

Main Features

- RoHS compliant
- Low Profile
- Cross Ref. No. ABL and more
- 3 pin available



Application

- Communication, Test equipment
- Computers, Modems, Microprocessors

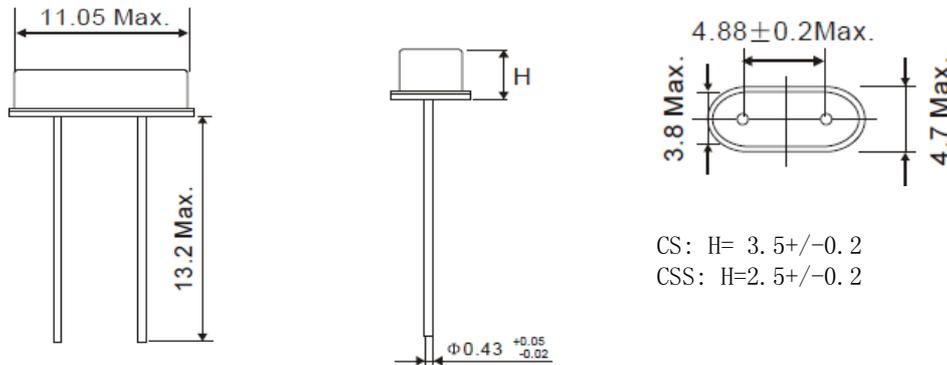
Standard Specification

Frequency Range: 3.2000MHz ~ 100.000Hz  
 Frequency Tolerance (at 25°C):  $\pm 10 \sim \pm 50$ ppm  
 Load Capacitance: 18pF (Typ.) or Specify  
 Frequency Stability:  $\pm 10 \sim \pm 100$ ppm  
 Operating Temperature:  $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$  and  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$   
 Equivalent Series Resistant: see Table 1  
 Storage Temperature:  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (typ.)  
 Aging (at 25°C):  $\pm 5$ ppm Max.  
 Shunt Capacitance (C0): 7.0pF Max.  
 Drive Level: 100  $\mu\text{W}$  Typ.  
 Package: in Bulk

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)



CS: H= 3.5+/-0.2  
 CSS: H=2.5+/-0.2

TGS part No. Guide

TGS	CSS	12M0A	50-	18-	50-	40-	80	B	LF	XX
	1	2	3/4	5	6	7	8	9	10	11

- 1) CSS: 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  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  or specify
- 8) 80: ESR Max. in 80 ohm or see table 1
- 9) B: In Bulk
- 10) LF: RoHS compliant
- 11) XX: 2 letters as Internal Control Code