#### FEATURES

• The SR800-M3 is a true one-port, Surface-acoustic-wave(SAW) resonator in a low-profile, M3 case. It provides reliable, fundamental-mode, quartz frequency stabilization of fixed-frequency transmitters operating at 800.0MHz.

#### APPLICATIONS

Remote Control

### SPECIFICATION

| P                                | arameters                | Product                  | Option Code |        |
|----------------------------------|--------------------------|--------------------------|-------------|--------|
|                                  |                          |                          | SR          | SR     |
| Centre Frequency(fc):            |                          | 800.000MHz               | <b>A</b>    | 800.00 |
| Frequency Tolerance(△fc)         |                          | ±150KHz                  | Δ           | С      |
|                                  |                          | $\pm 200$ KHZ            | Δ           | D      |
|                                  |                          | $\pm 250$ KHZ            | Δ           | Е      |
| Temp.<br>Stability               | Turnover Temp(           | <b>To):</b> 55℃Max.      | <b>A</b>    |        |
|                                  | Turnover Freque          |                          |             |        |
|                                  |                          | <b>A</b>                 |             |        |
|                                  | Frequency Temp<br>(FTC): | <b>A</b>                 |             |        |
| Insertion Loss(IL): 2.0 d        |                          | 2.0 dB Max.              | <b>A</b>    |        |
| Operating Temp. Range: -10℃~+60℃ |                          |                          | <b>A</b>    |        |
| Storage Tem                      | p. Range:                | <b>A</b>                 |             |        |
| Quality<br>Factor                | Unloaded Q(Qu):          | 9,394                    | <b>A</b>    |        |
|                                  | 50 Ω Loaded Q(G          | L): 1,500                | •           |        |
| DC Insulatio                     | n Resistance betw        |                          |             |        |
| Pins:                            |                          | <b>A</b>                 |             |        |
|                                  | Aging Absolute           |                          |             |        |
| the First Ye                     | ear(fA):                 | <b>A</b>                 |             |        |
| RF<br>Equivalent<br>RLC Model    | Motional Resista         | ance(Rм):<br>26ΩMax.     | <b>A</b>    |        |
|                                  | Motional Induct          |                          |             |        |
|                                  |                          | <b>A</b>                 |             |        |
|                                  | Motional Capaci          |                          |             |        |
|                                  |                          | 1.11509 fF               | <b>A</b>    |        |
|                                  | Shunt Static Ca (Co):    | pacitance<br>2.7 pF Max. | <b>A</b>    |        |
| CW Therefo                       | re Power Dissipa         | <b>A</b>                 |             |        |
| DC Voltage Between Any Two Pins: |                          |                          |             |        |
|                                  |                          | ±30V DC                  | <b>A</b>    |        |
| Case Temperature: -40°C~+85°C    |                          |                          | <b>A</b>    |        |
| Soldering Temperature: +235℃     |                          |                          | <b>A</b>    |        |
| Holder Type: 5.0X5.0X1.35mm      |                          |                          | Δ           | М3     |
| Package: Tape/l                  |                          | Tape/Reel                | Δ           | Т      |
|                                  |                          |                          |             | •      |

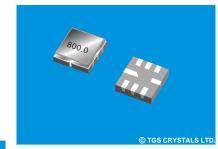
▲ Standard \* Specifications Subject to Change Without Notice △ Optional: please specify required code when inquiring or ordering

- 1. Electrostatic Sensitive Device. Observe precautions for handling
- 2.Freq. aging is the change in  $f_c$  with time and is specified at +65  $^{\circ}$ C or less. Aging may exceed the specification for prolonged temp. above +65  $^{\circ}$ C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
- 3.The center freq., fc, is measured at the minimum insertion loss point, ILmin, with the resonator in the 50 Ω test system (VSWR≤1.2:1). Tpically, Tfoscillator or ftransmitter is appr. equal to the resonator fc.
- 4.Typically, equipment utilizing this device requires emissions approval, which is the responsibility of the equipment manufacturer.
- 5.Unless noted otherwise , case temperature Tc=+25°C±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, 3 dB bandwidth, fc versus Tc, and Co
- 8. Turnover temperature, T<sub>o</sub>, is the temperature of maximum (or turnover) freq., f<sub>o</sub>, The nominal center freq. at any case temp., Tc, may be calculated from :f=  $f_{0}$  [1-FTC  $(T_{0}\text{-}T_{c})^{2}].$  Typically, oscillator  $T_{0}$  is appr. equal to the specified resonator To.

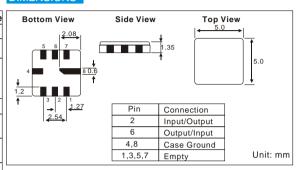
### PART NUMBER GUIDE

| TGS  | SR             | 800    | С         | М3     | Т       |
|------|----------------|--------|-----------|--------|---------|
| Mark | SAW Resonators | Centre | Frequency | Holder | Package |
|      | One-Port       | Freq.  | Tolerance | Type   |         |

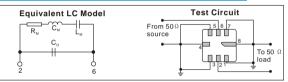
#### e.g. TGS SR 800.0 C M3 T



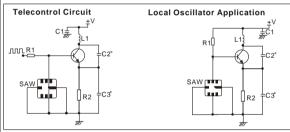
#### DIMENSIONS



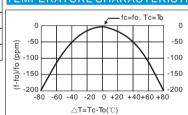
## **EQUIVALENT LC MODEL AND TEST CIRCUIT**



# TYPICAL APPLICATION CIRCUIT

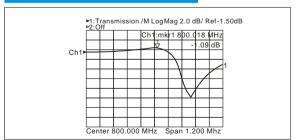


# TEMPERATURE CHARACTERISTICS



The Cure shown above accounts for resonator contribution only and does not include oscillator temperature characteristics

### TYPICAL FREQUENCY RESPONSE



# **PACKAGE**

 Standard package in T/R: 3000pcs/Reel, 2Reel/box, 5box/Carton See page 182 for detail dimensions

