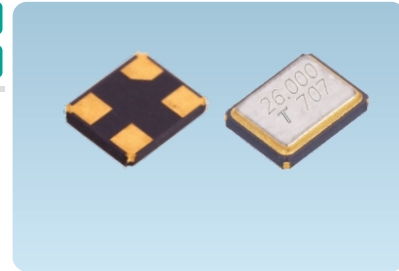


RoHS compliance

## TX3 Type

3.2×2.5×0.7mm typ

12MHz up to 60MHz



### Feature

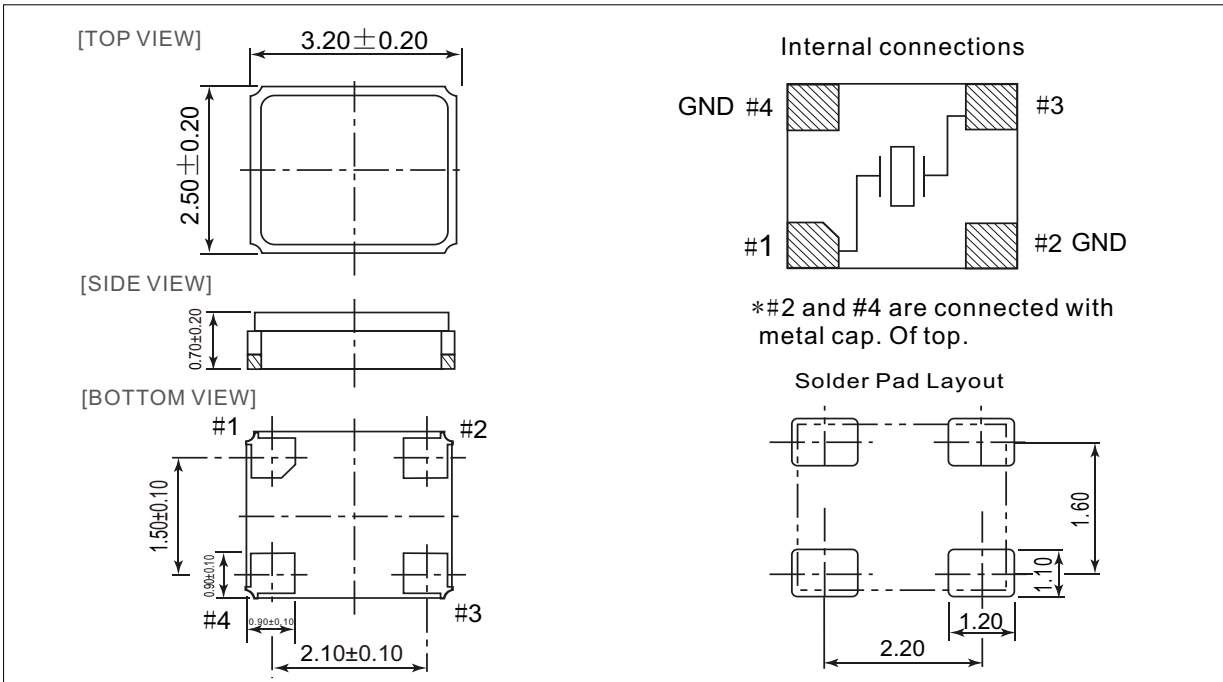
A small surface mount type crystal unit, especially suited for small-sizing requirements.

- Ultra compact and thin.(3.2×2.5×0.7 mm typ.)
- Tight Tolerance 10ppm available.
- Application:Bluetooth ;Mobile phone;W-LAN;Office Automation; Audio & Visual.
- Meets the requirements for re-flow profiling using lead-free solder.

### Specifications

Item	Type	TX3-Type			
		12~13MHz	13~19.5MHz	19.5~27MHz	27~60MHz
Frequency Range		12~13MHz	13~19.5MHz	19.5~27MHz	27~60MHz
Oscillator Mode		Fundamental			
Load Capacitance		8pF to Series			
Drive Level		10μW(200μW max.)			
Frequency Tolerance		±10×10 <sup>-6</sup> ,±20×10 <sup>-6</sup> ,±30×10 <sup>-6</sup> ,±50×10 <sup>-6</sup> (at 25°C)			
Series Resistance		150Ω max.	80Ω max.	60Ω max.	50Ω max.
Operating Temperature Range		-10~+60°C, -20~+70°C, -40~+85°C			
Storage Temperature Range		-55~+125°C			
Packing Unit		3000pcs/reel(Ø180)			

### Outline Drawing(mm)



### Frequency Stability Vs. Temperature Range

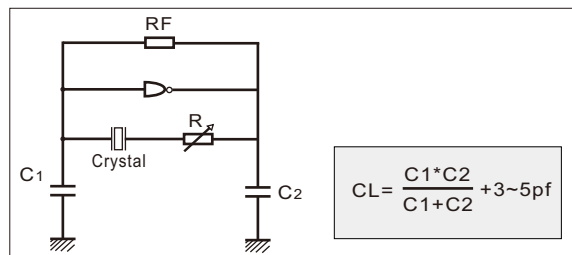
Temp.(°C)	Ppm	±5	±10	±15
-10 ~ +60		+	✓	✓
-20 ~ +70		×	✓	✓
-40 ~ +85		×	×	+

Temp.(°C)	Ppm	±15	±20	±30	±50
-40 ~ +105		+	✓	✓	✓
-40 ~ +125		×	×	+	✓

✓ Available + Conditional × Not Available

### Oscillation Circuit of Fundamental Mode



Q.C  
PASS

T1903A