

FEATURES

- The SRQ303.875-T is a true two-port, 180° surface-acoustic-wave(SAW) resonator in a low-profile TO-39 case . It provides reliable, fundamental-mode, quartz frequency stabilization of fixed-freq. Transmitters operating at 303.875MHz

APPLICATIONS

- Remote Control

SPECIFICATION *

| Parameters | | Product | Option Code |
|---|--|----------|-------------|
| | | SRQ | SRQ |
| Centre Frequency(fc) : | 303.875MHz | ▲ | 303.875 |
| Frequency Tolerance(Δ fc): | ± 100 KHz | Δ | B |
| | ± 150 KHz | Δ | C |
| | ± 200 KHz | Δ | D |
| Temp. Stability | Turnover Temp(T_o): 55°C Max. | ▲ | |
| | Turnover Frequency(f_o): fc 303.875 MHz | ▲ | |
| | Frequency Temp. Coefficient (FTC): 0.037ppm/°C ² | ▲ | |
| Insertion Loss(IL): | 8 dB Max. | ▲ | |
| Operating Temp. Range: | -10°C~+60°C | ▲ | |
| Storage Temp. Range: | -40°C~+85°C | ▲ | |
| Quality Factor | Unloaded Q(Q_u): 13,600 | ▲ | |
| | 50 Ω Loaded Q(Q_L): 6,800 | ▲ | |
| DC Insulation Resistance between Any Two Pins: | 1.0M Ω Min. | ▲ | |
| Frequency Aging Absolute Value During the First Year(fA): | ≤ 10 ppm/year | ▲ | |
| RF Equivalent RLC Model | Motional Resistance(R_m): 151 Ω Max. | ▲ | |
| | Motional Inductance(L_m): 712.663 μ H | ▲ | |
| | Motional Capacitance(C_m): 0.3853 fF | ▲ | |
| | Shunt Static Capacitance (C_o): 1.3 pF | ▲ | |
| CW Therefore Power Dissipation: | +10dBm | ▲ | |
| DC Voltage Between Any Two Pins: | ± 30 V DC | ▲ | |
| Case Temperature: | -40°C~+85°C | ▲ | |
| Holder Type: | TO-39 | Δ | T |
| Package: | Tube | Δ | U |

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

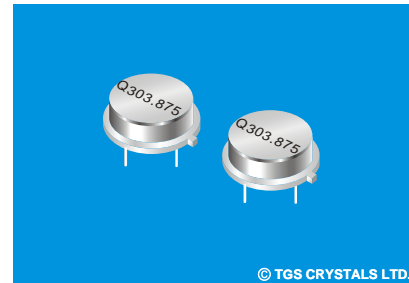
NOTE

1. Electrostatic Sensitive Device. Observe precautions for handling
2. Freq. Aging is the change in fc with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temp. Above +65°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 te resonator in te specified test fixture in a 50 Ω test system with VSWR $\leq 1.2:1$. Typically, $f_{oscillator}$ or $f_{transmitter}$ is less than the resonator fc.
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 $T_c = +25^\circ C \pm 2^\circ C$.
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_t . The nominal centre freq. at any case temp., T_c , may be calculated from: $f = f_t [1 - FTC (T_c - T_o)^2]$. Typically, oscillator T_o is 20°C less than the specified resonator T_o .

PART NUMBER GUIDE

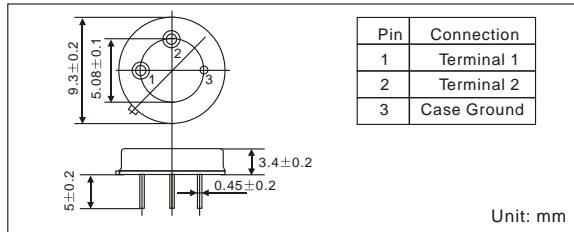
| | | | | | |
|------|-------------------------|--------------|---------------------|-------------|---------|
| TGS | SRQ | 303.875 | B | T | U |
| Mark | SAW Resonators Two-Port | Centre Freq. | Frequency Tolerance | Holder Type | Package |

e.g. TGS SRQ 303.875 B T U

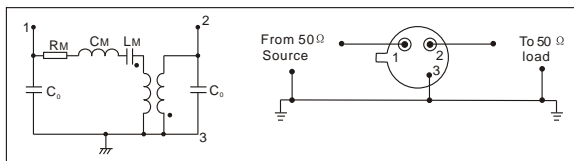


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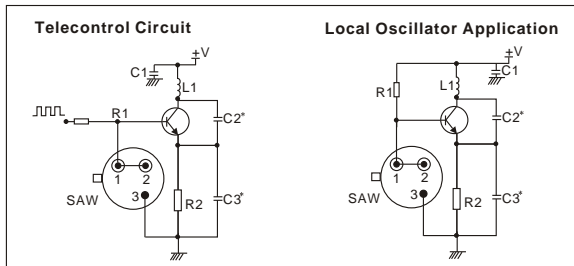
DIMENSIONS



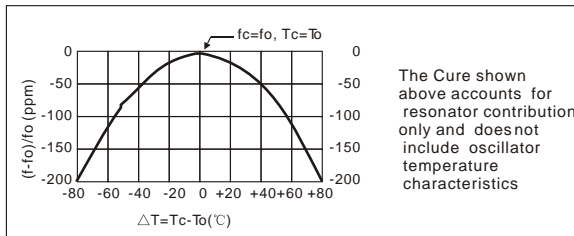
EQUIVALENT LC MODE AND TEST CIRCUIT



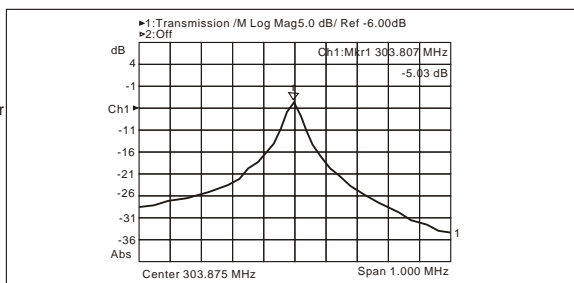
TYPICAL APPLICATION CIRCUIT



TEMPERATURE CHARACTERISTICS



TYPICAL FREQUENCY RESPONSE



PACKAGE

- Standard package in Tube: 20pcs/Tube.

