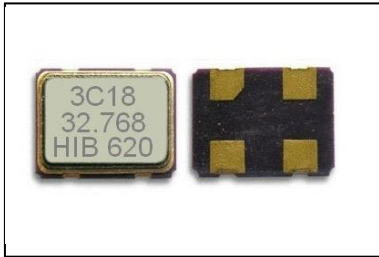


## 3C Series SMD RTC Oscillator 32.768KHz



### FEATURES

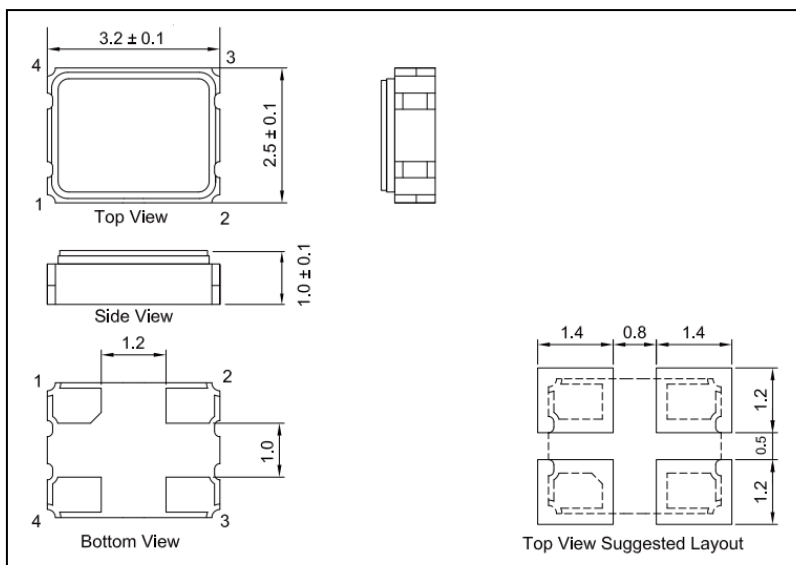
- 3.2x2.5mm, ultra small 32.768KHz RTC oscillator in seam sealed ceramic package.
- 4 PADS design to achieve good soldering contact on PCB.
- Tri-state Enable/Disable for power saving.
- Use AT crystal as the resonator for good temperature performance.

### Electrical Specifications

Parameter	Symbol	Condition	3C33	3C28	3C18
Frequency Range	$F_0$		32.768KHz		
Frequency Stability *		All Condition *	$\pm 20\text{PPM}$ , $\pm 50\text{PPM}$ , $\pm 100\text{PPM}$		
Power Supply Voltage ( $\pm 10\%$ )	$V_{DD}$		3.3V	2.8V	1.8V
Operating Temperature Range	$T_{OPR}$		-20°C to 70°C (-40°C to 85°C option)		
Storage Temperature Range	$T_{STG}$		-55°C to 125°C		
Aging (first year)		25°C $\pm$ 3°C	$\pm$ 3PPM		
Supply Current	$I_{DD}$	-	3mA Max		
Output Symmetry	Sym	$\frac{1}{2} V_{DD}$	45/55%		
Rise Time	$T_r$	10% $V_{DD}$ to 90% $V_{DD}$	300ns Max		
Fall Time	$T_f$	90% $V_{DD}$ to 10% $V_{DD}$	300ns Max		
Output Voltage	$V_{OH}$		90% $V_{DD}$ Min		
	$V_{OL}$		10% $V_{DD}$ Max		
Output Load HCMOS Load	---	---	15pF Typ.		
Startup Time	$T_s$		10ms Max		
Pin 1, tri-state function			Pin 1= High or Open, output active at Pin 3		
			Pin 1= Low, high impedance at Pin 3		

\* Include 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

### Mechanical Dimensions – mm



Enable/Disable Function	
Input (Pin1)	Output (Pin3)
Open	Enable
High	Enable
Low	Disable

Pin	Connection
1	Tri-state/NC
2	GND
3	Output
4	$V_{DD}$

\*\*Note: 0.01uF bypass capacitor should be placed between  $V_{DD}$  (Pin4) and GND(Pin2) to minimize power supply line noise