

FEATURES

- The SR980-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 980.0MHz.

APPLICATIONS

- Communication

SPECIFICATION \*

Parameters		Product	Option Code
		SR	SR
Centre Frequency( $f_c$ ) :	980.000MHz	▲	980.000
Frequency Tolerance( $\Delta f_c$ ):	$\pm 150$ KHz	$\Delta$	C
	$\pm 200$ KHz	$\Delta$	D
	$\pm 250$ KHz	$\Delta$	E
Temp. Stability	Turnover Temp( $T_o$ ): 55°C Max.	▲	
	Turnover Frequency( $f_o$ ): $f_c$ 980.0 MHz	▲	
	Frequency Temp. Coefficient (FTC): 0.037ppm/°C <sup>2</sup>	▲	
Insertion Loss(IL):	1.8 dB Max.	▲	
Operating Temp. Range:	-10°C~+60°C	▲	
Storage Temp. Range:	-40°C~+85°C	▲	
Quality Factor	Unloaded Q( $Q_u$ ): 14,000	▲	
	50 $\Omega$ Loaded Q( $Q_L$ ): 1,500	▲	
DC Insulation Resistance between Any Two Pins:		1.0M $\Omega$ Min.	▲
Frequency Aging Absolute Value During the First Year( $f_A$ ):		$\leq 10$ ppm/year	▲
RF Equivalent RLC Model	Motional Resistance( $R_m$ ): 23 $\Omega$ Max.	▲	
	Motional Inductance( $L_m$ ): 27.298 $\mu$ H	▲	
	Motional Capacitance( $C_m$ ): 0.9672 fF	▲	
	Shunt Static Capacitance ( $C_o$ ): 2.4 pF	▲	
CW Therefore Power Dissipation:		+10dBm	▲
DC Voltage Between Any Two Pins:		$\pm 30$ V DC	▲
Case Temperature:	-40°C~+85°C	▲	
Holder Type:	TO-39	$\Delta$	T
Package:	Tube	$\Delta$	U

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

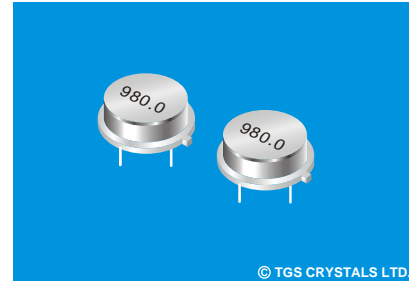
NOTE

1. Electrostatic Sensitive Device. Observe precautions for handling
2. Freq. Aging is the change in  $f_c$  with time and is specified at +65°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 the resonator in the specified test fixture in a 50  $\Omega$  test system with VSWR  $\leq 1.2:1$ . Typically,  $f_{oscillator}$  or  $f_{transmitter}$  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.,  $f_c$ , may be calculated from:  $f = f_o [1 - FTC (T_o - T_c)^2]$ . Typically, oscillator  $T_o$  is 20°C less than the specified resonator  $T_o$ .

PART NUMBER GUIDE

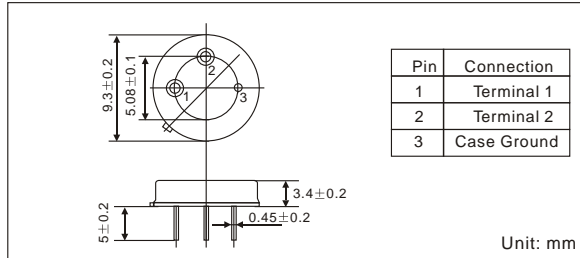
TGS	SR	980	C	M3	T
Mark	SAW Resonators One-Port	Centre Freq.	Frequency Tolerance	Holder Type	Package

e.g. TGS SR 980.0 C T U

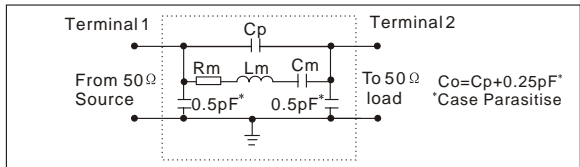


© TGS CRYSTALS LTD.

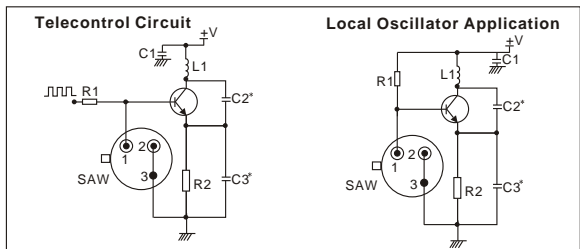
DIMENSIONS



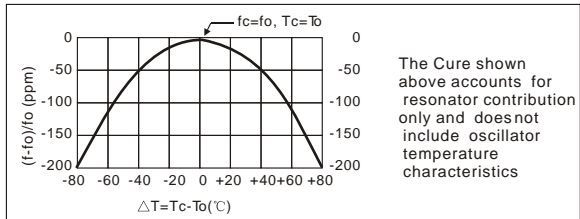
EQUIVALENT LC MODE



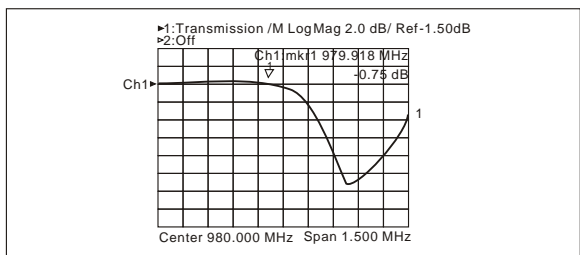
TYPICAL APPLICATION CIRCUIT



TEMPERATURE CHARACTERISTICS



TYPICAL FREQUENCY RESPONSE



PACKAGE

- Standard package in Tube: 20pcs/Tube.

