

PY Type

2.5 x 2.0 mm SMD Crystal Oscillator

FEATURE

- Typical 2.5 x 2.0 x 0.9 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

TYPICAL APPLICATION

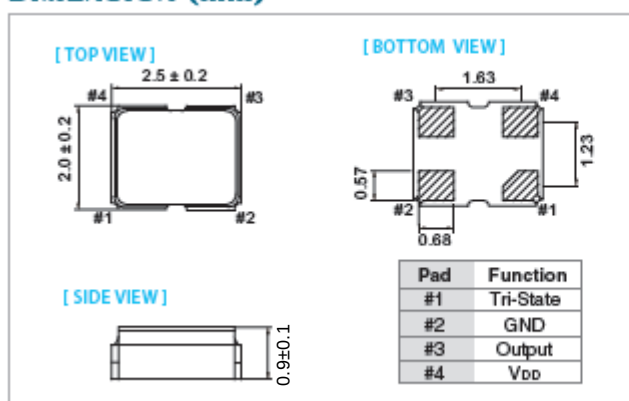
- Computer Peripherals
- Set-top Box , HDTV
- DSC, PDA

Actual Size ☐

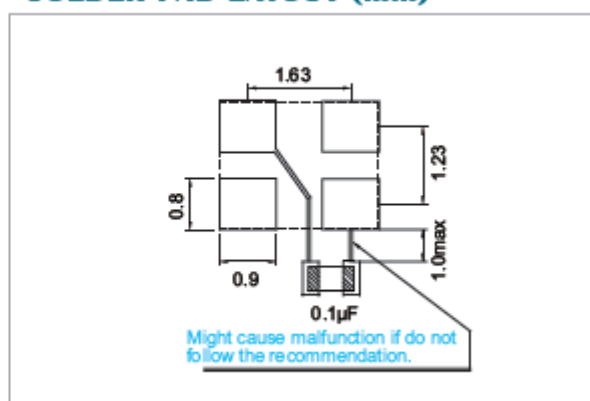


RoHS Compliant Standard

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1	200	1	166	1	100	MHz
Standard Frequency	24,26,40						
VDD Sensitivity (±10%)	-2	2	-2	2	-2	2	ppm
Supply Current							
1 MHz ≤ F0 < 30MHz	-	10	-	8	-	6	mA
30 MHz ≤ F0 < 75MHz	-	15	-	10	-	8	
75 MHz ≤ F0 < 133MHz	-	20	-	15	-	12	
133 MHz ≤ F0 < 166MHz	-	22	-	15	-	-	
166 MHz ≤ F0 < 200MHz	-	25	-	-	-	-	
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS) Output High (Logic "1")	90%VDD	-	90%VDD	-	90%VDD	-	V
Output Low (Logic "0")	-	10%VDD	-	10%VDD	-	10%VDD	
Transition Time: Rise/Fall Time*							
1 MHz ≤ F0 < 10MHz	-	3	-	4	-	5	nSec
10 MHz ≤ F0	-	2	-	3	-	4	
Start Time	-	2	-	2	-	2	mSec
Tri-State(Input to Pin1) Enable(High voltage or floating)	0.7VDD	-	0.7VDD	-	0.7VDD	-	V
Disable(Low voltage or GND)	-	0.3VDD	-	0.3VDD	-	0.3VDD	
Absolute Clock Period Jitter							
Specific Frequency**	-	40	-	40	-	40	pSec
Others	-	200	-	200	-	200	
Standby Current	-	15	-	15	-	15	µ A
Aging (@25°C 1st year)	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

* Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

** Specific frequency including 4.0, 13.0, 20.0, 26.0 and 40.0 MHz.

Packing: Tape & Reel, 3000pcs per Reel.

FREQ. STABILITY vs. TEMP. RANGE

ppm	±20	±25	±50
Temp.(°C)			
-10~ +60	O	O	O
-20 ~ +70	△	O	O
-40 ~ +85	X	O	O

* O: Available △:Conditional X: Not available

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