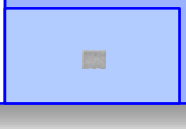
VC-TCXO
MINIATURE SIZE LOW PROFILE
TG - 5021CE-05A

- Frequency range : 19.2 MHz
- Supply voltage : 2.8 V Typ.
- Frequency / temperature characteristics: ±1.5 × 10^{-6} Max.
- External dimensions : 3.2 × 2.5 × 0.9 mm
- Applications : Cellular phone(CDMA , WCDMA)
- Features : Low phase noise

Pb Free RoHS Compliant

Product Number (Please contact us)
X1G003821000500

Actual size



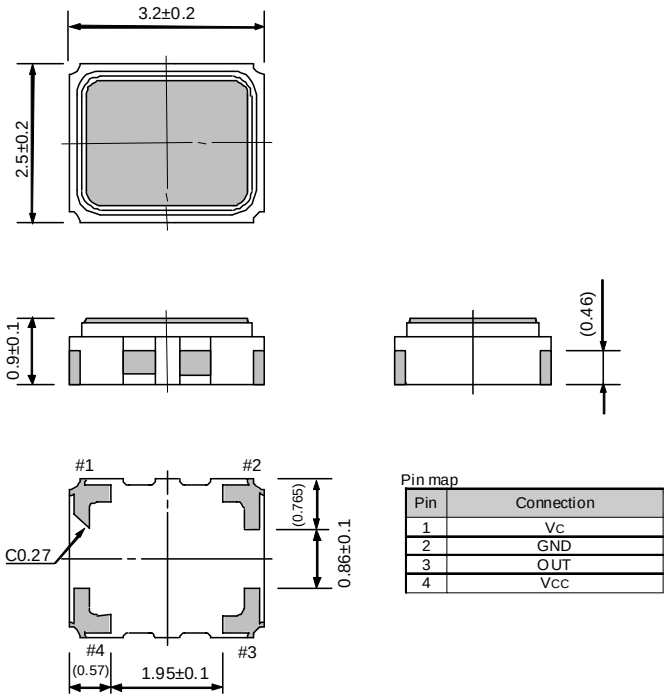
Note: The marking is different from the actual one

Specifications (characteristics)

Item	Symbol	Specifications VC-TCXO	Conditions / Remarks
Output frequency range	f_0	19.200 MHz	
Supply voltage	Vcc	2.8 V±5 %	
Storage temperature	T_stg	-40 °C to +85 °C	Store as bare product.
Operating temperature	T_use	-30 °C to +85 °C	
Frequency tolerance	f_tol	±2.0 ×10^{-6} Max.	After reflow, +25 °C
Frequency / temperature characteristics	fo-Tc	±1.5 × 10^{-6} Max.	-30 °C to +85 °C
Frequency / load coefficient	fo-Load	±0.2 × 10^{-6} Max.	10 kΩ // 10 pF ±10 %
Frequency / voltage coefficient	fo-Vcc	±0.2 ×10^{-6} Max.	2.8 V±5 %
Frequency aging	f_age	±1.0 ×10^{-6} Max.	+25 °C, First year
Current consumption	Icc	1.5 mA Max.	Vcc=2.8 V, 10 kΩ// 10 pF
Input resistance	Rin	500 kΩ Min.	Vc- GND (DC)
Frequency control range	f_cont	±7.8 × 10^{-6} to ±12.0 ×10^{-6}	Vc=1.4 V ±1.0 V
Frequency change polarity	—	Positive polarity	
Symmetry	SYM	40 % to 60 %	GND level (DC cut)
Output voltage	Vpp	0.8 V Min.	Peak to peak
Load resistance	Load_R	10 kΩ	DC cut capacitor = 0.01 µF
Load capacitance	Load_C	10 pF	

Note: Please contact us for inquiries about specifications other than the above.

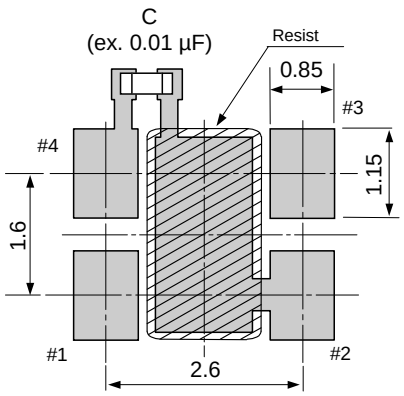
External dimensions (Unit:mm)



Pin map

Pin	Connection
1	Vc
2	GND
3	OUT
4	Vcc

Footprint (Recommended) (Unit:mm)



To maintain stable operation, provide a 0.01uF to 0.1uF by-pass capacitor at a location as near as possible to the power source terminal of the crystal product (between Vcc - GND).
The above connection is one example.

PROMOTION OF ENVIRONMENTAL MANAGEMENT SYSTEM CONFORMING TO INTERNATIONAL STANDARDS

At Seiko Epson, all environmental initiatives operate under the Plan-Do-Check-Action (PDCA) cycle designed to achieve continuous improvements. The environmental management system (EMS) operates under the ISO 14001 environmental management standard.

All of our major manufacturing and non-manufacturing sites, in Japan and overseas, completed the acquisition of ISO 14001 certification.

ISO 14000 is an international standard for environmental management that was established by the International Standards Organization in 1996 against the background of growing concern regarding global warming, destruction of the ozone layer, and global deforestation.

WORKING FOR HIGH QUALITY

In order provide high quality and reliable products and services than meet customer needs,

Seiko Epson made early efforts towards obtaining ISO9000 series certification and has acquired ISO9001 for all business establishments in Japan and abroad. We have also acquired ISO/TS 16949 certification that is requested strongly by major automotive manufacturers as standard.

ISO/TS16949 is the international standard that added the sector-specific supplemental requirements for automotive industry based on ISO9001.

►Explanation of the mark that are using it for the catalog

Pb Free	►Pb free.
RoHS Compliant	►Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)
For Automotive	►The products have been designed for high reliability applications such as Automotive.

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