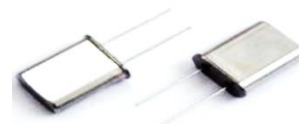


**Main Feature**

- RoHS compliant
- Cross Ref. No. AB and more
- 3 pins available



11.05\*13.46\*5.0mm

**Application**

- Communication, Test equipment
- Computers, Modems, Microprocessors

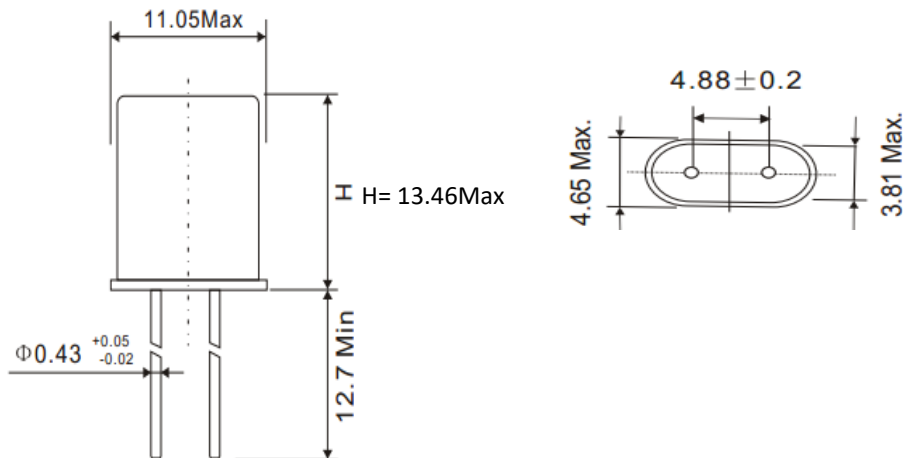
**Standard Specification**

Frequency Range: 1.8432MHz ~ 200.000Hz  
 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: -40 °C~ +85°C (typ.)  
 Aging (at 25°C): ±5ppm Max.  
 Shunt Capacitance (C0): 7.0pF Max.  
 Drive Level: 100µW Typ.  
 Package: in Bulk

**Standard ESR Table 1**

Frequency Range in MHz	ESR Value in Ohm Max.
1.8432~2.3990 (Fund.)	650
2.4000~2.9990 (Fund.)	300
3.0000~3.4990 (Fund.)	250
3.5000~3.9990 (Fund.)	120
4.0000~4.9990 (Fund.)	100
5.0000~5.9990 (Fund.)	70
6.0000~7.9990 (Fund.)	60
8.0000~12.999 (Fund.)	40
13.000~29.999 (Fund.)	35
30.000~89.999(3rd OT)	60
90.000~150.99(3rd OT)	100
151.00~200.000(3rd OT)	120

**Dimension ( Unit: mm )**



**TGS part No. Guide**

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

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