

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: _____ HDR303M-F11 _____
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 |
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1. SCOPE

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

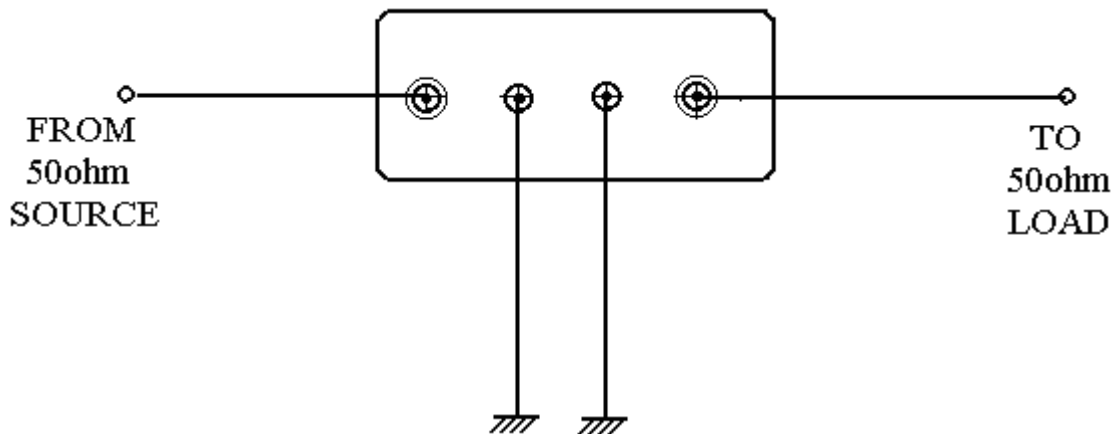
2. ELECTRICAL SPECIFICATION

| | |
|-----------------------|----------------|
| 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 |

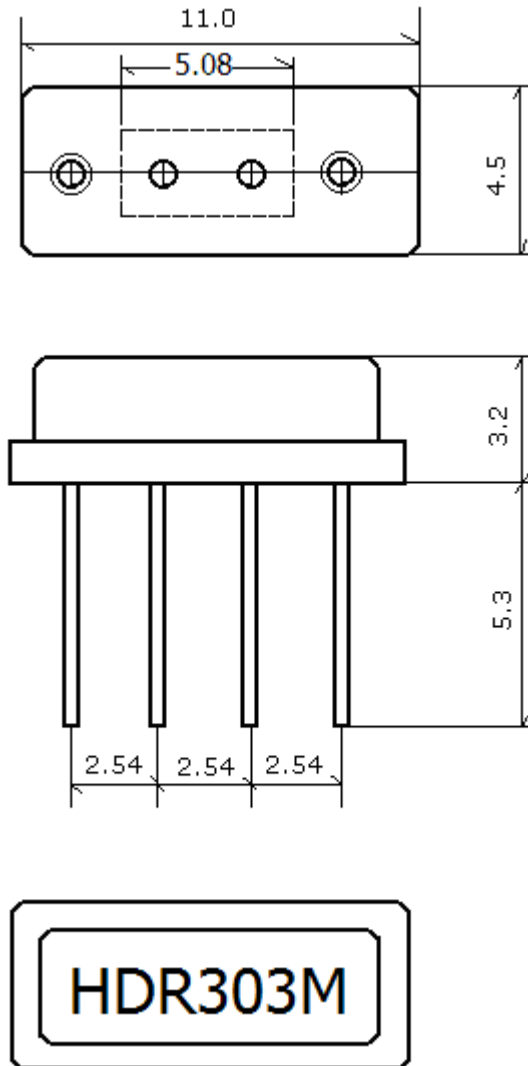
Electronic Characteristics

| Item | Unites | Minimum | Typical | Maximum |
|-------------------------------|-------------------------|---------------------|---------|---------|
| Center Frequency | MHz | 303.750 | 303.825 | 303.900 |
| Insertion Loss | dB | | 1.7 | 2.5 |
| Quality Factor Unload Q | | 8000 | 12000 | |
| 50Ω Loaded Q | | 1000 | 1500 | |
| Temperature Stability | Turnover Temperature | °C | 10 | 25 |
| | 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 | 21 | 26 |
| | Motional Inductance L1 | μ H | | 171.87 |
| | Motional Capacitance C1 | fF | | 1.5967 |
| 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 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 $260^{\circ}\text{C} \pm 10^{\circ}\text{C}$ 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 $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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°C bending with 450g weight in the direction of thickness. This operation shall be done toward both direction. 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.