

Temperature Compensated Crystal Oscillator (TCXO)

**TCO-9133 Series****0.06cc VC-TCXO****Features**

- Ultra miniature size : 7.0(W) X 5.2(D) X 1.7(H)mm
- Surface mounting is possible
- Low SSB phase noise (-140dBc/Hz @ 1kHz)

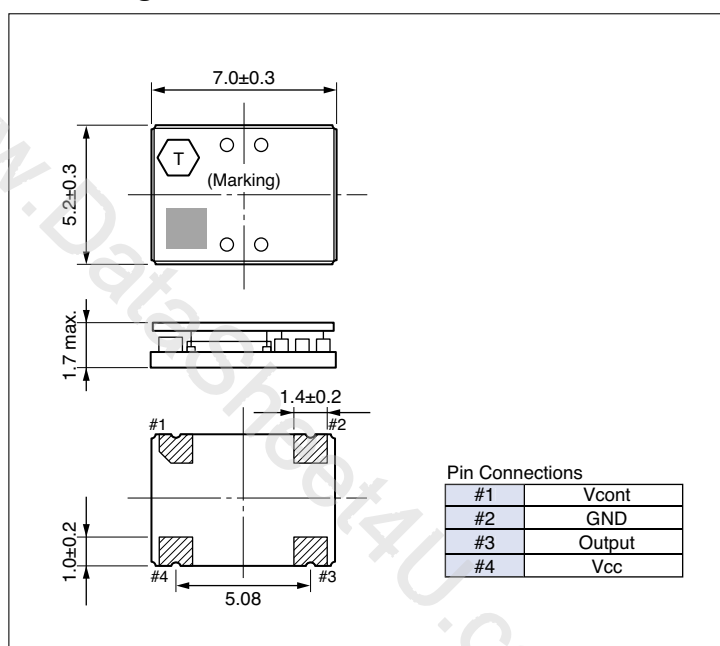
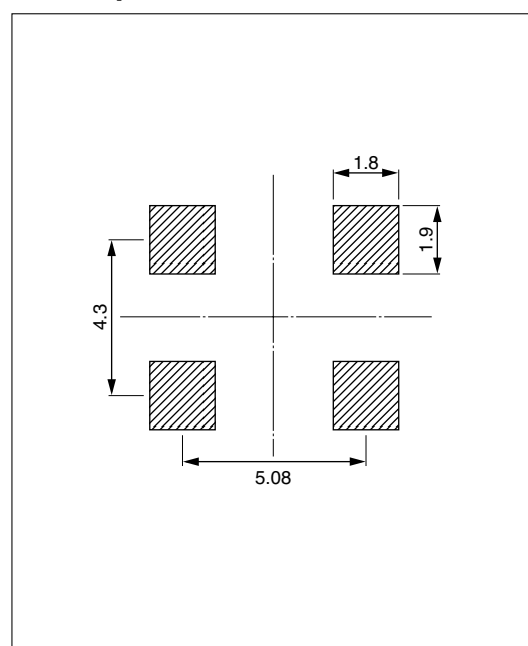
Application

- Personal Cellular Phone
(GSM, CDMA, TDMA)

Specifications

Type	TCO-9133
Frequency	13 to 26 MHz
Supply voltage	+3 V $\pm 5\%$
Supply current	2.0 mA max.
Output level	0.8 Vp-p min. (DC-cut, clipped sinewave) 10 k Ω // 10 pF
Stability vs Temperature	± 2.5 ppm max. / -30°C to $+75^\circ\text{C}$
Stability vs Supply voltage	± 0.3 ppm max. / +3 V $\pm 5\%$
Stability vs Load	± 0.2 ppm max. / (Load: 10 k $\Omega \pm 1$ k Ω // 10 pF ± 1 pF)
Frequency tolerance	± 2.5 ppm max. / $+25^\circ\text{C} \pm 2^\circ\text{C}$, after reflow
Aging	± 1.0 ppm max. / year
Frequency control range	± 8.0 ppm min. / +1.5 V ± 1.0 V

note) The above specifications are our standard. Upon request we offer proposal specifications separately.

Package Outlines [Dimensions in mm]**Footprint [Dimensions in mm]**

(2001.10.)