



TCXO/VC-TCXO HIGH STABILITY

NEW



Product Number (Please contact us)
X1G004691xxxx00

TG2016SBN

- Output frequency : 13 MHz to 52MHz
- 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.
- External dimensions: 2.0 x 1.6 x 0.73 mm
- Applications : GPS, RF
Wireless communication devices
(CDMA, WCDMA, LTE, WiMAX, other)
- Features : Wide supply voltage (1.7 to 3.63V)
Low noise



Actual size



Specifications (characteristics)

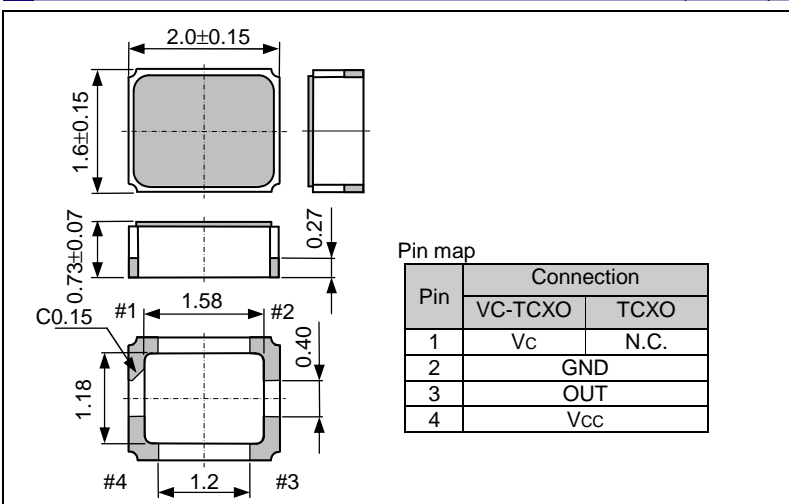
Item	Symbol	VC-TCXO	TCXO	Conditions / Remarks
Output frequency range	f _o	13 MHz to 52MHz		Standard frequency
		13 MHz, 16.367667 MHz, 16.368 MHz, 16.369 MHz, 16.8 MHz, 19.2 MHz, 26 MHz, 27MHz, 30 MHz, 32 MHz, 33.6MHz, 38.4 MHz, 40 MHz and 52 MHz		
Supply voltage	V _{cc}	1.8 V \pm 0.1 V / 2.8 V \pm 5 % / 3.0 V \pm 5 % / 3.3 V \pm 5 %		Supply voltage range :1.7 V to 3.63 V
Storage temperature	T _{stg}	-40 °C to +90 °C		Storage as single product.
Operating temperature	T _{use}	-40 °C to +85 °C		
Frequency tolerance	f _{tol}	$\pm 2.0 \times 10^{-6}$ Max.		After reflow, +25 °C
Frequency/temperature characteristics	f _o -Tc	$\pm 0.5 \times 10^{-6}$ Max. / -30 °C to +85 °C		High stability version (for GPS)
		$\pm 2.0 \times 10^{-6}$ Max. / -30 °C to +85 °C		Standard stability version (for RF)
		$\pm 0.5 \times 10^{-6}$ Max. / -40 °C to +85 °C (Option)		Customized product
Frequency/load coefficient	f _o -Load	$\pm 0.2 \times 10^{-6}$ Max.		10 k Ω // 10 pF \pm 10 %
Frequency/voltage coefficient	f _o -V _{cc}	$\pm 0.2 \times 10^{-6}$ Max.		V _{cc} \pm 5 %
Frequency aging	f _{age}	$\pm 1.0 \times 10^{-6}$ Max.		+25 °C, First year, 13 MHz \leq f _o \leq 40 MHz
		$\pm 1.5 \times 10^{-6}$ Max.		+25 °C, First year, 40 MHz < f _o \leq 52 MHz
Current consumption	I _{cc}	1.5 mA Max.		13 MHz \leq f _o \leq 26 MHz
		2.0 mA Max		26MHz < f _o
Input resistance	R _{in}	500 k Ω Min.	-	V _c - GND (DC)
Frequency control range	f _{cont}	$\pm 8.0 \times 10^{-6}$ to $\pm 15.0 \times 10^{-6}$	-	V _c =0.9 V \pm 0.6 V (V _{cc} =1.8 V) or V _c =1.4 V \pm 1.0 V (V _{cc} =2.8 V) or V _c =1.5 V \pm 1.0 V (V _{cc} =3.0 V) or V _c =1.65 V \pm 1.0 V (V _{cc} =3.3 V)
Frequency change polarity	-	Positive polarity		-
Symmetry	SYM	40 % to 60 %		GND level (DC cut)
Output voltage	V _{PP}	0.8 V Min.		Peak to Peak
Output load condition	Load _R	10 k Ω		DC cut capacitor = 0.01 μ F
	Load _C	10 pF		

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

Product Name **TG2016 SBN 26.000000MHz T C N N N A**
 (Standard form) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
 ① Model ② Output (S: Clipped sine wave) ③ Frequency ④ Supply voltage (T: 1.8 to 3.3 V)
 ⑤ Frequency / temperature characteristics (C: $\pm 0.5 \times 10^{-6}$ Max.) ⑥ Operating temperature (N: -30 °C to +85 °C)
 ⑦ OE function (N: Non) ⑧ V_c function(N: Non) ⑨ Internal identification code ("A" is default)

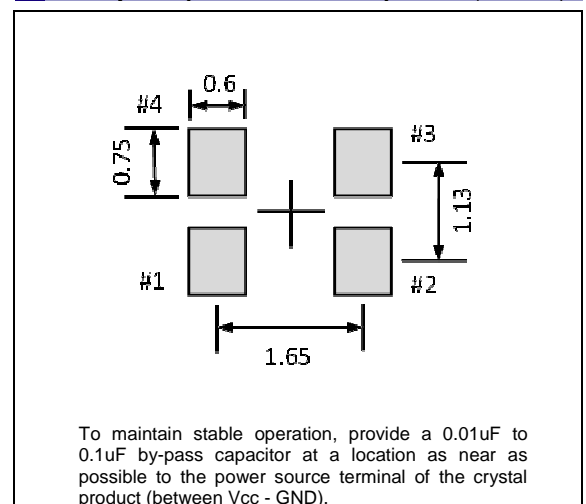
External dimensions

(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.

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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.

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► 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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