**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; 12mm tape; 3000 units per reel
- Pb-free and RoHS/Green Compliant

**Product Description**
The G8 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:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Frequency</td>
<td>f</td>
</tr>
<tr>
<td>Frequency Tolerance at 25°C</td>
<td>±20ppm, ±10ppm</td>
</tr>
<tr>
<td>Turnover Temperature</td>
<td>T₀</td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>K</td>
</tr>
<tr>
<td>Load Capacitance</td>
<td>Cₗ</td>
</tr>
<tr>
<td>Equivalent Series Resistance</td>
<td>Rₛ</td>
</tr>
<tr>
<td>Shunt Capacitance</td>
<td>Cₒ</td>
</tr>
<tr>
<td>Motional Capacitance</td>
<td>C₁</td>
</tr>
<tr>
<td>Drive Level</td>
<td>DL</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to +85°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-55 to +125°C</td>
</tr>
<tr>
<td>Reflow Temperature</td>
<td>260°C max, 10 Seconds</td>
</tr>
</tbody>
</table>

**Part Ordering Information:**

```
G8  327  X  YYY
```

- **Product Family**
- **Frequency Code**
- **YYY** = Specification Code

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

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G8 SERIES
Document Number DS40318 Rev 2-2

December 2018
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**Typical Temperature Characteristic:**

Frequency Deviation at Temperature $T$

$$\frac{\Delta f}{f} = K(T_0 - T)^2$$

**Pin Functions:**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Xtal</td>
</tr>
<tr>
<td>2</td>
<td>Xtal</td>
</tr>
</tbody>
</table>
Tuning Fork Quartz Crystals
G8 Series Quartz Crystal
32.768 kHz SMD Crystal | 3.2 x 1.5mm

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