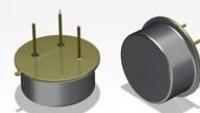


To39 Series

CHTo39-R350M75K-NB

Pb Free RoHS Compliant
2002/95/EC



※ Application & Features

- RF, Wireless
- Automotive Equipment at Other
- 9.5×9.5×3.5mm Metal Package
- This specification shall cover the characteristics of 1-port SAW resonator with 350.000M used for remote-control security.

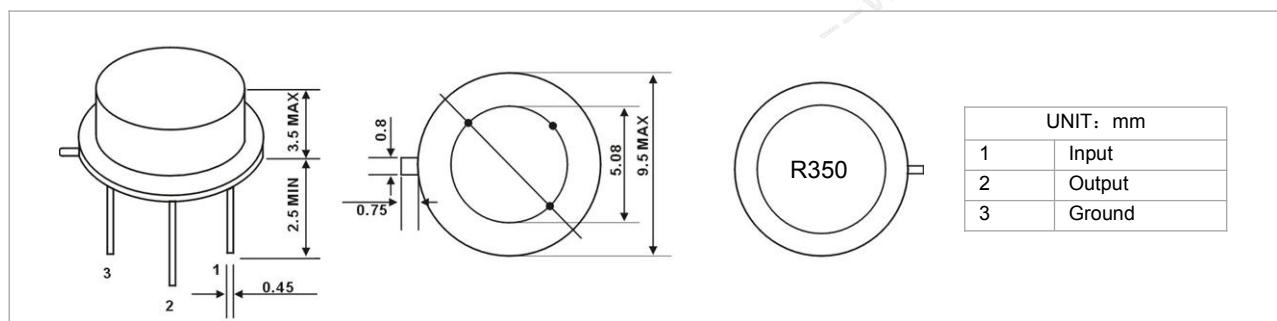
※ Maximum Rating

Rating	Value	Unit
CW RF power dissipation	P	dBm
DC voltage between any terminals	V_{DC}	V
Operating temperature range	T_A	°C
Storage temperature range	T_{stg}	°C

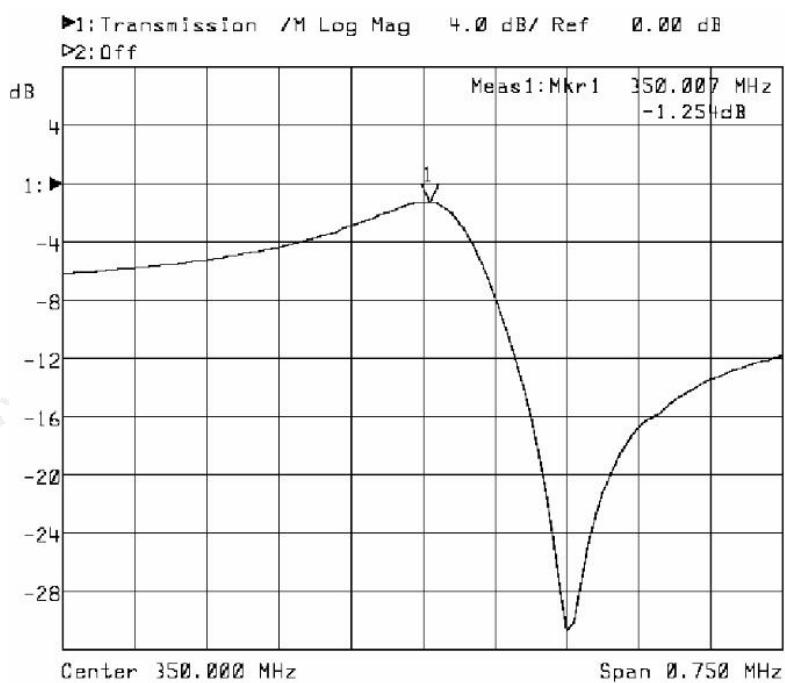
※ Electronic Characteristics

Characteristic	Sym	Minimum	Typical	Maximum	Unit
Center Frequency (+25°C)	f_C	349.925	350.000	350.075	MHz
	Δf_C		±75		kHz
Insertion Loss	IL		1.3	2.5	dB
Quality Factor	Q_U	8.000	12325		
	Q_L	1000	1.700		
Temperature Stability	T_0	25	40	55	°C
	f_0		$f_0 \pm 2.7$		kHz
Frequency Temperature Coefficient	FTC		0.032		ppm/°C ²
Frequency Aging	Absolute Value during the First Year	$ f_A $	≤ 10		ppm/yr
DC Insulation Resistance Between Any Two Terminals		1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R_M	16	26	Ω
	Motional Inductance	L_M	89.672		μH
	Motional Capacitance	C_M	2.3059		pF
	Shunt Static Capacitance	C_0	2.3	2.6	pF

※ Mechanical Dimensions and Marking

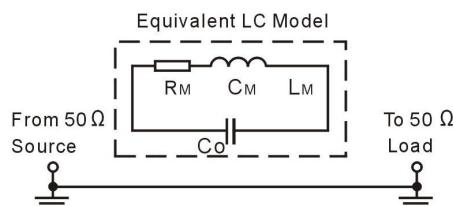


※ Typical Frequency Response



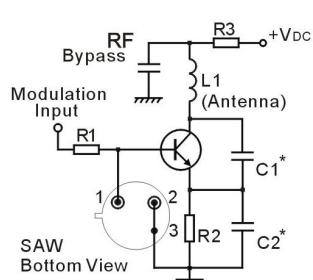
※ Equivalent LC Model

※ Test Circuit

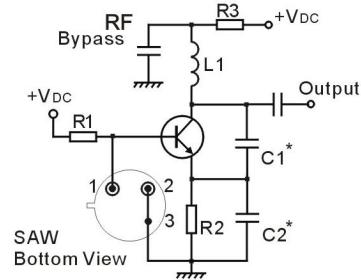


※ Typical Application Circuits

1) Low-Power Transmitter Application



2) Local Oscillator Application



※ Environment Characteristic

1 Thermal Shock:

The components shall remain within the electrical specifications after being kept at the condition of heat cycle conditions: TA=-40°C±3°C, TB=85°C±2°C, t1=t2=30min, switch time≤3min& cycle time : 100 times, recovery time: 2h±0.5h.

2 Resistance to solder heat

Submerge the device terminals into the solder bath at 260°C ±5°C for 10±1 sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in 2.2.

3 Solder ability

Submerge the device terminals into the solder bath at 245°C ±5°C for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 2.2

4 The Temperature Storage:

4.1 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the 85°C±2°C for 500h, recovery time : 2h±0.5h.

4.2 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the -40°C±3°C for 500h, recovery time : 2h±0.5h.

5 Humidity test:

The components shall remain within the electrical specifications after being kept at the condition of ambient temperature 60°C±2°C, and 90~96% RH for 500h.

6 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m for 3 times. The resonator shall fulfill the specifications in 2.2.

7 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 2.2.

※ Remark

1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

2 Ultrasonic cleaning

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

3 Soldering

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