

HCMOS 3.3V 32.768kHz SMD Oscillator



MODEL: FK335 Series

RoHS & REACH Compliant / Pb Free

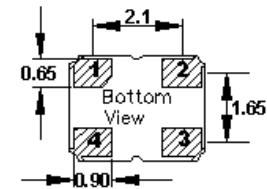
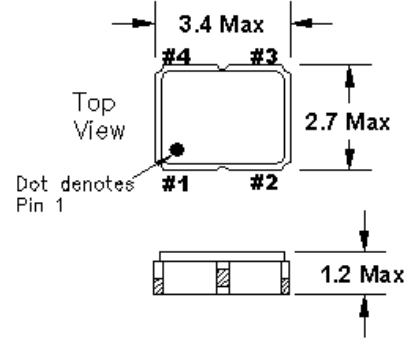
Rev. 11/19/2013

PART NUMBER SELECTION

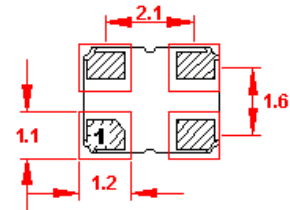
Part Number	Model Number	Frequency Stability (PPM)	Operating Temperature (°C)
861-Frequency-xx	FK335	±50	-20 ~ +70
861A-Frequency-xx	FK335R	±50	-40 ~ +85
861B-Frequency-xx	FK336	±25	-20 ~ +70
861C-Frequency-xx	FK336R	±25	-40 ~ +85
861D-Frequency-xx	FK338	±20	-10 ~ +60

SPECIFICATIONS

Parameter	Max (unless otherwise noted)
Frequency	32.768kHz
Temperature Range	See Part Number Selection -55°C ~ +125°C
Operating (T _{OPR}) Storage (T _{STG})	
Supply Voltage (V _{DD})	3.3V ±10%
Input Current (I _{DD})	130 µA
Output Symmetry (50% V _{DD})	45% ~ 55%
Rise Time (10% ~ 90% V _{DD}) (T _R)	50 nS
Fall Time (90% ~ 10% V _{DD}) (T _F)	50 nS
Output Voltage	10%V _{DD} 90%V _{DD} Min.
(V _{OL}) (V _{OH})	
Output Load (HCMOS)	15 pF
Standby Current (I _{STD})	10 µA
Start-up Time (T _S)	2 mS
Output Disable Time ²	1 µS
Output Enable Time ²	2 mS
Aging (@25°C 1 st Year)	±3 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish:	Au over Ni



Recommended Solder Pad Layout



All dimensions are in millimeters.

Pin Connections

#1 E_{DD} #3 Output
#2 GND #4 V_{DD}

¹ Inclusive of 25°C tolerance after reflow, operating temperature range, supply voltage change and aging.

² An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

Notes:

*A 0.01µF capacitor should be placed between V_{DD} (Pin 4) and GND (Pin2) to minimize power supply line noise.

*Dimensional drawing is for reference to critical specifications defined by size measurements.

Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary. All specifications subject to change without notice.

ENABLE / DISABLE FUNCTION	
Pin1	Out (pin 3)
OPEN ²	Active
'1' Level V _{IH} ≥ 70%V _{DD}	Active
'0' Level V _{IL} ≤ 30%V _{DD}	High Z