

**P/N: WTL6A20778**

# Saw Resonator

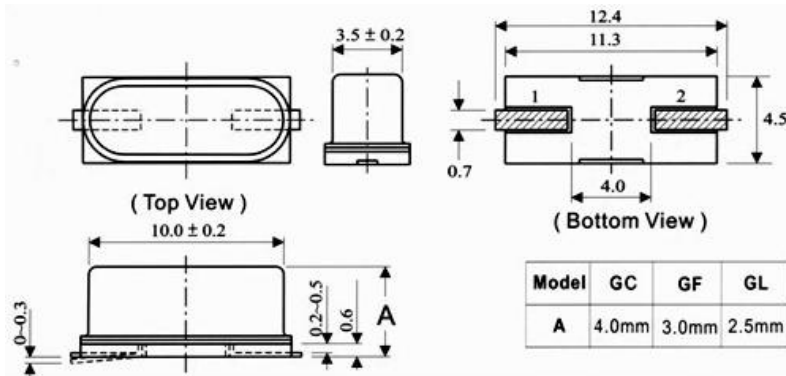


## Features

- 1-port Resonator
- Metal Case for HC-49S-SMD
- **RoHS** compatible
- Package size 10.24x3.70x4.0mm<sup>3</sup>
- **Electrostatic Sensitive Device(ESD)**



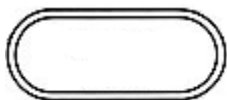
## Package Dimensions (HC-49S-SMD)



## Pin Configuration

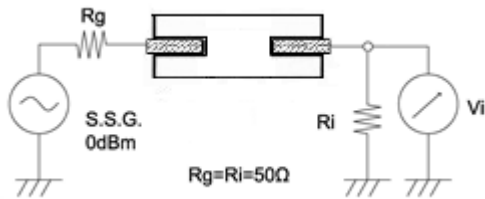
<b>1</b>	Input/Output
<b>2</b>	Output/Input

## Marking

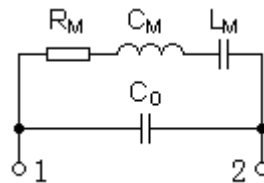


<b>WTL</b>	Trademark
<b>R</b>	SAW Resonator
<b>433</b>	Part number

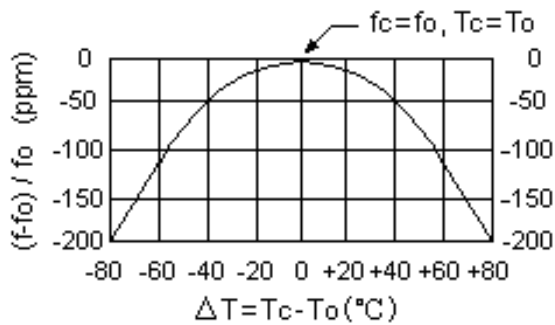
**Test Circuit**



**Equivalent LC Model**

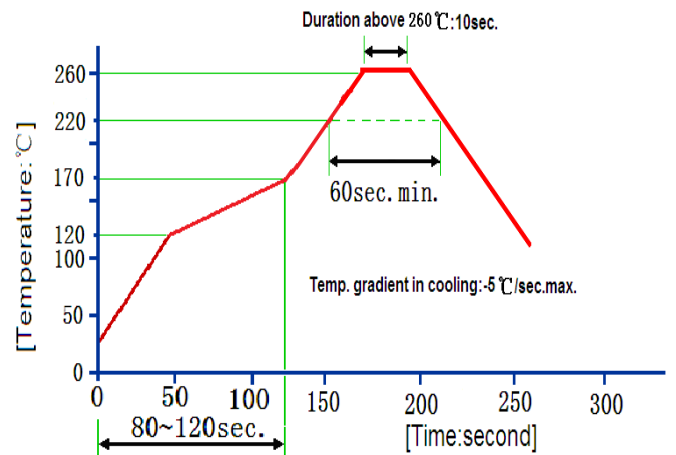


**Temperature Characteristics Diagram**



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

**Recommended Reflow Soldering**

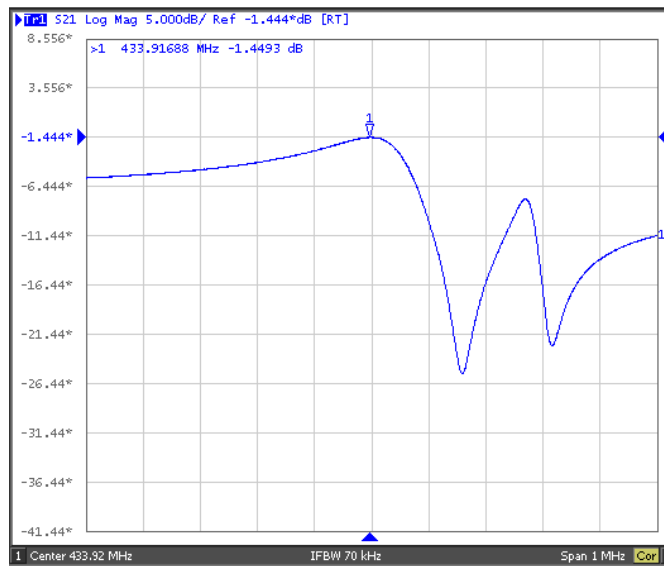


Reflow cycles:3 cycles max.

**Frequency Response**

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### Performance

#### Maximum Rating

Item		Value	Unit
DC Voltage	$V_{DC}$	10	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-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	$f_c$		433.920		MHz
	Tolerance from 433.920MHz	$\Delta f_c$		±75		KHz
Insertion Loss(min)		IL		1.8	2.4	dB
Quality Factor	Unloaded Q	$Q_U$		18362		
	50Ω Loaded Q	$Q_L$		2150		
Temperature	Turnover Temperature	$T_0$	25	40	55	°C



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		Recovery time : $2 \pm 0.5h$
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**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.