

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: \_\_\_\_\_ HDR260M SMD-3  
PREPARED 编制: \_\_\_\_\_ CHECKED 审核: \_\_\_\_\_  
APPROVED 批准: \_\_\_\_\_ DATE 日期: \_\_\_\_\_ 2010-11-2

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 shall cover the characteristics of 1-port SAW resonator with 260M used for remote-control security.

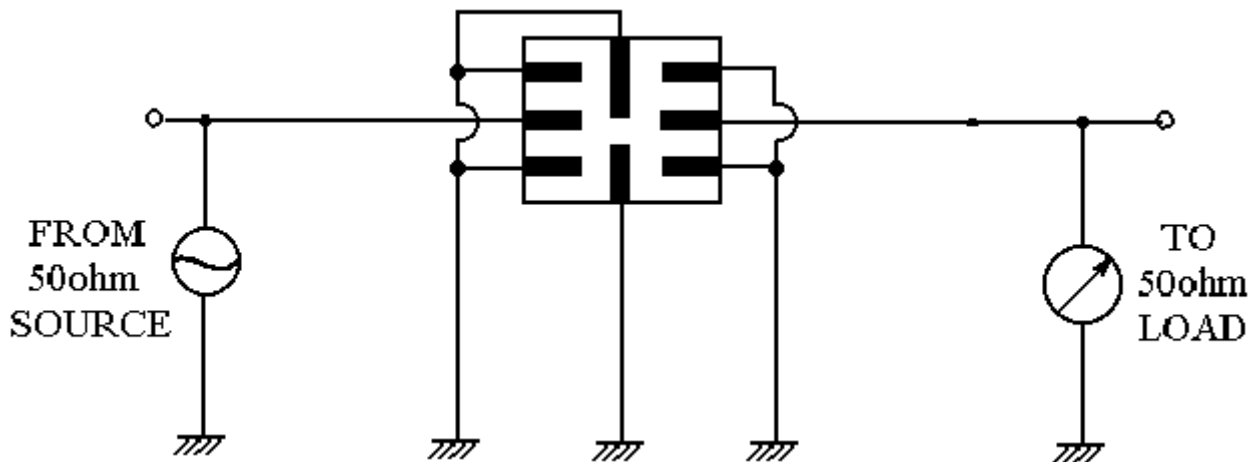
### 2. ELECTRICAL SPECIFICATION

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

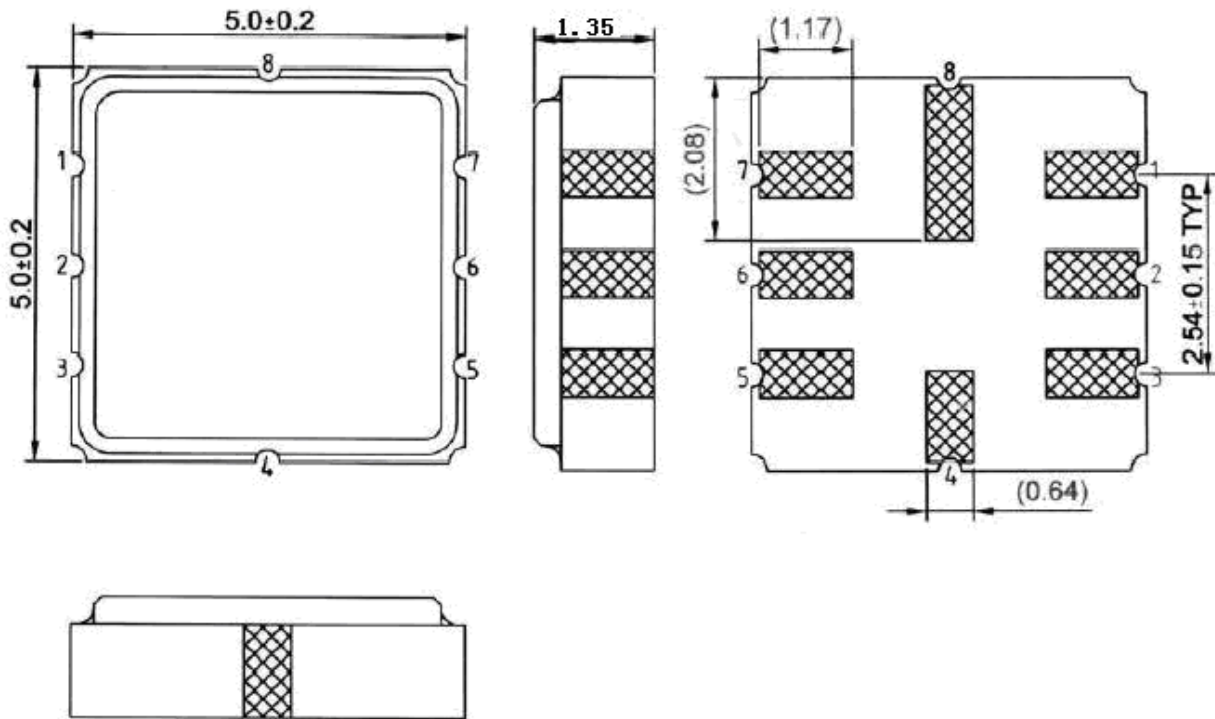
#### 2.2 Electronic Characteristics

Item		Unites	Minimum	Typical	Maximum
Center Frequency		MHz	259.900	260.000	260.100
Insertion Loss		dB		1.5	2.2
Quality Factor Unload Q			8000	12000	
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		16	26
	Motional Inductance L1	μ H		138.46	
	Motional Capacitance C1	fF		2.1292	
Transducer Static Capacitance		pF		2.6	

### 3. TEST CIRCUIT



**4. DIMENSION**



- 2.Input
- 6.Output
- 1.3.5.7.Gound
- 4.8 Ground

**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. Packing

### 7.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

(3) The product shall be packed properly not to be damaged during transportation and storage.

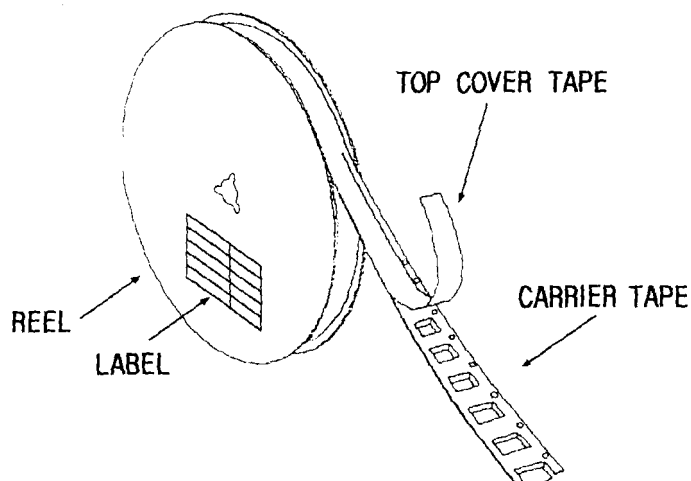
### 7.2 Reeling Quantity

1000 pcs/reel 7"

3000 pcs/reel 13"

### 7.3 Taping Structure

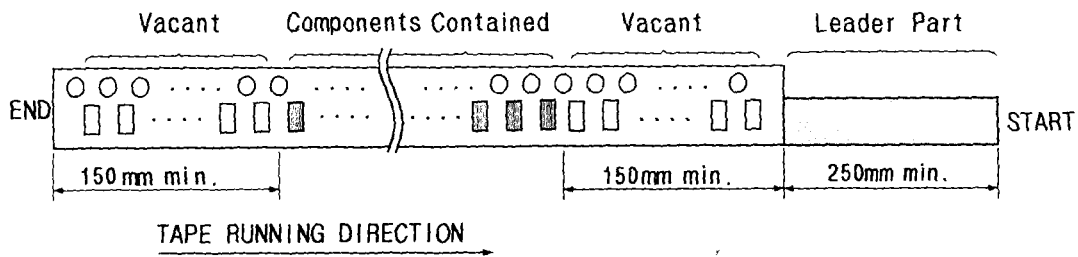
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.

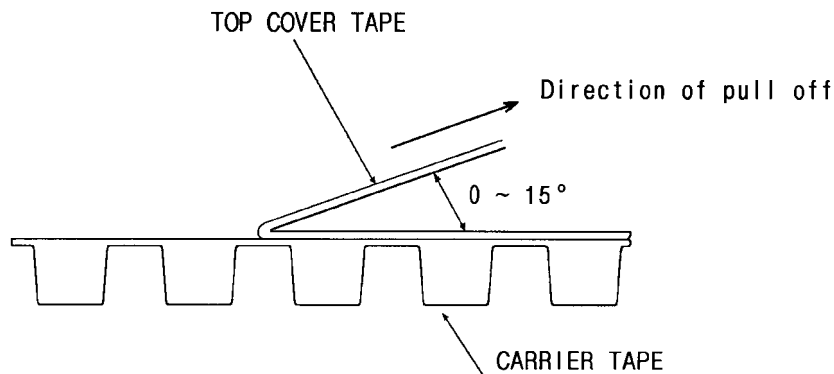


## 8. TAPE SPECIFICATIONS

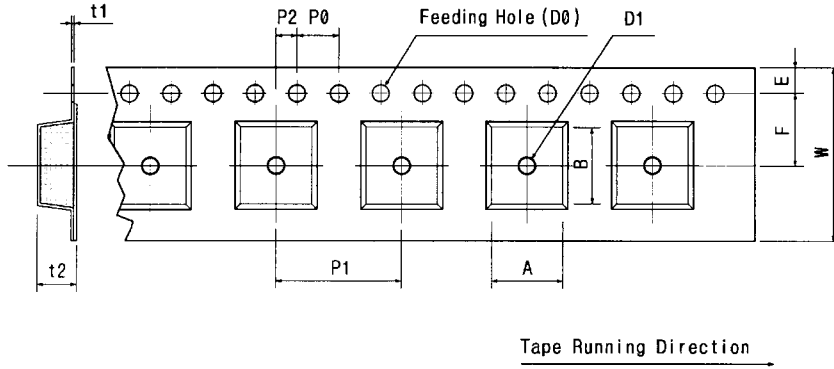
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

8.2 Top Cover Tape Adhesion (See the below figure)

- (1) pull off angle: 0~15°
- (2) speed: 300mm/min.
- (3) force: 20~70g



[Figure 1] Carrier Tape Dimensions

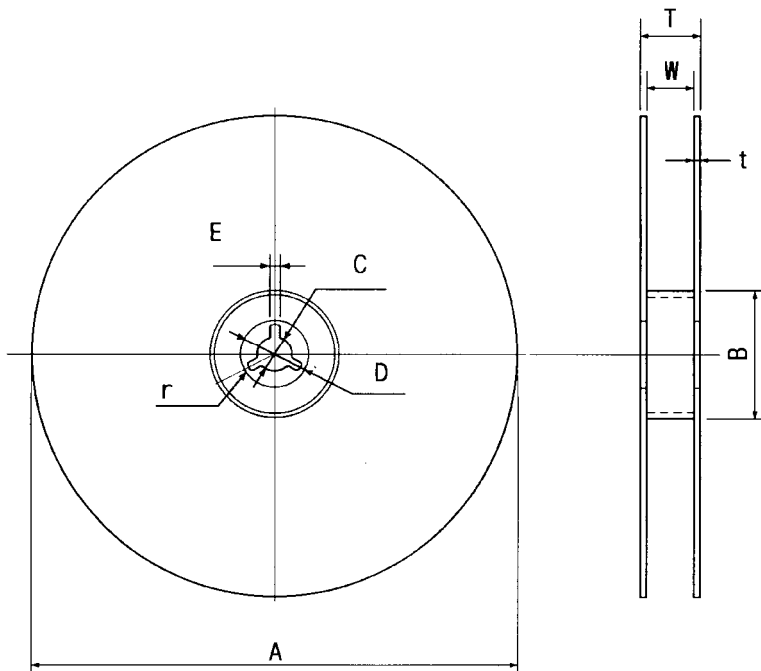


[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	8.0	2.0	Ø1.5	Ø1.0	0.3	2.10	6.40	5.20
±0.3	±0.05	±0.1	±0.1	±0.1	±0.05	±0.1	±0.25	±0.05	±0.1	±0.1	±0.1

[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330	Ø100	Ø13	Ø21	2	13	3	1.0
±1.0	±0.5	±0.5	±0.8	±0.5	±0.3	max.	max.