

DESCRIPTION

The 1-port SAW Resonator is designed to be the frequency control element in transmitters and receiver local oscillators, allowing reduced receiver bandwidths, which results in improved sensitivity and immunity to interference.

The SAW Resonators are typically required in applications such as wireless point of sale terminals, computer peripherals and personal and home security.

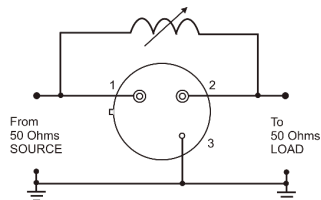
ELECTRICAL SPECIFICATION

Center Frequency (Fc)	See Table 1
Frequency Tolerance (at 25 °C)	See Table 1
Operating Temperature Range	-20 °C to +85 °C
Storage Temperature Range	-45 °C to +85 °C
DC Voltage V _{DC}	10V
AC Voltage V _{PP}	10V 50Hz/60Hz
RF Power Dissipation	0dBm
Insertion Loss	See table 1
Quality Factor Unload Q	12.800 typical
50 Ohms Load Q	2.000 typical
Turnover Temperature (To)	50 °C Maximum
Turnover Frequency (fo)	fo±1.3 typical
Freq. Temp. Coefficient (FTC)	0.032ppm/ °C ²
Frequency Aging (at 25 °C)	±10ppm/year
DC Insulation Resistance between any two pins	1.0MOhms minimum
Motional Resistance (R _M)	26 Ohms Maximum
Motional Inductance (L _M)	86µH typical
Motional Capacitance (R _M)	1.5pF typical
Pin 1 to Pin 2 Static Capacitance (Co)	2.3pF Maximum
Transducer Static Capacitance (Cp)	1.9pF typical

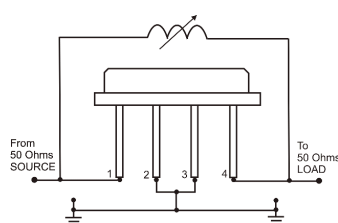
Remark

- Static Voltage:** Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.
- Ultrasonic cleaning:** Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.
- Soldering:** Only leads of component may be soldered. Please avoid soldering another part of component.

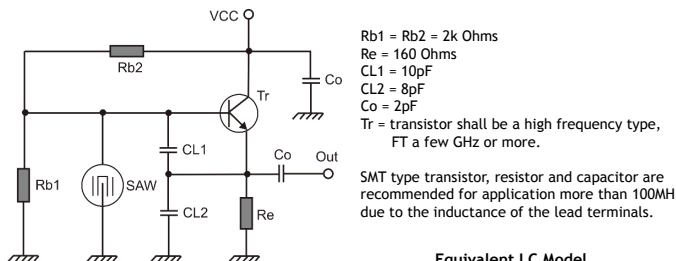
Electrical Test TO39



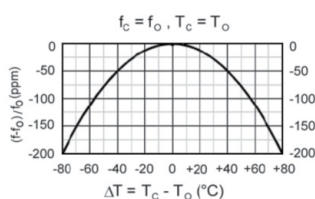
Electrical Test F11, F12



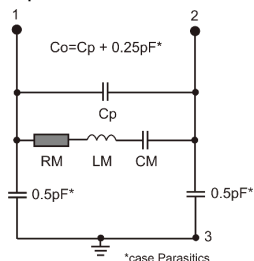
Typical Local Oscillator Application



Temperature Characteristics

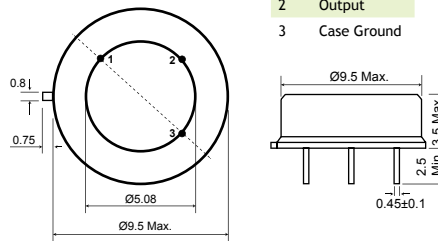


Equivalent LC Model

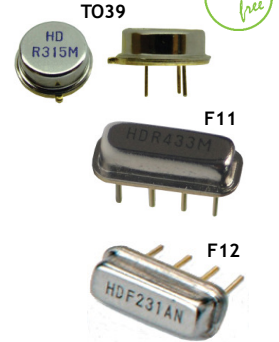


MECHANICAL DIMENSIONS (all in mm)

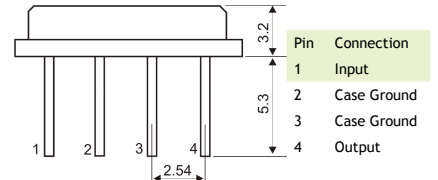
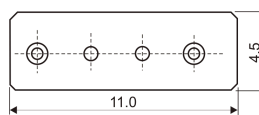
TO39



Pin	Connection
1	Input
2	Output
3	Case Ground

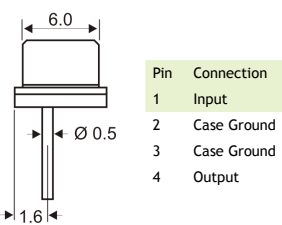
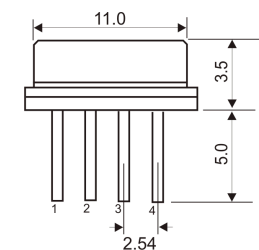


F11



Pin	Connection
1	Input
2	Case Ground
3	Case Ground
4	Output

F12



Pin	Connection
1	Input
2	Case Ground
3	Case Ground
4	Output

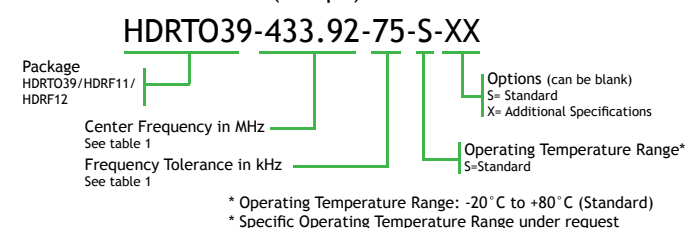
Table 1

Center Frequency (MHz)	Frequency Tolerance (KHz)	Insertion Loss (dB)	Package
115.0	± 100	2.5	F12
119.2	± 100	2.5	F12
224.500	± 100	2.5	TO39,F11
260.000	± 100	2.5	TO39,F11
293.975	± 100	2.5	TO39,F11
297.800	± 100	2.5	TO39,F11
303.875	± 100	2.5	TO39,F11
303.825	± 100	2.5	TO39,F11
304.300	± 100	2.5	TO39,F11
305.000	± 75	2.5	TO39,F11
307.500	± 75	2.5	TO39,F11
308.500	± 75	2.5	TO39,F11
310.000	± 75	2.5	TO39,F11
414.500	± 75	2.5	TO39,F11
315.000	± 75	2.5	TO39,F11
316.800	± 75	2.5	TO39,F11
318.000	± 75	2.5	TO39,F11
320.000	± 75	2.5	TO39,F11
325.000	± 75	2.5	TO39,F11
330.000	± 75	2.5	TO39,F11
335.100	± 75	2.5	TO39,F11
340.000	± 75	2.5	TO39,F11
345.000	± 75	2.5	TO39,F11
360.000	± 75	2.5	TO39,F11
372.500	± 75	2.5	TO39,F11

Table 1 (cont.)

Center Frequency (MHz)	Frequency Tolerance (KHz)	Insertion Loss (dB)	Package
382.840	± 75	2.5	TO39,F11
383.160	± 75	2.5	TO39,F11
390.000	± 75	2.5	TO39,F11
395.000	± 75	2.5	TO39,F11
403.550	± 75	2.5	TO39,F11
407.300	± 75	2.5	TO39,F11
418.000	± 75	2.5	TO39,F11
422.000	± 75	2.5	TO39,F11
423.220	± 75	2.5	TO39,F11
426.062	± 75	2.5	TO39,F11
433.420	± 75	2.5	TO39,F11
433.920	± 75	2.5	TO39,F11
310.000	± 75	2.5	TO39,F11
435.700	± 75	2.5	TO39,F11
315.000	± 75	2.5	TO39,F11
447.625	± 100	2.5	TO39,F11
456.800	± 100	2.5	TO39,F11
457.500	± 100	2.5	TO39,F11
462.500	± 150	2.5	TO39,F11
479.500	± 150	2.5	TO39,F11
857.650	± 250	2.5	TO39,F11
868.000	± 250	2.5	TO39,F11
868.350	± 250	2.5	TO39,F11
868.950	± 250	2.5	TO39,F11
915.000	± 250	2.5	TO39,F11

PART NUMBERING SYSTEM (Example)



REL M - SHOULDER Brasil