



G9 Series Quartz Crystal 32.768 kHz SMD Crystal

#### 2.0 x 1.2mm

## **Tuning Fork Quartz Crystals**





2.0 x 1.2mm SMD Ceramic Molded Tuning Fork Crystal

#### **Product Features**

- Rugged, ceramic-molded, resistant to shock and vibration
- Excellent resistence to heat shock and environmental characteristics
- Ideally suited for automated pick-and-place assembly environments
- Available on tape & reel; 8mm tape; 3000 units per reel
- Pb-free and RoHS/Green Compliant

### **Product Description**

The G9 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		$\pm 20$ ppm, $\pm 10$ ppm
Turnover Temperature	T <sub>0</sub>	25°C±5°C
Temperature Coefficient	Κ	-0.03 +/- 0.01ppm/°C <sup>2</sup> Typical
Load Capacitance	CL	7.0 pF, 9.0 pF, 12.5 pF <sup>(1)</sup>
Equivalent Series Resistance	Rs	90ΚΩ max
Shunt Capacitance	C <sub>0</sub>	1.3pF typical
Motional Capacitance	C1	6.5fF typical
Drive Level	DL	0.5µ₩ max.
Operating Temperature Range		-40 to +85°C
Storage Temperature Range		-55 to +125°C
Reflow Temperature		260°C max, 10 Seconds

Note:

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

#### **Part Ordering Information:**



# **Tuning Fork Quartz Crystals**

 $1.2 \pm 0.1$ 

4

¥

0.6 Max.



A product Line of Diodes Incorporated PERICOM 69 Series Quartz Crystal 32.768 kHz SMD Crystal | 2.0 x 1.2mm

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





#### **Pin Functions:**

Pin	Function
1	Xtal
2	Xtal





#### **Typical Temperature Characteristic:**



## Tuning Fork Quartz Crystals G9



# A product Line of Diodes Incorporated Dipercent Structure of Series Quartz Crystal 32.768 kHz SMD Crystal | 2.0 x 1.2mm

#### IMPORTANT NOTICE

DIODES INCORPORATED MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. Diodes Incorporated does not assume any liability arising out of the application or use of this document or any product described herein; neither does Diodes Incorporated convey any license under its patent or trademark rights, nor the rights of others. Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on Diodes Incorporated website, harmless against all damages.

Diodes Incorporated does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel.

Should Customers purchase or use Diodes Incorporated products for any unintended or unauthorized application, Customers shall indemnify and hold Diodes Incorporated and its representatives harmless against all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized application.

Products described herein may be covered by one or more United States, international or foreign patents pending. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks.

This document is written in English but may be translated into multiple languages for reference. Only the English version of this document is the final and determinative format released by Diodes Incorporated.

#### LIFE SUPPORT

Diodes Incorporated products are specifically not authorized for use as critical components in life support devices or systems without the express written approval of the Chief Executive Officer of Diodes Incorporated. As used herein:

A. Life support devices or systems are devices or systems which:

are intended to implant into the body, or

2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.

B. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or to affect its safety or effectiveness.

Customers represent that they have all necessary expertise in the safety and regulatory ramifications of their life support devices or systems, and acknowledge and agree that they are solely responsible for all legal, regulatory and safety-related requirements concerning their products and any use of Diodes Incorporated products in such safety-critical, life support devices or systems, notwithstanding any devices- or systems-related information or support that may be provided by Diodes Incorporated products. Further, Customers must fully indemnify Diodes Incorporated and its representatives against any damages arising out of the use of Diodes Incorporated products in such safety-critical, life support devices or systems.

Copyright © 2016, Diodes Incorporated www.diodes.com