

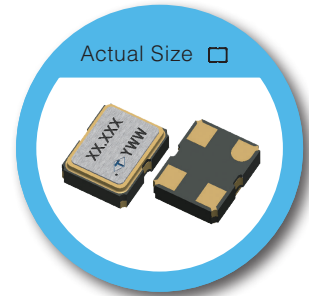
OY-D Type Ultra-low Current 32.768kHz For RTC Reference Clock 2.5 x 2.0 mm SMD Crystal Oscillator

FEATURE

- Typical 2.5 x 2.0 x 0.81 mm ceramic SMD package.
- Operation supply voltage: 1.5V, 1.8V
- RTC frequency 32.768kHz
- Ultra-Low current: 1.4uA typical.
- Frequency Stability ± 25 ppm over -40°C to 85°C @3days Average
- Pb-free/RoHS compliant

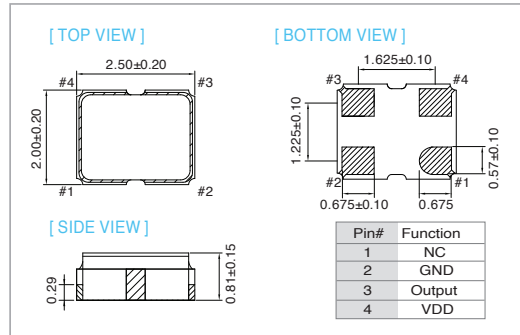
TYPICAL APPLICATION

- RTC Reference Clock
- Wearable device
- Sport Video Cams
- Ultra-small Notebook PC
- Mobile Phones
- Health and Wellness Monitors

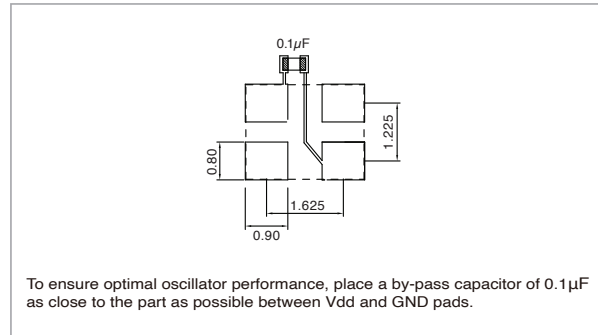


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameters	1.5V		1.8V		Unit
	Min.	Max.	Min.	Max.	
Supply Voltage Variation	V _{DD} -5%	V _{DD} +5%	V _{DD} -5%	V _{DD} +5%	V
Frequency	32.768				kHz
Frequency Tolerance (@ 25°C, 3 days average)	-10	10	-10	10	ppm
Frequency vs Temperature (@-40 to +85°C with reference to +25°C, 3days average)	-25	25	-25	25	ppm
Supply Current (@No load)	Typ. 1.4	1.8	Typ. 1.4	1.8	uA
Output Level	Output High	90% V _{DD}	-	90% V _{DD}	V
	Output Low	-	10%V _{DD}	-	10%V _{DD}
Transition Time @10%-90%	Rise Time / Fall Time		-	10	nSec
Duty Cycle	45	55	45	55	%
Startup Time	-	8	-	8	mSec
Aging (@ 25°C, First Year)	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	°C

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm		
	±20	±25	±50
-20~+70	△	○	○
-40~+85	X	○	○
-40~+105	X	△	○

*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

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