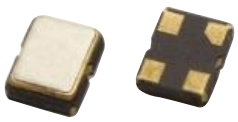
SMD Crystal Oscillator 2.5 ×2.0 mm

Feature

- Typical 2.5 x 2.0 x 0.81 mm SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: l .8V, 2.5V, 3.3V
- Tri-state enable/disable
- RoHS compliant/Pb-free

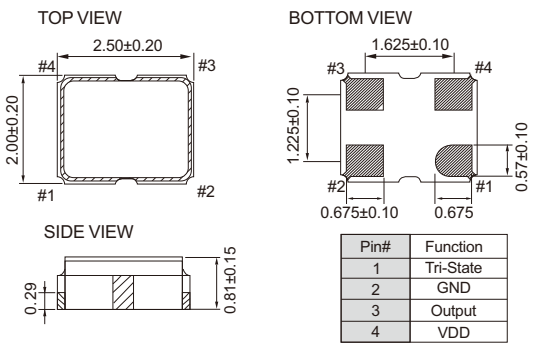


Electrical Specifications

Parameter		3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		3.135	3.465	2.375	2.625	1.71	1.89	V
Frequency Range		1.25	125	1.25	125	1.25	125	MHz
Standard Frequency		24,26,30,40						MHz
Supply Current(At 15pF Load)		-	15	-	10	-	7	mA
Duty Cycle		45	55	45	55	45	55	%
Transition Time : Rise/Fall Time	1.25 MHz≦FO<10MHz	-	3	-	4	-	5	nSec
	10 MHz≦FO<125MHz	-	3	-	3	-	4	
Output Level	Out High	2.97		2.25		1.62		V
	Out Low		0.33		0.25		0.18	
Start Time		-	2	-	2	-	2	mSec
Tri-State (Input to Pin 1)	Enable(High Voltage or floating)	2.31	-	1.75	-	1.26	-	V
	Disable(Low Voltage or GND)	-	0.99	-	0.75	-	0.54	
Period Jitter (Pk-Pk)		-	40	-	40	-	40	pSec
RMS Phase Jitter (integrated12KHz to 20MHz)		-	1	-	1	-	1	pSec
Standby Current(@-40 to 85°C)		-	10	-	10	-	10	μA
Standby Current(@-40 to 125°C)		-	20	-	20	-	20	μA
Aging(@25 1st year)		-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	°C

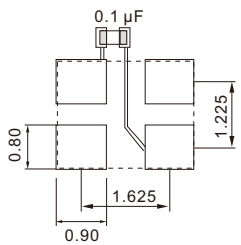
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position
.+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

Dimension(mm)



Pin#	Function
1	Tri-State
2	GND
3	Output
4	VDD

Solder Pad Layout(mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 μF as close to the part as possible between Vdd and GND pads.

FREQ. STABILITY vs. TEMP. RANGE

ppm / Temp. (°C)	±20	±25	±50
-10 ~ +60	o	o	o
-20 ~ +70	△	o	o
-40 ~ +85	x	o	o
-40 ~ +125	x	x	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 load variation