CALTRON DEVICES LTD. DXO25

Research for Frequency Control

SMD Crystal Oscillator
3.2 x 2.5 x 1.05mm Ceramic
1.0 Mhz – 200 Mhz

Features

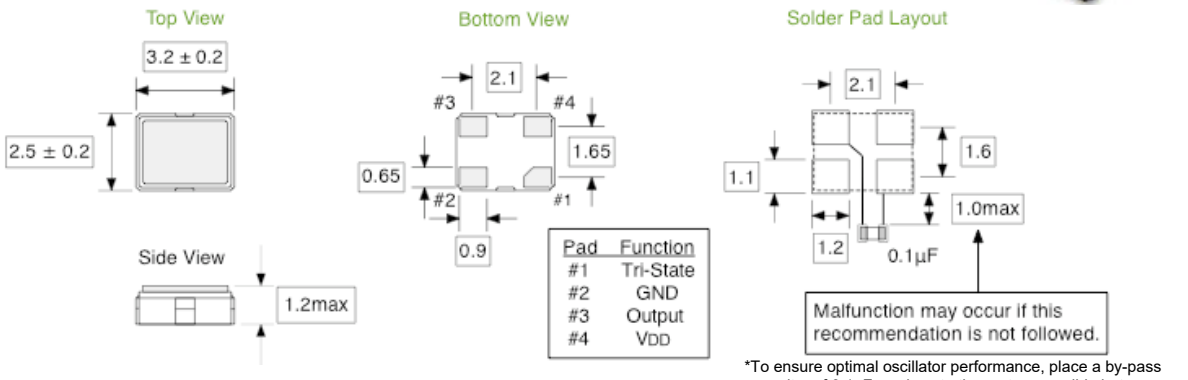
Tight Symmetry (45% – 55%)
Operational Voltage: 1.8, 2.5, 3.3V
Tape & Reel: 1K / 2K / 3K / 5K pcs. per reel
Standard 3.2 x 2.5 x 1.05 mm Ceramic SMD package

RoHS Standard Product

Typical Applications

Mobile Phone, 5G Telecom.
AIoT, Hi-speed LAN / WiMAX
NAS Storage, HDTV

Outlines & Dimensions (mm)



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

Electrical Specifications

Parameter	3.3V		2.5V		1.8V		Unit
	Min	Max	Min	Max	Min	Max	
Supply Voltage Variation (V_{DD}) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1	200	1	166	1	133	Mhz
V_{DD} Sensitivity (± 10%)	-2	2	-2	2	-2	2	ppm
Supply Current							
1MHz ≤ F_O < 30MHz	-	10	-	8	-	6	mA
30MHz ≤ F_O < 75MHz	-	15	-	10	-	8	
75MHz ≤ F_O < 133MHz	-	20	-	15	-	12	
133MHz ≤ F_O < 166MHz	-	22	-	15	-	-	
166MHz ≤ F_O ≤ 200MHz	-	25	-	-	-	-	
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS)							
Output High (Logic "1")	90% V_{DD}	-	90% V_{DD}	-	90% V_{DD}	-	V
Output Low (Logic "0")	-	10%V_{DD}		10%V_{DD}		10%V_{DD}	
Transition Time: Rise/Fall Time *							
1MHz ≤ F_O < 10MHz	-	3	-	4	-	5	nSec
10MHz ≤ F_O	-	2	-	3	-	4	
Start Time	-	2	-	2	-	2	mSec
Tri-State (Input to Pin 1)							
Output Active	0.7 V_{DD}	-	0.7 V_{DD}	-	0.7 V_{DD}	-	V
Output in High Impedance State	-	0.3 V_{DD}	-	0.3 V_{DD}	-	0.3 V_{DD}	
Absolute Clock Period Jitter							
Specific Frequency +	-	40	-	40	-	40	pSec
Others	-	200	-	200	-	200	
Standby Current	-	15	-	15	-	15	µA
Aging	-	± 3	-	± 3	-	± 3	ppm
Storage Temp. Range	-55	+125	-55	+125	-55	+125	°C

* Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15pF.

+ Specific frequency including 4.0, 6.0, 8.0, 12.0, 13.0, 16.0, 19.2, 20.0, 24.0, 26.0, 32.0, & 38.4MHz.

Freq. Stability vs. Temp. Range

Temp (°C) \ ppm	± 20	± 25	± 50
-10 - +60	S	S	S
-20 - +70	O	S	S
-40 - +85	X	O	S

S = Standard O = Optional X = Not available
* Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging (1st year), shock and vibration.

Specifications subject to change without notice.

CALTRON DEVICES LTD.

http://www.caltron.com.hk (852)2422-3407 sales@caltron.com.hk