

FEATURES

- The SR304.3-T is a true one-port, Surface-acoustic-wave(SAW) resonator in a low-profile, TO-39 case. It provides reliable, fundamental-mode, quartz frequency stabilization of fixed-frequency transmitters operating at 304.30MHz.

APPLICATIONS

- Communication

SPECIFICATION *

Parameters		Product	Option Code
		SR	SR
Centre Frequency(f_c) :		▲	304.300
Frequency Tolerance(Δf_c):	$\pm 75\text{KHz}$	△	A
	$\pm 100\text{KHz}$	△	B
	$\pm 150\text{KHz}$	△	C
	$\pm 200\text{KHz}$	△	D
Temp. Stability	Turnover Temp(T_o): 55°C Max.	▲	
	Turnover Frequency(f_o): f_c 304.3 MHz	▲	
	Frequency Temp. Coefficient (FTC): $0.037\text{ppm}/^\circ\text{C}^2$	▲	
Insertion Loss(IL): 2.0 dB Max.		▲	
Operating Temp. Range: $-10^\circ\text{C} \sim +60^\circ\text{C}$		▲	
Storage Temp. Range: $-40^\circ\text{C} \sim +85^\circ\text{C}$		▲	
Quality Factor	Unloaded Q(Q_u): 15,333	▲	
	50 Ω Loaded Q(Q_L): 2,000	▲	
DC Insulation Resistance between Any Two Pins: 1.0M Ω Min.		▲	
Frequency Aging Absolute Value During the First Year(f_A): $\leq 10\text{ppm/year}$		▲	
RF Equivalent RLC Model	Motional Resistance(R_m): 21 Ω Max.	▲	
	Motional Inductance(L_m): 120.356 μH	▲	
	Motional Capacitance(C_m): 2.2752 fF	▲	
	Shunt Static Capacitance (C_o): 2.0 pF	▲	
CW Therefore Power Dissipation: +10dBm		▲	
DC Voltage Between Any Two Pins: $\pm 30\text{V}$ DC		▲	
Case Temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$		▲	
Holder Type: TO-39		△	T
Package: Tube		△	U

▲ Standard * Specifications Subject to Change Without Notice
 △ Optional: please specify required code when inquiring or ordering

NOTE

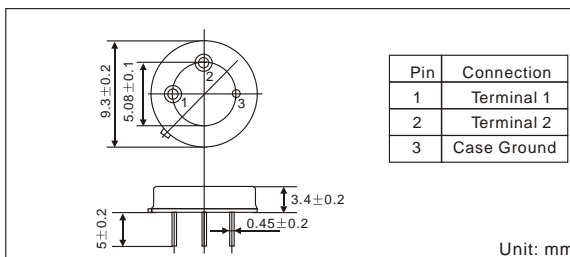
1. Electrostatic Sensitive Device. Observe precautions for handling
2. Freq. Aging is the change in f_c with time and is specified at $+65^\circ\text{C}$ or less. Aging may exceed the specification for prolonged temp. Above $+65^\circ\text{C}$. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
3. The centre freq. f_c is the freq. Of minimum IL with the resonator in the specified test fixture in a 50 Ω test system with $\text{VSWR} \leq 1.2:1$. Typically, $f_{\text{oscillator}}$ or $f_{\text{transmitter}}$ is less than the resonator f_c .
4. Typically, equipment utilizing this device requires emissions testing and government approval. Which is the responsibility of the equipment manufacturer
5. Unless noted otherwise, case temperature $T_c = +25^\circ\text{C} \pm 2^\circ\text{C}$.
6. The design, manufacturing process, and specifications of this device are subject to change without notice.
7. Derived mathematically from one or more of the following directly measured parameters: f_c , IL, 3 dB bandwidth, f_c versus T_c , and C_o
8. Turnover temperature, T_o , is the temperature of maximum (or turnover) freq., f_o . The nominal center freq. at any case temp., T_c , may be calculated from: $f = f_o [1 - \text{FTC} (T_o - T_c)^2]$. Typically, oscillator T_o is approx. equal to the specified resonator T_o .

PART NUMBER GUIDE

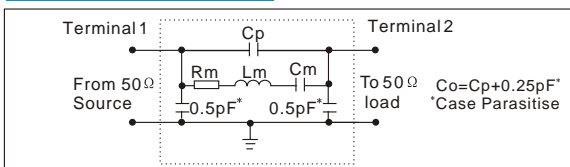
TGS	SR	304.30	A	T	U
Mark	SAW Resonators One-Port	Centre Freq.	Frequency Tolerance	Holder Type	Package

e.g. TGS SR 304.3 A T U

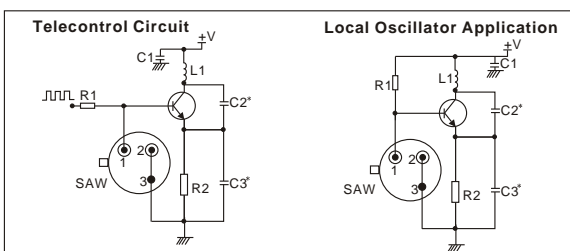
DIMENSIONS



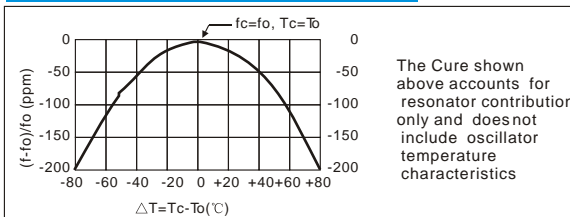
EQUIVALENT LC MODE



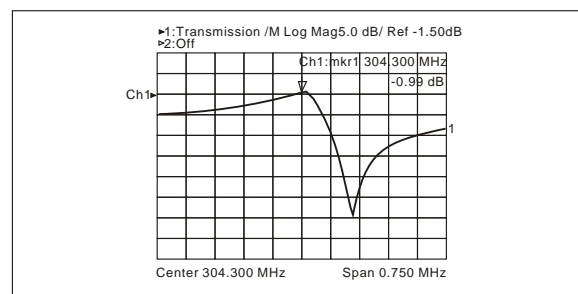
TYPICAL APPLICATION CIRCUIT



TEMPERATURE CHARACTERISTICS



TYPICAL FREQUENCY RESPONSE



PACKAGE

- Standard package in Tube: 20pcs/Tube.