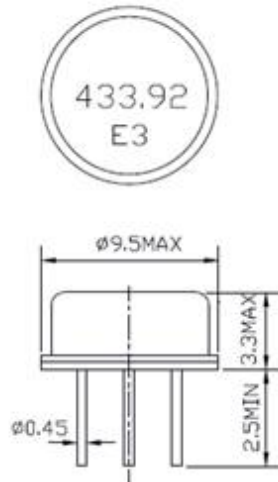


IS SR TO39

1. Package Dimension

Unit: mm



Package Material	
CAP	Cu plating Ni
BASE	Cu plating Ni

Pin No.	Function
1.	Input
2.	Output
3.	Ground

2. Marking

433.92	(1) Frequency
E3	(2) Date code A: Month code (see below table) 2: Last figure of year

Month	1	2	3	4	5	6	7	8	9	10	11	12
Month code	A	B	C	D	E	F	G	H	I	J	K	L

3. Performance

3.1 Application

One-port SAW Resonator for Wireless Remote Controller.
Center frequency: 433.92MHz

3.2 Maximum Rating

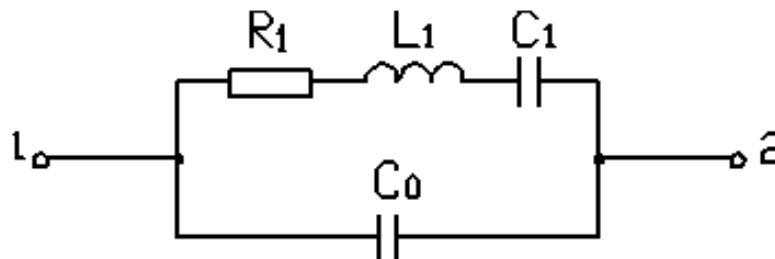
Rating		Value	Unit
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-45 ~ +85	°C
DC Voltage (between any Terminals)	V_{DC}	10	V
RF Power (in BW)	P	0	dBm
ESD Voltage (HB)	V_{ESD}	150	V

Electrostatic Sensitive Device (ESD)

3.3 Electronic Characteristics

Item	Unit	Minimum	Typical	Maximum
Center Frequency (f_0)	MHz	433.845	433.920	433.995
Insertion Loss	dB	—	1.5	2.5
Quality Factor	—	—	—	—
Unloaded Q	—	—	12,800	—
50Ω Loaded Q	—	—	2,000	—
Temperature Stability	—	—	—	—
Turnover Temperature	□	20	35	50
Turnover Frequency	KHz	—	$f_0 \pm 1.3$	—
Frequency Temperature Coefficient	ppm/□2	—	0.032	—
Frequency Aging	ppm/yr	—	<±10	—
DC Insulation Resistance	MΩ	1.0	—	—
RF Equivalent RLC Model	—	—	—	—
Motional Resistance R_1	Ω	—	18	26
Motional Inductance L_1	μH	—	86	—
Motional Capacitance C_1	fF	—	1.5	—
Pin1 to Pin2 Static Capacitance C_0	pF	1.7	2.0	2.3
Transducer Static Capacitance C_0	pF	—	1.9	—

3.3 Equivalent LC Model



4. Performance

4.1 Mechanical Shock:

The components shall remain within the electrical specifications after 1000 shocks, acceleration 392 m/s², duration 6 milliseconds.

4.2 Vibration Fatigue:

The components shall remain within the electrical specifications after loaded vibration at 20 Hz, amplitude 1.5 mm, for 2 hours.

4.3 Terminal Strength:

The components shall remain within the electrical specifications after pulled 2 kgs weight for 10 seconds towards an axis of each terminal.

4.4 High Temperature Storage:

The components shall remain within the electrical specifications after being kept at the 85°C ± 2°C for 16 hours, then kept at room temperature for 2 hours.

4.5 Low Temperature Storage:

The components shall remain within the electrical specifications after being kept at the -20°C ± 2°C for 16 hours, then kept at room temperature for 2 hours.

4.6 Temperature Cycle:

The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing (one cycle: 80°C for 30 minutes → 25°C for 5 minutes → -40°C for 30 minutes) then kept at room temperature for 2 hours.

4.7 Humidity Test:

The components shall remain within the electrical specifications after being kept at the condition of ambient temperature 40 ± 2°C, and 90~95% RH for 48 hours, then kept at room temperature and normal humidity for 2 hours.

4.8 Solder-heat Resistance:

The components shall remain within the electrical specifications after dipped in the solder at 260°C for 10 ± 1 seconds, then kept at room temperature for 2 hours. (Terminal must be dipped leaving 1.5 mm from the case).

4.9 Solderability:

Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at 245°C ± 5°C for 5 ± 1 seconds.

5. Remarks

5.1 Static voltage:

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

5.2 Ultrasonic cleaning:

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

5.3 Soldering:

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

