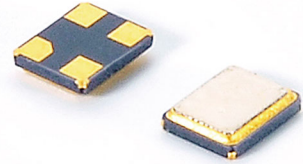


# 2.5x2.0 SMD Crystal

## Part Number Guide

T-M-FF.FFFM-LC-FTFS-OT-ESR-TR-S

- T (Type型号) : N=2.5x2.0 SMD 4pads
- M (Mode of Operation振荡模式) : F=Fundamental
- F (Frequency标称频率) : Normal - 5 digitals of Frequency, e.g. 16.000M  
 Special - All digitals of Frequency, e.g. 28.63636M
- LC (Load Capacitance负载电容) : 20=20pf 00=series, etc
- FT (Frequency Tolerance调整频差) : 30=±30 ppm, etc
- FS (Frequency Stability温度频差) : 50=±50 ppm, etc
- OT (Operating Temperature工作温度) : 1060=-10°C to +60°C 4085=-40°C to +85°C, etc
- ESR (Equivalent Series Resistance等效阻抗)
- TR (Tape and Reel编带)
- S (Special Requirement特殊要求)



**Pb Free**      **RoHS Compliant**  
 Directive 2002/95/EC

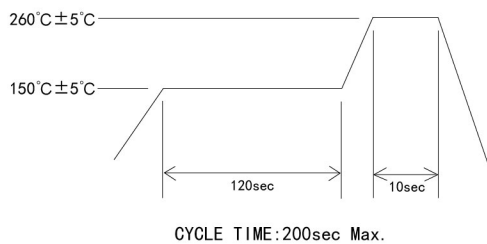
## Electrical Specifications 电气参数

型号	Holder Type	2.5x2.0mm Ceramic Surface Mount
频率范围	Frequency Range	16.000MHz to 60.000MHz
调整频差	Frequency Tolerance ( $\Delta F$ ) (at 25°C)	±10ppm to ±100ppm
温度频差	Frequency Stability	±10ppm to ±100ppm
工作温度范围	Operating Temperature Range	-10°C ~ +60°C to -40°C ~ +85°C
储存温度范围	Storage Temperature Range	-40°C ~ +85°C / -55°C ~ +125°C
老化	Aging (25°C)	±5ppm/year Maximum
静电容	Shunt Capacitance (C0)	7pF Maximum
激励功率	Drive Level	10µW Typical
绝缘阻抗	Insulation Resistance (Rs)	500 Megaohms Minimum at D.C100V
负载电容	Load Capacitance (CL)	Suggested by customer

## Equivalent Series Resistance and Mode of Operation 等效阻抗和振荡模式

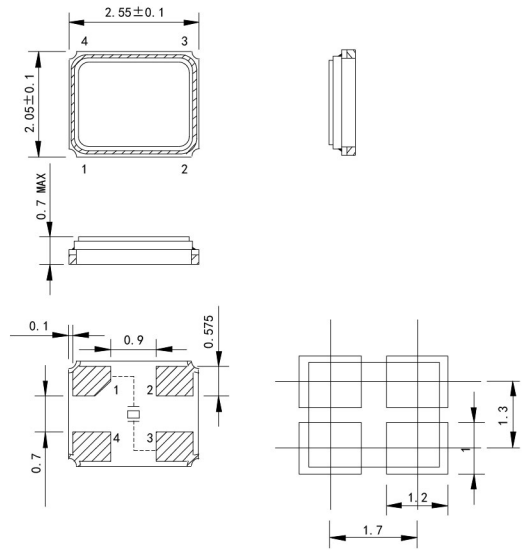
Frequency Range 频率范围	ESR (Ω) 等效阻抗	Mode 振荡模式
16.000-20.000MHz	80Max	Fundamental
20.000-30.000MHz	60Max	Fundamental
30.000-35.000MHz	50Max	Fundamental
≥ 35.000MHz	40Max	Fundamental

## Reflow Condition 回流焊条件



## Mechanical Dimensions 外型尺寸

UNIT (单位) : mm (毫米)



suggested solder pad layout

Note) #2, #4 is connected with a cover (Please connect with a GND or a power supply)