

FEATURES

- The SR333-F is a true one-port, Surface-acoustic-wave(SAW) resonator in a low-profile, F-11 case. It provides reliable, fundamental-mode, quartz frequency stabilization of fixed-frequency transmitters operating at 333.0MHz.

APPLICATIONS

- Communication

SPECIFICATION \*

Parameters		Product	Option Code
		SR	SR
Centre Frequency(fc) :	333.0MHz	▲	333.0
Frequency Tolerance( $\Delta$ fc):	$\pm 75$ KHz	$\Delta$	A
	$\pm 100$ KHz	$\Delta$	B
	$\pm 150$ KHz	$\Delta$	C
	$\pm 200$ KHz	$\Delta$	D
Temp. Stability	Turnover Temp( $T_o$ ): 55°C Max.	▲	
	Turnover Frequency( $f_o$ ): fc 333.0 MHz	▲	
	Frequency Temp. Coefficient (FTC): 0.037ppm/°C <sup>2</sup>	▲	
Insertion Loss(IL):	2.2 dB Max.	▲	
Operating Temp. Range:	-10°C~+60°C	▲	
Storage Temp. Range:	-40°C~+85°C	▲	
Quality Factor	Unloaded Q(Q <sub>u</sub> ): 10,800	▲	
	50 $\Omega$ Loaded Q(Q <sub>L</sub> ): 1,800	▲	
DC Insulation Resistance between Any Two Pins:	1.0M $\Omega$ Min.	▲	
Frequency Aging Absolute Value During the First Year(fA):	$\leq 10$ ppm/year	▲	
RF Equivalent RLC Model	Motional Resistance(R <sub>m</sub> ): 29 $\Omega$ Max.	▲	
	Motional Inductance(L <sub>m</sub> ): 103.228 $\mu$ H	▲	
	Motional Capacitance(C <sub>m</sub> ): 2.2138 fF	▲	
	Shunt Static Capacitance (C <sub>o</sub> ): 2.8 pF Max.	▲	
CW Therefore Power Dissipation:	10dBm	▲	
DC Voltage Between Any Two Pins:	$\pm 30$ V DC	▲	
Case Temperature:	-40°C~+85°C	▲	
Holder Type:	F-11	$\Delta$	F
Package:	Tube	$\Delta$	U

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

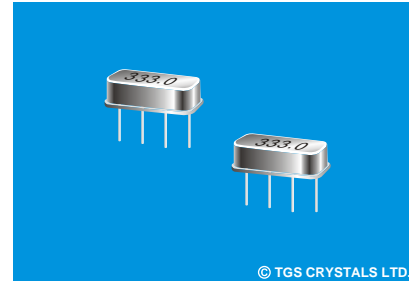
NOTE

1. Electrostatic Sensitive Device. Observe precautions for handling
2. Freq. Aging is the change in 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. Fc, is the freq. Of minimum IL with te resonator in te specified test fixture in a 50  $\Omega$  test system with VSWR  $\leq 1.2:1$ . Typically, foscillator or ftransmitter is less than the resonator fc.
4. Typically, equipment utilizing this device requires emissions testing and government approval. Which's the responsibility of the equipment manufacturer
5. Unless noted otherwise, case temperature Tc=+25°C  $\pm 2$ °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: fc, IL, 3dB bandwidth, fc versus Tc, and Co
8. Turnover temperature, To, is the temperature of maximum (or turnover) freq., fo. The nominal center freq. at any case temp., Tc, may be calculated from : f = fo [1-FTC (To-Tc)<sup>2</sup>]. Typically, oscillator To is 20°C less than the specified resonator To.

PART NUMBER GUIDE

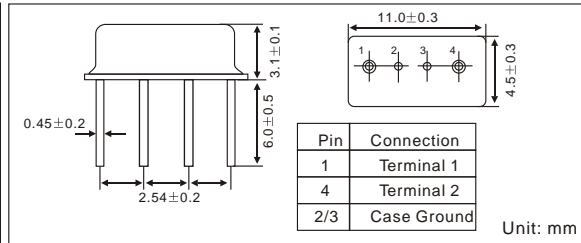
TGS	SR	333	B	F	U
Mark	SAW Resonators One-Port	Centre Freq.	Frequency Tolerance	Holder Type	Package

e.g. TGS SF 333.0 B F U

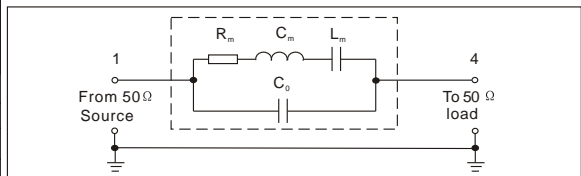


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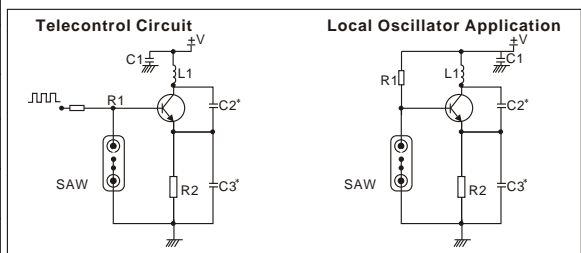
DIMENSIONS



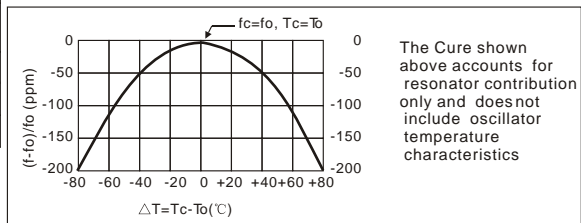
EQUIVALENT LC MODE



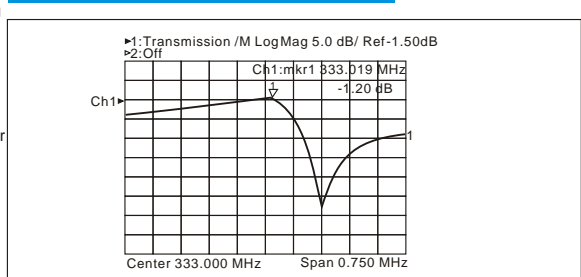
TYPICAL APPLICATION CIRCUIT



TEMPERATURE CHARACTERISTICS



TYPICAL FREQUENCY RESPONSE



PACKAGE

- Standard package in Tube: 20pcs/Tube.

