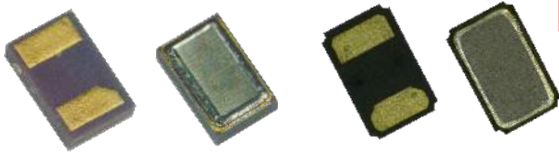


# Tuning Fork Quartz Crystals

**XK16**

**Not Recommended for New Design**



1.6 x 1.0mm SMD Ceramic Molded Tuning Fork Crystal

## Product Features

- Rugged, ceramic-molded, resistant to shock and vibration
- Excellent resistance to heat shock and environmental characteristics
- Ideally suited for automated pick-and-place assembly environments
- Available on tape & reel; 8mm tape; 5000 units per reel
- Pb-free and RoHS/Green Compliant

## Product Description

The XK16 Series is a 32.768 kHz tuning fork type quartz crystal mounted in a ceramic-molded package.

## Applications

- Real-Time Clocks
- Reference for Microprocessors' Low Power and Standby Modes
- Time Display Devices
- Smart Meters
- POS
- Networking

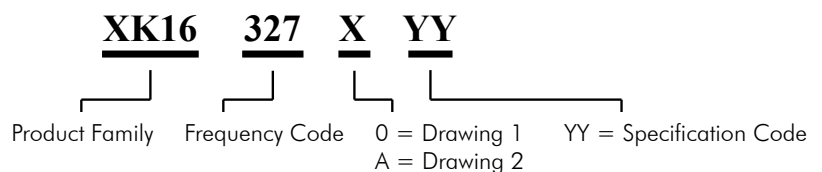
## Electrical Specification:

Nominal Frequency	f	32.768 kHz
Frequency Tolerance at 25°C		±20ppm, ±10ppm
Turnover Temperature	T <sub>0</sub>	25°C±5°C
Temperature Coefficient	K	-0.03 +/- 0.01 ppm/°C <sup>2</sup> Typical
Load Capacitance	C <sub>L</sub>	7.0 pF, 9.0 pF, 12.5 pF <sup>(1)</sup>
Equivalent Series Resistance	R <sub>S</sub>	90KΩ max
Shunt Capacitance	C <sub>0</sub>	1.25pF typical
Motional Capacitance	C <sub>1</sub>	6.5fF typical
Drive Level	DL	0.5μW max.
Operating Temperature Range		-40 to +85°C
Storage Temperature Range		-55 to +125°C
Reflow Temperature		260°C max, 10 Second

Note:

1. Other capacitance values are available. Please contact Diodes sales.

## Part Ordering Information:



# Tuning Fork Quartz Crystals XK16



A product Line of  
Diodes Incorporated



**XK16 Series Quartz Crystal**  
32.768 kHz SMD Crystal | 1.6 x 1.0mm

Package: (Scale: none; dimensions are in mm)

Figure 1

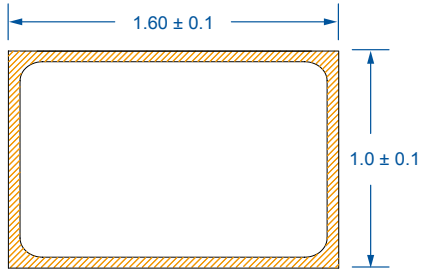
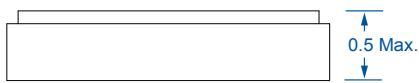
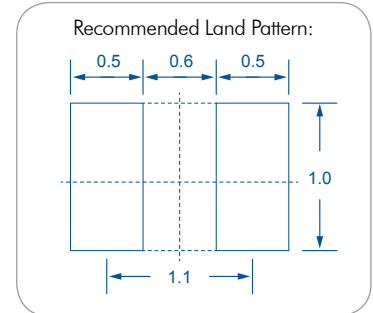
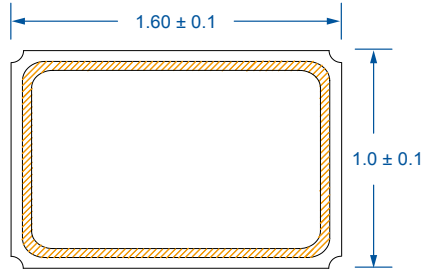
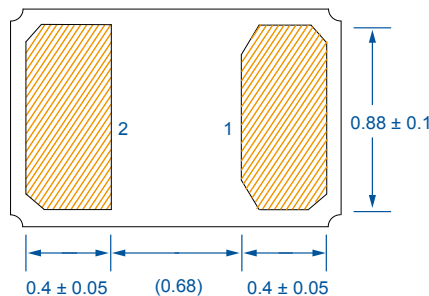
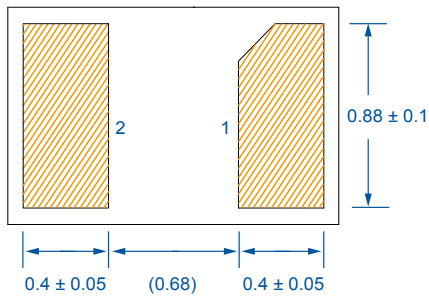


Figure 2

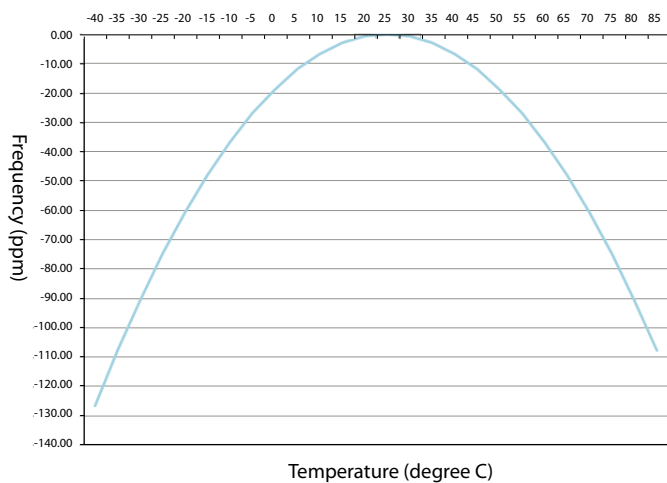


### Pin Functions:

Pin	Function
1	Xtal
2	Xtal



### Typical Temperature Characteristic:



Frequency Deviation at Temperature T

$$Df/f = K(T_0 - T)^2$$

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