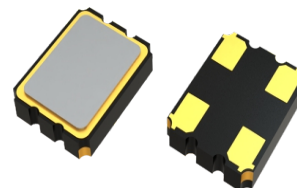


Crystal Oscillator, Series

3.2 × 2.5 mm 32.768KHz Low Current Consumption SMD Oscillator

Feature

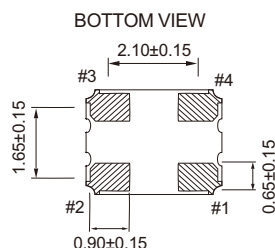
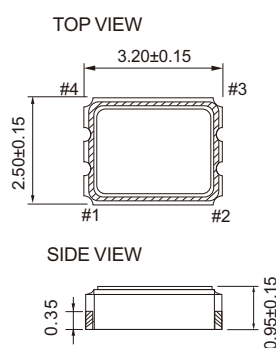
- Typical 3.2 x 2.5 x 0.95 mm SMD package.
- Low Power Supply Voltage: 3.3V, 2.5V, 1.8V
- Singled-end Output: CMOS
- Frequency: 32.768KHz
- Low Current Consumption: 10uA Max
- Temperature Range: -40 to 125 °C Operation
- Pb-free/RoHS Compliant



Electrical Specifications

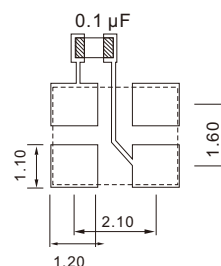
Parameter		3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		V _{DD} -10%	V _{DD} +10%	V _{DD} -5%	V _{DD} +5%	V _{DD} -5%	V _{DD} +5%	V
Supply Current(no load)		-	18	-	18	-	18	uA
Duty Cycle		45	55	45	55	45	55	%
Transition Time :Rise/Fall Time		-	15	-	15	-	15	nSec
Output Level	Out High(Logic“1”)	2.97		2.25		1.62		V
	Out Low(Logic“0”)		0.33		0.25		0.18	
Startup Time		-	20	-	20	-	20	mSec
Standby Current		-	3	-	3	-	3	uA
Output Loading(CMOS)			15	-	15	-	15	pF
Tri-State (Input to Pin 2)	Enable	2.31	-	1.75	-	1.26	-	V
	Disable	-	0.99	-	0.75	-	0.54	
Aging(@25 1st year)		-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	°C

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

Temp. (°C) \ ppm	±20	±25	±30	±50
-10 ~ +60	o	o	o	o
-20 ~ +70	Δ	o	o	o
-40 ~ +85	X	Δ	o	o
-40 ~ +105	X	X	Δ	o
-40 ~ +125	X	X	X	o

o: Available Δ :Conditional X: Not available

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