



TCXO/VC-TCXO HIGH STABILITY



Product Number
TG-5006CJ : X1G004131xxx00
TG-5006CG : X1G004211xxx00
TG-5006CE : X1G004201xxx00

TG-5006CJ / CG / CE

- Frequency range : 13 to 52MHz(TG-5006CJ/CG)
13 to 20MHz, 26 to 40MHz(TG-5006CE)
- Supply voltage : 1.8 V Typ./ 2.8 V Typ./ 3.0 V Typ./ 3.3 V Typ.
- Frequency / temperature characteristics : $\pm 0.5 \times 10^{-6}$ Max or $\pm 2.0 \times 10^{-6}$ Max.
- Applications : GPS, RF,
Wireless communication devices
(CDMA, WCDMA, LTE, WiMAX, other)
- Features : High stability



TG-5006CJ
(2.0 × 1.6 × 0.73 mm)



TG-5006CG
(2.5 × 2.0 × 0.8 mm)



TG-5006CE
(3.2 × 2.5 × 0.9 mm)

Specifications (characteristics)

Item	Symbol	VC-TCXO	TCXO	Conditions / Remarks
Output frequency range	f _o	16.367667 MHz, 16.368 MHz, 16.369 MHz, 19.2 MHz, 26 MHz and 38.4 MHz		Standard frequency
		13.000 MHz to 52.000 MHz		TG-5006CJ/TG5006CG
		13.000 MHz to 20.000 MHz,26.000 MHz to 40.000 MHz		TG-5006CE
Supply voltage	V _{CC}	1.8 V ±0.1 V / 2.8 V ±5% / 3.0 V ±5% / 3.3 V ±5%		Supply voltage range : 1.7 V to 3.465 V
Storage temperature range	T _{stg}	-40 °C to +90 °C		Storage as single product.
Operating temperature range	T _{use}	-30 °C to +85 °C		
Frequency tolerance	f _{tol}	±2.0 ×10 ⁻⁶ Max.		After reflow, +25 °C
Frequency/temperature characteristics	f ₀ -T _c	±0.5 × 10 ⁻⁶ Max. / -30 °C to +85 °C		High stability version for GPS
		±2.0 × 10 ⁻⁶ Max. / -30 °C to +85 °C		Standard stability version
Frequency/load coefficient	f ₀ -Load	±0.2 × 10 ⁻⁶ Max.		10 kΩ // 10 pF ±10 %
Frequency/voltage coefficient	f ₀ -V _{CC}	±0.2 × 10 ⁻⁶ Max.		V _{CC} ±5%
Frequency aging	f _{age}	±1.0 ×10 ⁻⁶ Max.		+25 °C , First year,13 MHz≤f _o ≤40 MHz
		±1.5 ×10 ⁻⁶ Max.		+25 °C , First year,40 MHz<f _o ≤52 MHz
Current consumption	I _{CC}	1.5 mA Max.		13 MHz≤f _o ≤26 MHz
		2.0 mA Max.		26 MHz<f _o ≤52 MHz
Input impedance	Z _{in}	500 kΩ Min.	—	V _c - GND (DC)
Frequency control range	f _{cont}	±8.0 × 10 ⁻⁶ to ±15.0 × 10 ⁻⁶	—	V _c =0.9 V ±0.6 V (V _{CC} =1.8 V) or V _c =1.4 V ±1.0 V (V _{CC} =2.8 V) or V _c =1.5 V ±1.0 V (V _{CC} =3.0 V) or V _c =1.65 V ±1.0 V (V _{CC} =3.3 V)
Frequency change polarity	f _{cp}	Positive polarity	—	
Symmetry	SYM	40 % to 60 %		GND level (DC cut)
Output voltage	V _{PP}	0.8 V Min.		Peak to Peak
Start-up time	t _{str}	2.0 ms Max.		T=0 at 90% V _{CC}
Output load	Load _R	10 kΩ		DC cut capacitor = 0.01 μF
	Load _C	10 pF		

* Note : Please contact us for requirements not listed in this specification.

Product Name TG-5006 CJ-*** 19.200000MHz

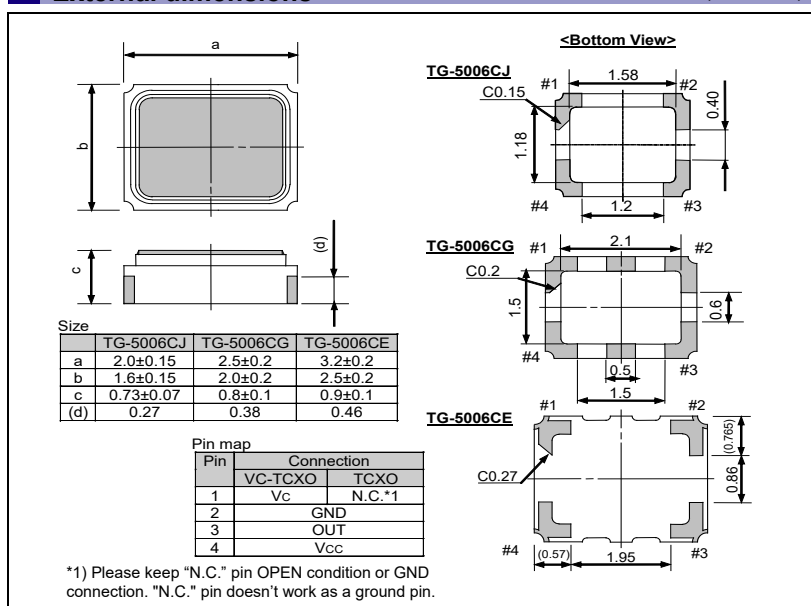
(Standard form)

① Model ② Package type ③ Spec segment (Please contact us) ④ Frequency

① Model ② Package type ③ Spec segment (Please contact us) ④ Frequency

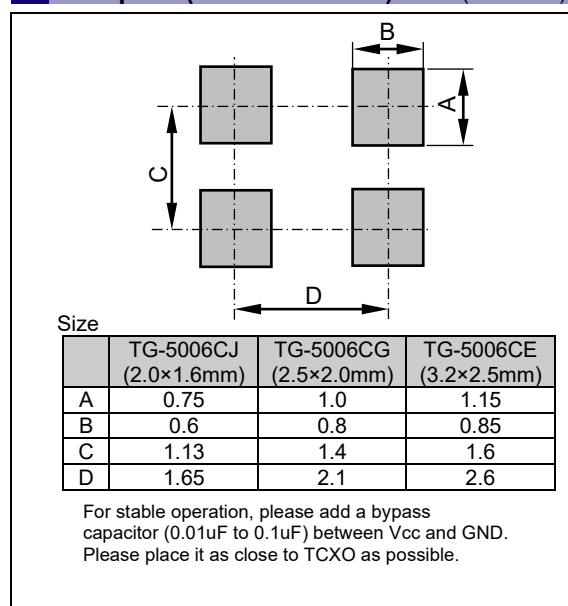
External dimensions

(Unit: mm)



Footprint (Recommended)

(Unit: mm)



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 IATF 16949 certification that is requested strongly by major automotive manufacturers as standard.

IATF 16949 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.
	► 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.)
	► Designed for automotive applications such as Car Multimedia, Body Electronics, Remote Keyless Entry etc.
	► Designed for automotive applications related to driving safety (Engine Control Unit, Air Bag, ESC etc).

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