

Main Feature

- RoHS/RoHS Compliant
- SMD type
- Low cost and short lead time

Application

- Consumer Electronics
- Communications



3.7X3.1X1.2mm

Standard Specification

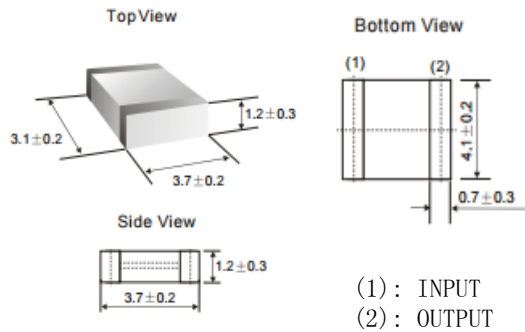
Frequency Range: 8.00~50.00MHz
 Frequency Accuracy At 25°C : ±0.5%
 Temp. Stability At -20°C ~80°C : ±0.3%
 Load Capacitance C1,C2: MT:30pF
 MX:30pF (16.01~19.99MHz), 15pF (20.00~25.99MHz), 5pF (26.00~50.00MHz)
 Operating Temp. Range: -20°C ~+80°C
 Storage Temp. Range: -40°C ~+85°C
 Equivalent Series Resistance (ESR): 40 ohm Max.
 Withstanding Voltage: 50V DC 1minute
 Rating Voltage: D. C. Voltage: 6V. D. C.
 A. C. Voltage: 15Vpp
 Insulation Resistance(Ω): 100M ohm Min. (at 10V DC)
 Aging (Over 10 years): ±0.5%ppm
 Supply Voltage VDD: +5.0V
 Design Mode: See Table 1

Table 1

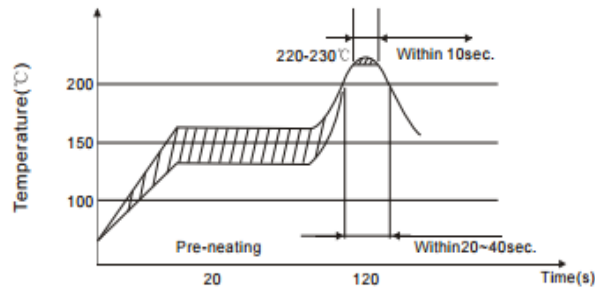
Design Mode	Freq. Range	Option Code
Thickness Expander Mode	8.000 ~ 12.0 MHz	T
Thickness Expander Mode (3rd Overtone)	16.01 ~ 50.0 MHz	X

*Specifications Subject to Change Without Notice
 **Please specify frequency Range before order/Inquiry

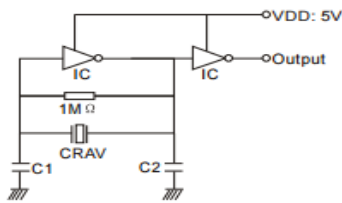
Dimension (Unit: mm)



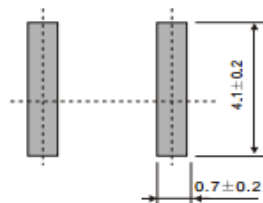
RECOMMENDED REFLOW SOLDERING STANDARD CONDITIONS



TEST CIRCUIT



RECOMMENDED LAND PATTERN (Unit: mm)



TGS part No. Guide

TGS	CR	A	V	12.0M	X	T
	1	2	3	4	5	6

- 1) CR: Ceramic Resonator 2) A: Without built-in Capacitance 3) S:Dimensions
 4) 12.0M: Freq. Range 5) X: Design Mode 6) T: Tape/Reel (Package)