

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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OX Type

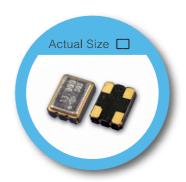
3.2 x 2.5 mm SMD Crystal Oscillator

FEATURE

- Typical 3.2 x 2.5 x 0.95 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

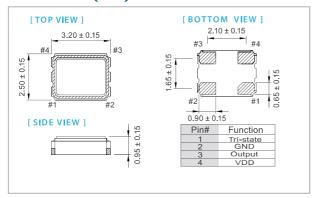
TYPICAL APPLICATION

- WLAN/WiMAX
- Mobile Phone
- DSC, Set-top Box, HDTV

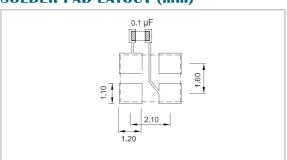


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



To ensure optimal oscillator performance, place a by-pass capacitor of $0.1\mu\text{F}$ as close to the part as possible between Vdd and GND pads.

ELECTRICAL SPECIFICATION

Parameter	3.3 V		2.5 V		1.8 V		it
Parameter	Min.	Max.	Min.	Max.	Min.	Max.	unit
Supply Voltage Variation (VDD) ±10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1.25	125	1.25	125	1.25	125	MHz
Standard Frequency			24, 26, 32, 38.4, 40				IVITZ
Supply Current 1.25 MHz ≤ Fo < 100 MHz	_	15	_	10	_	7	mA
100 MHz ≦ Fo ≦ 125 MHz	-	25	_	20	_	12	IIIA
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS) Output High (Logic "1")	2.97	_	2.25	_	1.62	_	V
Output Low (Logic "0")	_	0.33	_	0.25	_	0.18	V
Transition Time:Rise/Fall Time ⁺							
1.25 MHz ≦ Fo < 20 MHz	-	4		4	_	5	
20 MHz ≦ Fo < 80 MHz	_	3	_	3	_	4	nSec
80 MHz ≦ Fo ≦125 MHz	-	3	_	3	_	4	
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	V
Period Jitter(Pk-Pk)	-	40	-	40	-	40	pSec
RMS Phase Jitter (Integrated 12 kHz ~ 20 MHz)	_	1	_	1	_	1	pSec
Standby Current	_	10	_	10	_	10	μΑ
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.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	±20	±25	±50
-10 ~ +60	0	0	0
-20 ~ +70	Δ	0	0
-40 ~ +85	V		

- * \bigcirc : Available \triangle :Conditional X: Not available
- * Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration

Note: not all combination of options are available. Other specifications may be available upon request.

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