

## Crystal Oscillator

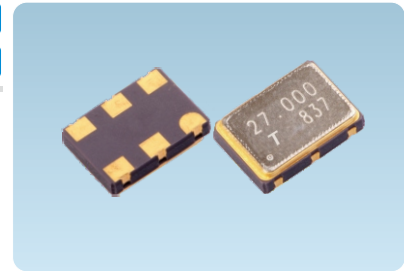


RoHS compliance

### TOT TYPE

Typical 7.0 × 5.0 × 1.75 mm

Low phase jitter



#### Feature

- Typical 7.0 × 5.0 × 1.45 mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Low phase jitter (Max:0.7psec).
- Complementary output.
- Output frequency up to 320 MHz
- Packing:Tape & Reel,1000 pcs per Reel.

#### Typical Application

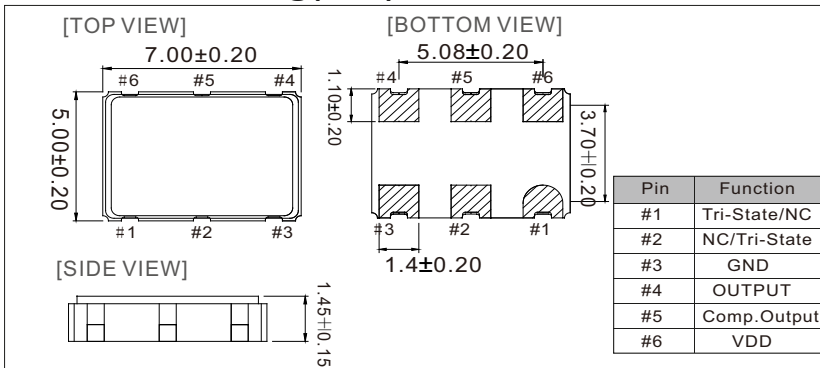
- 10G-BIT,Ethernet,MAN,SONET
- Fiber Channel
- WLAN/WiMax,xDSL

#### Specifications

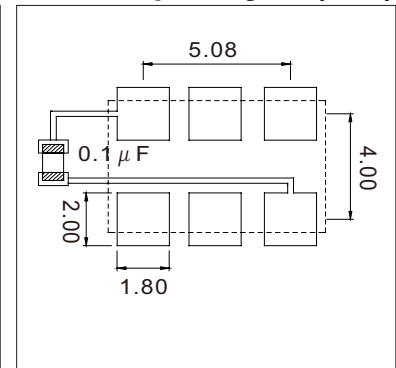
Parameter	LVPECL				LVDS				Unit
	3.3V		2.5V		3.3V		2.5V		
	Min	Max	Min	Max	Min	Max	Min	Max	
Supply Voltage Variation(VDD)	3.135	3.465	2.375	2.625	3.135	3.465	2.375	2.625	V
Frequency Range	10	320	10	320	10	320	10	320	MHz
Supply Current									
10 MHz ≤ Fo < 160MHz	–	75	–	75	–	50	–	50	mA
160MHz ≤ Fo < 250MHz	–	100	–	100	–	50	–	50	
250MHz ≤ Fo ≤ 320MHz	–	100	–	100	–	65	–	65	
Output Level(CMOS)									
Output High(Logic"1")	2.275	–	1.475	–	–	1.6	–	1.6	V
Output Low(Logic"0")	–	1.68	–	0.88	0.9	–	0.9	–	
Transition Time;Rise/Fall Time+	–	1.0	–	1.0	–	1.0	–	1.0	nSec
Start Time	–	2	–	2	–	2	–	2	mSec
Tri-State(Input to or 2 Pin 1)									
Enable (High voltage or floating)					0.7V <sub>DD</sub> Min.				V
Disable (Low voltage or GND)					0.3V <sub>DD</sub> Max.				
RMS Preiod Jitter (Integrated 12KHz~20MHz)									
Fo < 80 MHz					1Max.				pSec
80MHz ≤ Fo < 125MHz					0.5 Max.				
125MHz ≤ Fo < 170 MHz					0.3 Max.				
170MHz ≤ Fo < 200 MHz					0.5 Max.				
200MHz ≤ Fo					0.3 Max.				
Aging (@25°C 1st year)					±3Max.				ppm
Storage Temp. Range					-55~125				°C

+ Transition times are measures between 10% and 90% of VDD, With an output load of 15pF.

#### Outline Drawing(mm)



#### Solder pad layout(mm)



#### Frequency Stability Vs. Temperature Range

Temp.(°C)	Ppm	±25	±50
-10~+60	✓	✓	✓
-20~+70	✓	✓	✓
-40~+85	+	✓	✓
-40~+125	×	✓	✓

Inclusive of calibration @25°C ,operating temperature range, input voltage variation,load variation,aging(1<sup>st</sup> year), shock,and vibration

✓ Available + Conditional × Not Available

Q.C PASS

T1903A