

**P/N:WTLTO39433**  
**TO39 433.92MHz**



<b>Customer</b>	WTL
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# **SPECIFICATION**

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# P/N:WTLTO39433

## TO39 433.92MHz



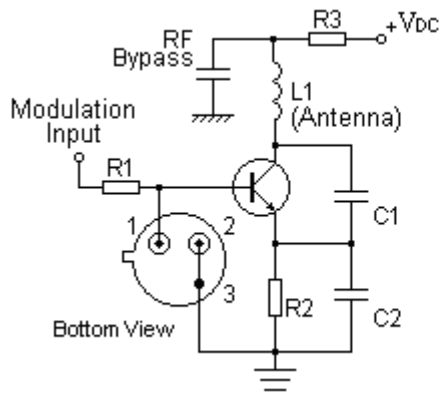
### Features

- 1-port Resonator
- Metal Case for TO-39
- RoHS compatible
- Package Code TO-39
- Electrostatic Sensitive Device(ESD)

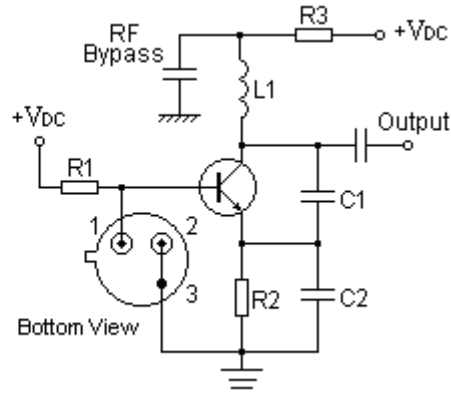


### Application

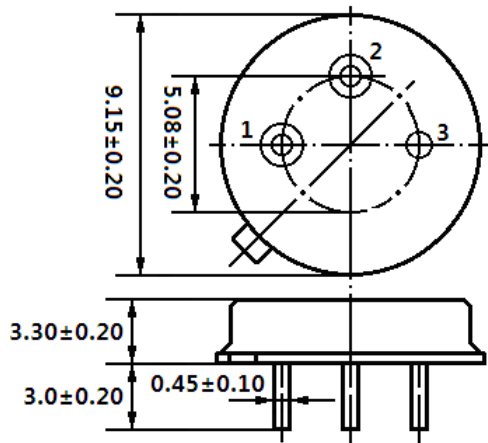
Typical Low-Power Transmitter Application



Typical Local Oscillator Application



### Package Dimensions (TO-39)

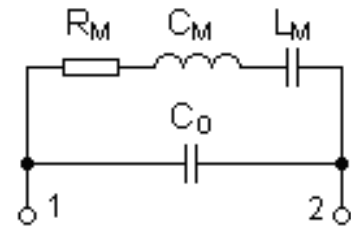
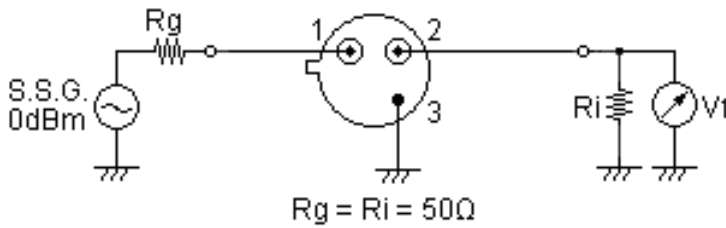


### Pin Configuration

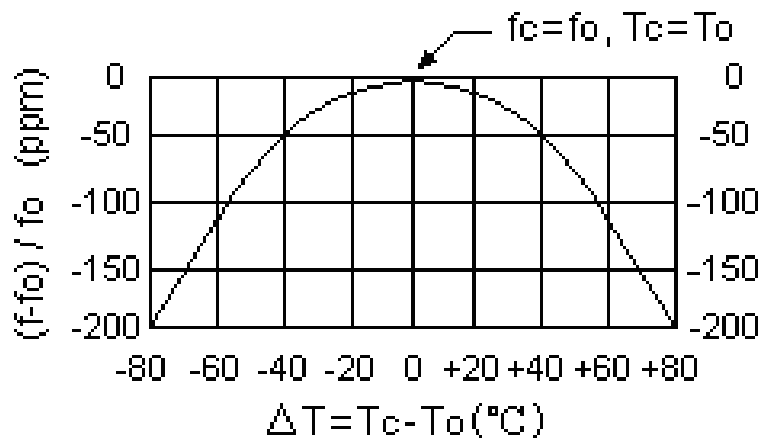
1	Input/ Output
2	Output/ Input
3	Ground

**Test Circuit**

**Equivalent LC Model**



**Temperature Characteristics**



The curve shown above accounts for resonator contribution only and does not include LC component temperature contributions.

**Performance**

**Maximum Rating**

Item		Value	Unit
DC Voltage	V <sub>DC</sub>	±30	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	°C
RF Power Dissipation	P	10	dBm

**Electronic Characteristics**

Test Temperature: 25°C ± 2°C

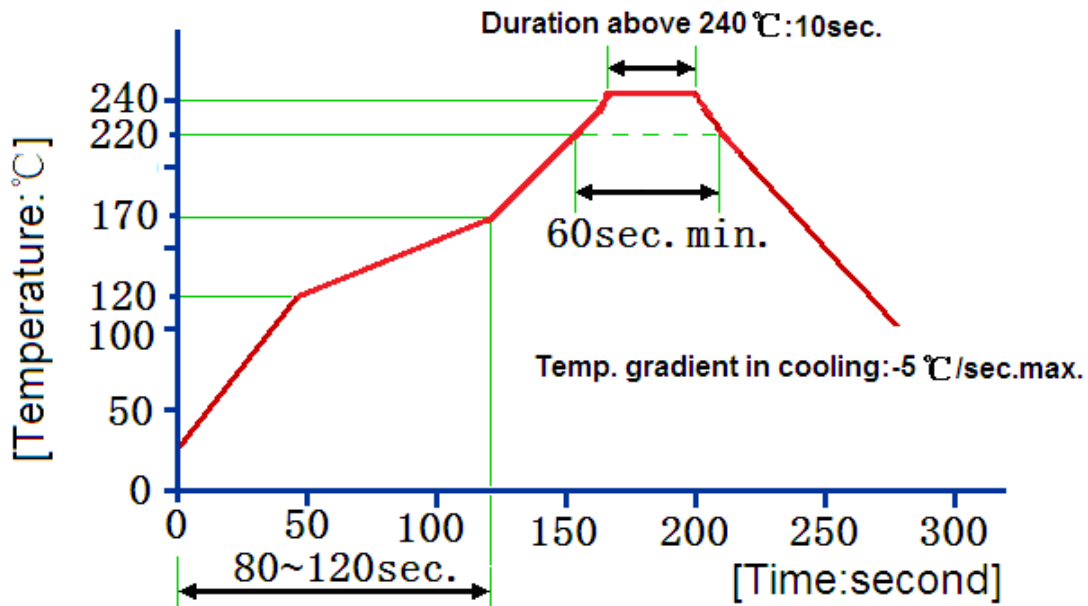
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

Item			Minimum	Typical	Maximum	Unit
Center Frequency	Absolute Frequency	f <sub>c</sub>		433.92		MHz
	Tolerance from 433.92MHz	Δf <sub>c</sub>		±75		KHz
Insertion Loss(min)		IL		1.9	2.2	dB
Quality Factor	Unloaded Q	Q <sub>U</sub>		13173		
	50Ω Loaded Q	Q <sub>L</sub>		2167		
Temperature Stability	Turnover Temperature	T <sub>0</sub>	25	40	55	°C
	Frequency Temperature Coefficient	FTC		0.032		ppm/°C
Frequency Aging	Absolute Value during the First Year	f <sub>A</sub>		≤10		ppm/yr
DC Insulation Resistance between Any Two Pins			1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R <sub>M</sub>		20	29	Ω
	Motional Inductance	L <sub>M</sub>		95.2		μH
	Motional Capacitance	C <sub>M</sub>		1.42		fF
	Static Capacitance	C <sub>0</sub>	1.75	2.05	2.35	pF



**Recommended Reflow Soldering Diagram**



**Reflow cycles: 3 cycles max.**

**Notes**

1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to ESD protect in the test.
2. Static voltage between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
3. Ultrasonic cleaning may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
4. Only leads of component may be soldered. Please avoid soldering another part of component.
5. There is a close relationship between the device's performance and matching network. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.