

**VCTCXO** clipped sine wave

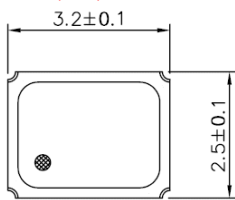
SMD-version +1.8 / +2.8 / +3.3 V

Voltage Controlled Temperature Compensated Crystal Oscillator

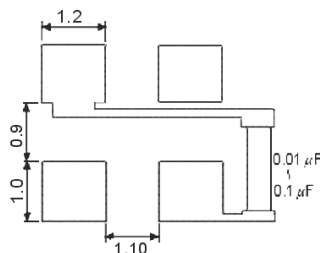
|   |   |   |
|---|---|---|
| part no.                                | 12.xxxxx  |   |
| model                                   | KXO-84  |   |
| frequency range                         | 10.0 ~ 40.0 MHz*  |   |
| initial frequency tolerance max.        | ±1.5 ppm  |   |
| frequency stability                     | vs. temp.range  | ±2.5 ppm over -30°C ~ +75°C (referred to +25°C) |
|   | vs. input voltage   | ±0.3 ppm at V <sub>DD</sub> ±5 %                |
|   | vs. load max.   | ±0.2 ppm  |
|   | vs. aging max.  | ±1 ppm / year at +25°C                          |
| output                                  | load  | 10k Ohm ±10 % // 10 pF ±10 %                    |
|   | voltage min.  | 0.8 Vp-p at 10 k Ohm // 10 pF                   |
|   | waveform  | clipped sine wave                               |
| operating temperature range             | -30°C ~ +75°C   |   |
| storage temperature                     | -40°C ~ +85°C   |   |
| input voltage V <sub>DD</sub>           | +1.8 V DC ±5 %, +2.8 V DC ±5 % or +3.3 V DC ±5 %  |   |
| input current max.                      | 1.5 mA (no load)  |   |
| start-up time max.                      | 3 ms  |   |
| harmonics max.                          | -5.0 dBc  |   |
| frequency control voltage (VC)          | 1.8 V (0.9±0.9 V DC), +2.8 V or +3.3 V (½ VDD ±1 V DC)  |   |
| frequency adjustment (pullability) min. | ±12 ppm   |   |
| phase noise max.                        | -75 dBc/Hz at 10 Hz<br>-105 dBc/Hz at 100 Hz<br>-125 dBc/Hz at 1 kHz<br>-145 dBc/Hz at 10 kHz<br>-150 dBc/Hz at 100 kHz<br>-150 dBc/Hz at 1 MHz |   |
| contents of reel                        | 1000 pcs.   |   |

\* Standard frequencies: 12.80, 12.2880, 16.3690, 16.80, 19.20, 20.00, 26.00, 27.00, 30.00, 32.00, 38.40 and 40.00

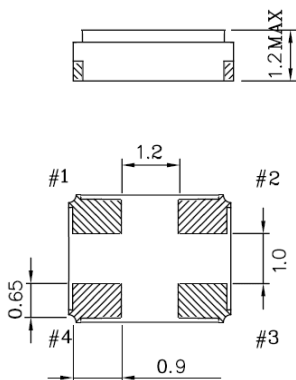
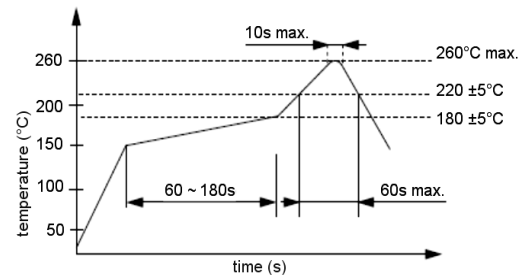
**Dimensions (mm):**



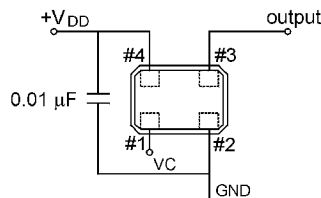
**Suggested soldering pad:**



**Reflow soldering condition:**



**Test circuit:**



| Pin | Connection      |
|-----|-----------------|
| 1   | VC              |
| 2   | GND             |
| 3   | OUTPUT          |
| 4   | V <sub>DD</sub> |

**Tape specification:**

