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：HDR360M S3

PREPARED 编 制： CHECKED 审 核：

APPROVED 批 准： D A T E 日 期：2012-7-26

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

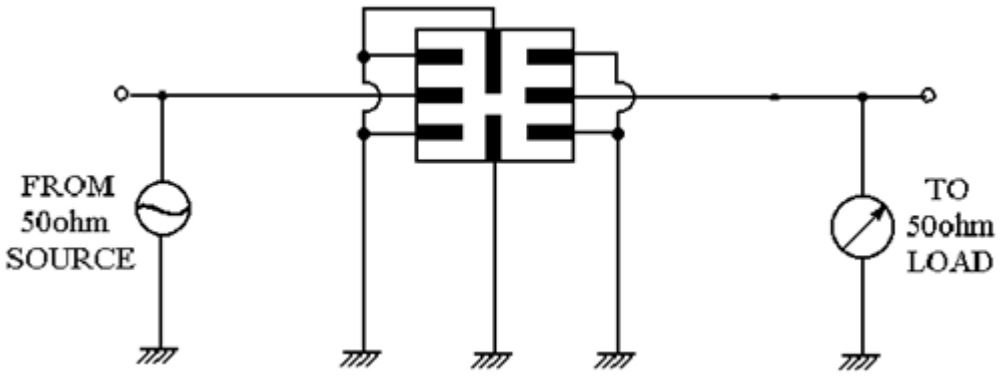
2. ELECTRICAL SPECIFICATION

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

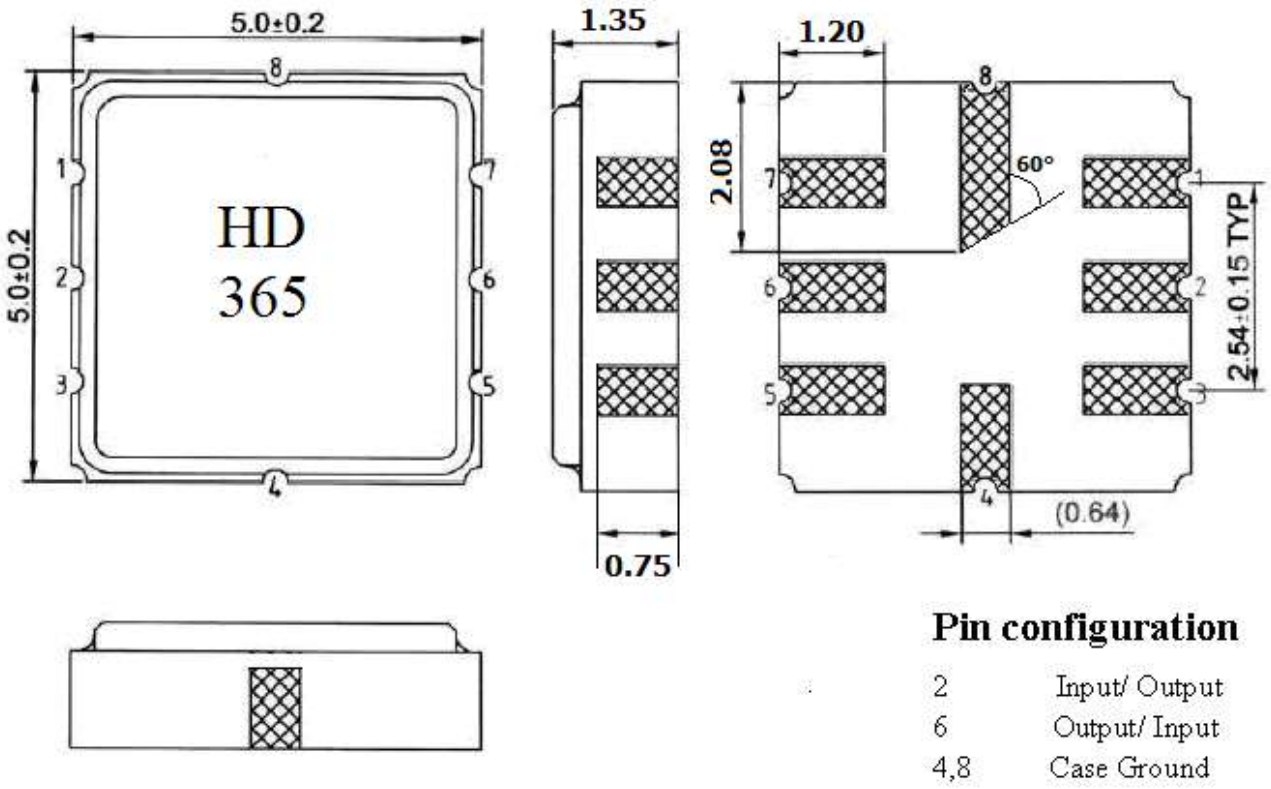
Electronic Characteristics

Item		Unites	Minimum	Typical	Maximum	Sym
Center Frequency		MHz	359.925	360.000	360.075	f_c
Insertion Loss (in 50ohm system)		dB		1.5	2.2	IL
Quality Factor	Unloaded Q		8000	13900		Q_U
	50Ω LoadedQ		1000	2000		Q_L
Temperature Stability	Turnover Temperature	℃	10	25	40	To
	Turnover Frequency	MHz		f_c		fo
	Frequency Temperature Coefficient	ppm/℃2		0.037		FTC
Frequency Aging Absolute Value during the First year		ppm/yr		≤10		$\lvert f_A \rvert$
DC Insulation Resistance between any two Pins		MΩ	1.0			
RF Equivalent RLC Model	Motional Resistance	Ω		19	26	Rm
	Motinal Inductance	□H		125.72		Lm
	Motinal Capacitance	fF		1.2914		Cm
	Pin 1to pin2 Static Capacitance	pF	1.5	2.0	2.5	Co
	Transducer Static Capacitance	pF		1.7		Cp

3. TEST CIRCUIT



4. DIMENSION



5. ENVIRONMENTAL CHARACTERISTICS

5-1 High temperature exposure

Subject the device to +85℃ 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℃ 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℃for 30 minutes. Following by a high temperature of +80℃ 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℃ ±10℃ 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℃±5℃ 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.

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

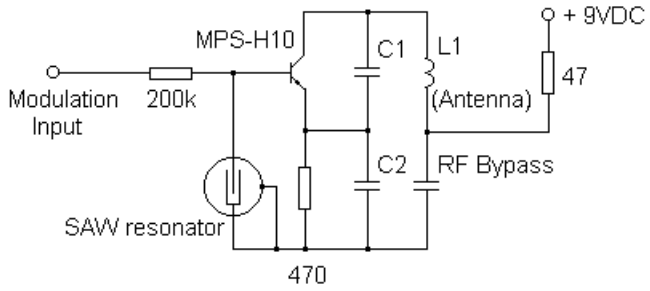
Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

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