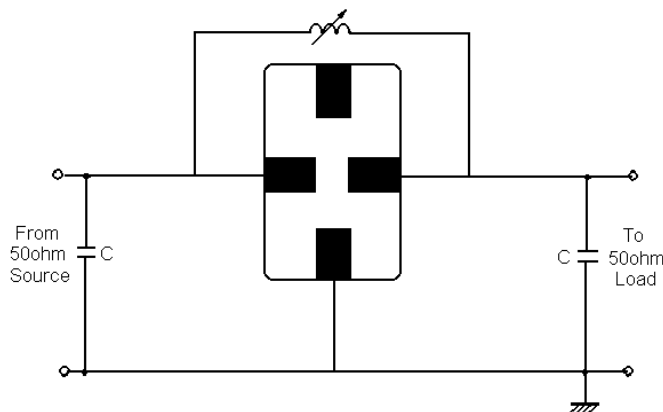
2. ELECTRICAL SPECIFICATION

DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-20°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

Electronic Characteristics

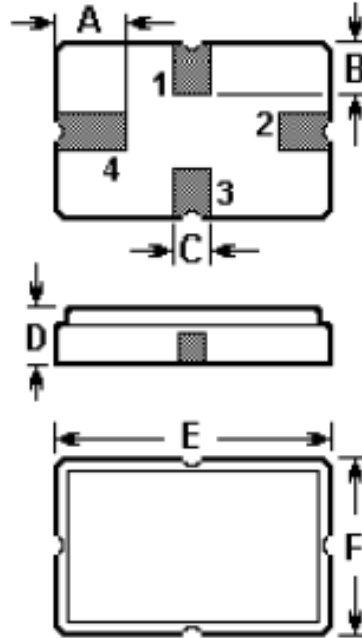
Item	Unites	Minimum	Typical	Maximum	
Center Frequency	MHz	417.925	418.000	418.075	
Insertion Loss	dB		1.5	2.5	
Quality Factor Unload Q		11000	12800		
50 Ω Loaded Q		1500	2000		
Temperature Stability	Turnover Temperature	°C	10	25	40
	Turnover Frequency	KHz		fo	
	Freq.temp.Coefficient	ppm/°C ²		0.032	
Frequency Aging		ppm/yr		<±10	
DC. Insulation Resistance	M Ω	1.0			
RF Equivalent RLC Model	Motional Resistance R1	Ω		14	26
	Motional Inductance L1	μ H		89.044	
	Motional Capacitance C1	fF		1.6281	
Pin 1 to Pin 2 Staic Capacitance	pF	1.7	2.0	2.3	
Transducer Static Capacitance	pF		2.0		

3. TEST CIRCUIT



4. DIMENSION

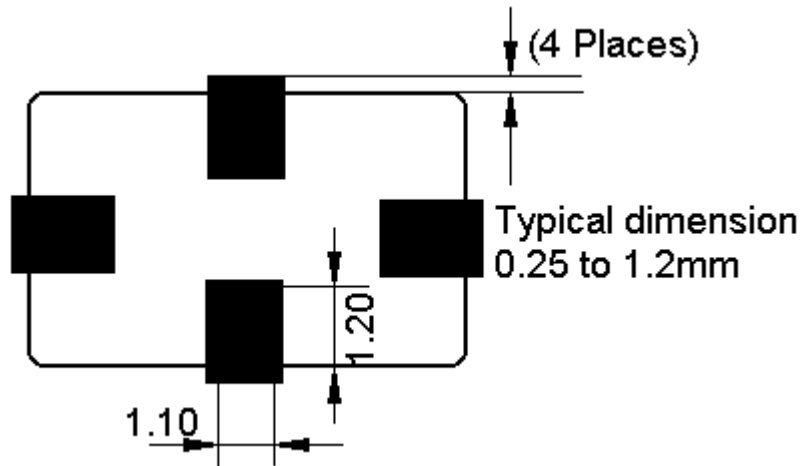
4-1 Typical dimension(unit: mm)



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

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

4-2 Typical circuit board land patter



5. ENVIRONMENTAL CHARACTERISTICS

5-1 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of $+25^{\circ}\text{C}$ for 5 Minutes and a higher temperature of $+85^{\circ}\text{C}$ for 30 Minutes. Then release the device into the room conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in table 1.

5-2 Resistance to solder heat

Submerge the device terminals into the solder bath at $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 ± 1 sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in table 1.

5-3 Solderability

Submerge the device terminals into the solder bath at $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in table 1.

5-4 Mechanical shock

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

5-5 Vibration

Subject the device to the vibration for 2 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 hz. The resonator shall fulfill the specifications in table 1.

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

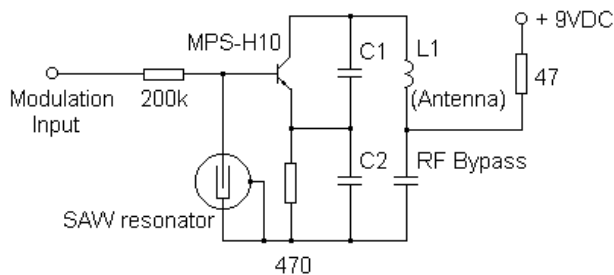
Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

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

