

4x2.5 SMD Crystal

Part Number Guide

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

T (Type型号): J=4x2.5 SMD 4pads

M (Mode of Operation振荡模式): F=Fundamental T=Third Overtone, etc

F (Frequency标称频率): Normal - 5 digitals of Frequency, e.g. 12.000M

Special - All digitals of Frequency, e.g. 13.225625M

LC (Load Capacitance负载电容): 20=20pf 00=series, etc

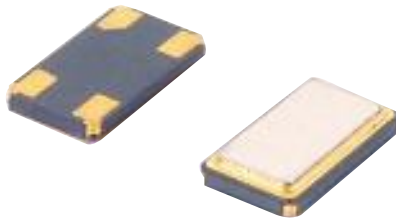
FT (Frequency Tolerance调整频差): 30=±30 ppm, etc

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)

A (Automotive车载应用)



Pb
Free

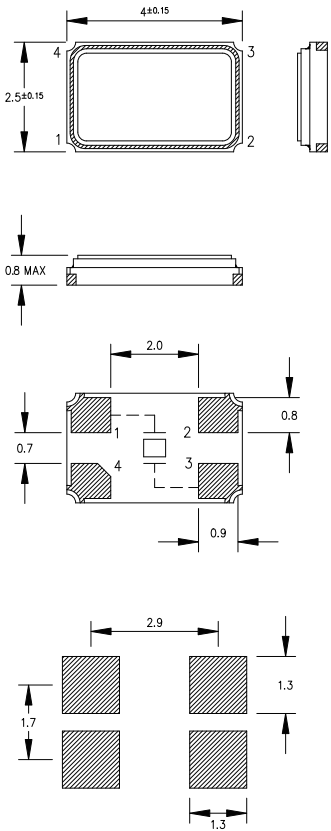
RoHS Compliant

Electrical Specifications 电气参数

Item 项目	Spec 规格		Condition 条件
Frequency Range 频率范围	12MHz~60MHz		For further questions regarding specifications, please feel free to contact us. 对于超出标准的规格, 请联系我们
Operating Temperature 工作温度	-40~85°C, -55~125°C		
Drive Level 激励功率	100 μ w max		It is recommended to use 1 μ w~100 μ w 推荐1 μ w~100 μ w
Load Capacitance 负载电容	5pF~∞		For further questions regarding specifications, please feel free to contact us. 对于超出标准的规格, 请联系我们
Frequency Tolerance 调整频差	±30ppm Standard (±10~±50ppm Available)		
Frequency Stability 温度频差	±30ppm@-40~85°C ±50ppm@-55~125°C		
Aging 老化率	±3ppm, F0<30MHz ±5ppm, F0≥30MHz		
Storage Temperature 储存温度	-55~125°C		
ESR 等效阻抗 (Ω)	12MHz≤F0<6MHz	80 Ω	For further questions regarding specifications, please feel free to contact us. 对于超出标准的规格, 请联系我们
	16MHz≤F0<20MHz	60 Ω	
	20MHz≤F0<24MHz	50 Ω	
	24MHz≤F0<60MHz	40 Ω	

Mechanical Dimensions 外型尺寸

UNIT (单位): mm (毫米)



suggested solder pad layout
Note) #2, #4 are connected to the cover
(Please connect to GND)