

Main Features

- RoHS compliant
- Low Profile
- Cross Ref. No. ABLS and more
- 3 pads available



Application

- Communication, Test equipment
- Computers, Modems, Microprocessors

11.4\*4.7\*3.0mm

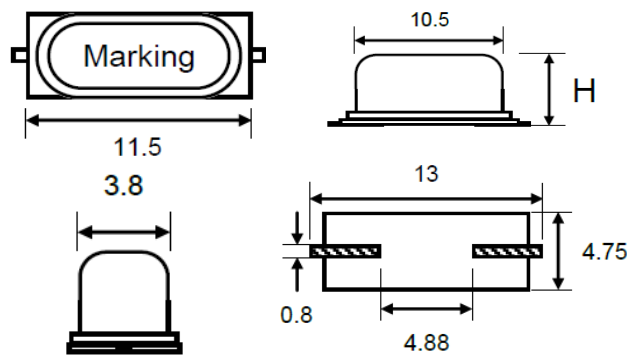
Standard Specification

Frequency Range: 3.2000MHz ~ 100.000Hz  
 Frequency Tolerance (at 25°C): ±10~ ±50ppm  
 Load Capacitance: 18pF (Typ.) or Specify  
 Frequency Stability: ±10 ~ ±100ppm  
 Operating Temperature: -20°C ~ +70°C and -40°C ~ +85°C  
 Equivalent Series Resistant: see Table 1  
 Storage Temperature: -55 °C ~ +125°C (typ.)  
 Aging (at 25°C): ±5ppm Max.  
 Shunt Capacitance (C0): 7.0pF Max.  
 Drive Level: 100 μW Typ.  
 Package:Tape/Reel

Standard ESR Table 1

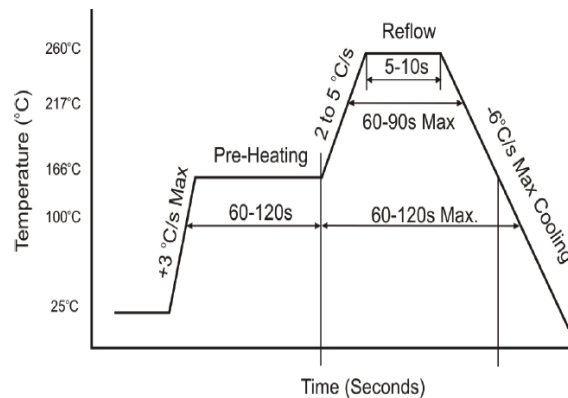
Frequency Range in MHz	ESR Value in Ohm Max.
3.2000~3.5780 (Fund.)	250
3.579000~3.999 (Fund.)	150
4.0000~4.9999 (Fund.)	120
5.00005.999 (Fund)	100
6.0000~9.999 (Fund)	80
10.0000~13.999 (Fund)	50
14.0000~25.999 (Fund)	40
26.000~39.999 (3rd OT)	100
40.000~100.000 (3rd OT)	80

Dimension (Unit: mm)



CSM2: H= 4.0+/-0.2  
 CSSM2: H=3.0+/-0.2

Reflow Profile Condition(260 ° C Max.)



TGS part No. Guide

TGS	CSSM2	12MOA	50-	18-	50-	40-	80	T	LF	XX
	1	2	4	5	6	7	8	9	10	11

- 1) CSM2: TGS Part Family No.
- 2) 12M0: Frequency Range in MHz or specify
- 3) Oscillator Mode-A: AT- Cut Fund; B: Bt-Cut;C:3rd OT
- 4) 50: Frequency Tolerance in +/-50ppm or specify
- 5) 18: Load Capacitor in pF or specify
- 6) 50: Frequency Stability in +/-50 ppm or specify
- 7) 40: Operating Temp. in -40° C ~ + 85° C or specify
- 8) 80: ESR Max. in 80 ohm or see table 1
- 9) T: Tape /Reel
- 10) LF: RoHS compliant
- 11) XX: 2 letters as Internal Control Code