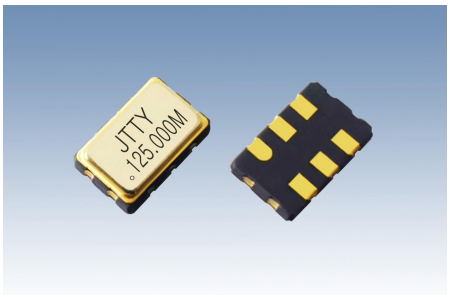
CLOCK OSCILLATOR

OS53

Product Data Sheet

JTTY®

Series SMD Clock Oscillators



产品特点 FEATURES

- 典型的5.0X3.2X1.25mm 陶瓷底座贴片封装
  Typical 5.0X3.2X1.25mm ceramic SMD package
- 非常低抖动：＜1ps(典型0.6ps) RMS
  Very low phase jitter ：＜1ps(0.6ps，typ) RMS
- 广泛的频率范围 Wide frequency range
- 可回流焊接 Can reflow

应用范围 APPLICATION

- 高速千兆以太网，光纤通道
  High-Speed Gigabit Ethernet, Fiber Channel
- 企业服务器,SAS/SATA
  Enterprise Server,SAS/SATA
- 微处理器/DSP/FPGA
  Microprocessors/DSP/FPGA
- 智能电网 Smart Grid
- 存储区域网络
  Storage Area Network

RoHS

	参数 Parameter	符号 Sym.	条件 Condition	最小值 Min.	典型 Typ	最大值 Max	单位 Unit	备注 Note
最大值等级 Maximum Ratings	输入电压范围 Input Break Down Voltage	Vcc		-0.5		+6.0	V	
	存储温度 Storage Temp.	Ts		-55		+125	℃	
电气特性 Electrical	频率范围 Frequency Range	F		10		1500	MHz	
	标称频率 Nominal Frequency	Fn					MHz	自定义 Custom
	频率精度 Frequency Tolerance	⊿F/F	@25℃	±5		±50	ppm	
	频率稳定度 Frequency Stability	⊿F/F		±10		±100	ppm	注 1 Note 1
	工作温度范围 Operating Temp. Range			-20 ~ +70			℃	标准 Standard
				-40 ~ +85				工业控制 Extended
				-55 ~ +125				汽车及军工 Car&Military
	存贮温度 Storage Temp.Range			-55 ~ +125			℃	
	年老化率 Aging Per Year		@25℃			±3.0	ppm	
	工作电压 Input Voltage	Vcc		3.15 2.38	3.30 2.50	3.45 2.63	V	
	消耗电流 Input Current	Icc				80	mA	注 2 Note 2
	输出波形 Output Wave		LVPECL 、LVDS					
	负载 Load	L	50 Ω(LVPECL) ； 100Ω(LVDS)					
	占空比 Duty Cycle		@50% output Swing	45		55	%	
	上升/下降 时间 Rise/Fall Time	Tr/Tf				1.0	ns	注 3 Note 3
			@3.3V		@2.5V			
	逻辑1输出电平 Logic 1 Level	Voh	2.275		1.475		V	LVPECL
	逻辑0输出电平 Logic 0 Level	Vol		1.68		0.88		
	逻辑1输出电平 Logic 1 Level	Voh	1.6		1.6		Vcc	LVDS
	逻辑0输出电平 Logic 0 Level	Vol		0.9		0.9		
	RM相位抖动 RMS Phase Jitter		Integrated12KHz~20MHz At Integer Mode		0.6	1.0	ps	
	相位噪声 Phase Noise		10Hz 100Hz 1KHz 10KHz			-70 -95 -125 -140	dBc/Hz	@156.25MHz
	启动时间 Start-up Time	Ts			2	5	ms	
	启用/禁用功能 Enable/disable Function	@3.3V	当引脚1给电压(>2.4V)时，晶振输出标称频率;当引脚1给电压(<0.4V)时，晶振停止输出；当引脚1悬空时，默认高电平，晶振正常工作 Pad #1 input High(>2.4V) or open, Pad #4 Enable: Active Pad #1 input Low (<0.4V), Pad #4 Disable:High impedance					
	引脚功能 Pad Function		Pad # 1- E/D; Pad # 2- NC; Pad # 3- GND Pad # 4- Output; Pad # 5- Complementary Output; Pad # 6- Vcc					
环境和机械 Environmental and Mechanical	温度循环 Temperaure Cycle		Per MIL-STD-883E, Method 1010.7, Cond. B					
	机械冲击 Mechanical Shock		Per MIL-STD-883E, Method 2002.4, Cond .B					
	振动 Vibration		Per MIL-STD-883E, Method 2007.3, Cond .A					
	泄漏测试 Leak Testing		Per MIL-STD-883E, Method 1014					
	可焊性 Solderability		Per MIL-STD-883E, Method 2003					
	防潮 Moisture Resistance		Per MIL-STD-202, Method 106					

注释：
1：整体稳定性以25℃为基准，随着温度的变化频率、负载、老化率也将随之产生变化
2：取决于负载和频率
3：上升/下降时间随频率和电源电压的变化而变化
所有规格如有更改，恕不另行通知.

Notes:
1：Overall stability including calibration at 25℃,operating temp. range, supply variation,load variation,aging.
2：Current is load and frequency dependent.
3：Rise/Fall time varies with frequency and Supply voltage.
All specifications are subject to change without notice

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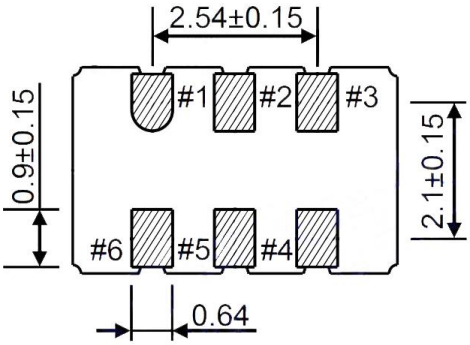
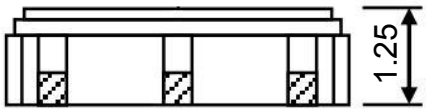
顶视图
Top View

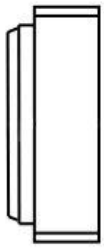
底视图
Bottom View



Unit:mm

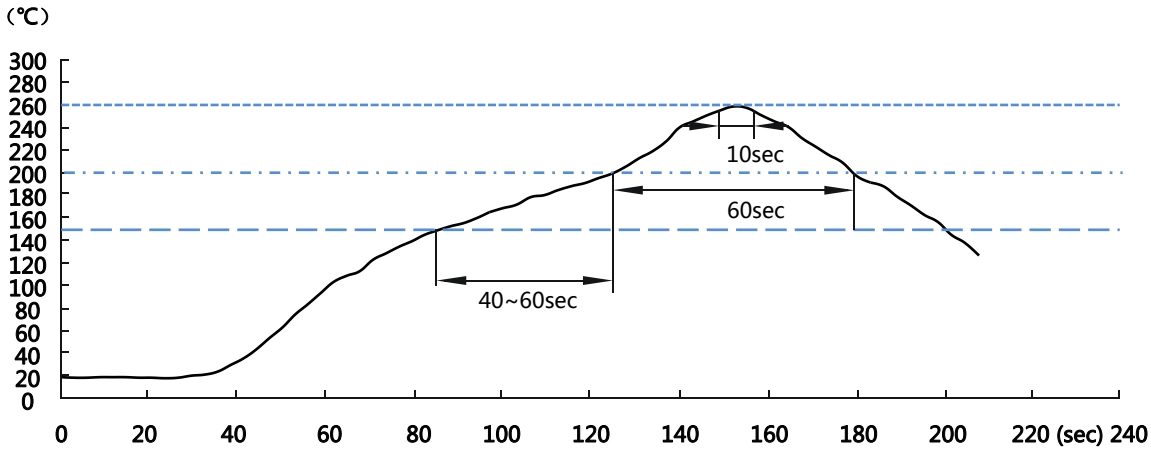
边视图
Front View





Pad Functions:	
Pad #1	E/D
Pad #2	Tri-State/NC
Pad #3	GND
Pad #4	Output
Pad #5	Complementary Output
Pad #6	Vcc

焊机温度图
Solder Profile



预热：150℃~200℃，40~60秒
加热：200℃，60秒
峰值温度260℃±5℃，
高于255℃的时间， 不超过10秒

Pre-heating：150℃ to 200℃，40~60secs
Heating：200℃，60secs
Peak temperature ：260℃±5℃，
The time above 255℃，max10sec

所有尺寸是典型的，另有规定除外
All dimensions are typical unless otherwise specified