

TCXO / VC-TCXO
ULTRA HIGH STABILITY
TG5032CAN
TG5032SAN

NEW



Product Number (please contact us)
 TG5032CAN : X1G004431xxxx00
 TG5032SAN : X1G004441xxxx00

Feature

- Frequency range : 10 MHz to 40 MHz
- Supply voltage : 3.3 V
- Frequency / temperature characteristics : $\pm 0.1 \times 10^{-6}$ Max. *1
- External dimensions : $5.0 \times 3.2 \times 1.45$ mm (10-pins)
- Applications : FemtoCell
- Features : Ultra high stability



Actual size



Specifications (characteristics)

Item	Symbol	TG5032CAN (CMOS)		TG5032SAN (Clipped sine wave)		Conditions / Remarks
		VC-TCXO	TCXO	VC-TCXO	TCXO	
Output frequency range	f_o	10 MHz to 40 MHz 19.2, 20, 26, 30.72 MHz				Standard frequency
Supply voltage	V_{CC}	3.3 V \pm 0.165V (Supply voltage range :2.7 V to 5.5 V)				
Storage temperature	T_{stg}	-40 °C to +90 °C				Storage as single product
Operating temperature	T_{use}	0 °C to +70 °C				
Frequency tolerance	f_{tol}	$\pm 2.0 \times 10^{-6}$ Max.				After reflow, +25 °C
Frequency/temperature characteristics*1	f_o -Tc	$\pm 0.1 \times 10^{-6}$ Max.				0 °C to +70 °C
Frequency/load coefficient	f_o -Load	$\pm 0.1 \times 10^{-6}$ Max.				Load ± 10 %
Frequency/voltage coefficient	f_o -Vcc	$\pm 0.1 \times 10^{-6}$ Max.				$V_{CC}=3.3 V \pm 0.165 V$
Frequency aging*2	f_{age}	$\pm 0.02 \times 10^{-6}$ Max. $\pm 1.0 \times 10^{-6}$ Max.				+25 °C, 24h +25 °C, First year
Current consumption	I_{CC}	5.0 mA Max. 6.0 mA Max.		5.0 mA Max.		10 MHz $\leq f_o \leq 26$ MHz 26 MHz < $f_o \leq 40$ MHz
Input resistance	R_{in}	100 k Ω Min.	—	100 k Ω Min.	—	Vc- GND (DC)
Frequency control range	f_{cont}	$\pm 5 \times 10^{-6}$ to $\pm 10 \times 10^{-6}$	—	$\pm 5 \times 10^{-6}$ to $\pm 10 \times 10^{-6}$	—	$V_c=1.5 V \pm 1.0 V$
Frequency change polarity	—	Positive polarity		Positive polarity		
Symmetry	SYM	45 % to 55 %		—		GND level (DC cut)
Output voltage	V_{OH}	90 % V_{CC} Min.		—		
	V_{OL}	10 % V_{CC} Max.		—		
Output level	V_{PP}	—		0.8 V Min.		Peak to Peak
Output load condition	Load	15 pF Max.		10 k Ω /10 pF		

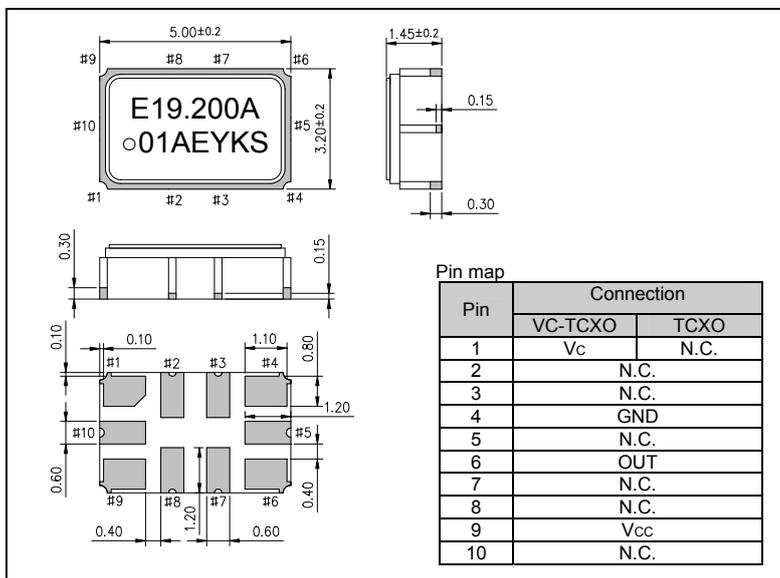
* Note : Please contact us for requirements not listed in this specification. *1 Based on frequency at $(f_{max}+f_{min})/2$. *2 After 48 hours operating

Product Name **TG5032CAN 19.200000MHz C A A N A A**
 (Standard form) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- ① Model ② Output (C: CMOS, S: Clipped sine wave) ③ Frequency ④ Supply voltage (C: 3.3 V Typ.)
- ⑤ Frequency / temperature characteristics (A: $\pm 0.1 \times 10^{-6}$ Max.) ⑥ Operating temperature (A: 0 °C to +70 °C)
- ⑦ Standby function (N: Non) ⑧ Vc function (A: VC-TCXO, N: Non) ⑨ Internal identification code ("A" is default)

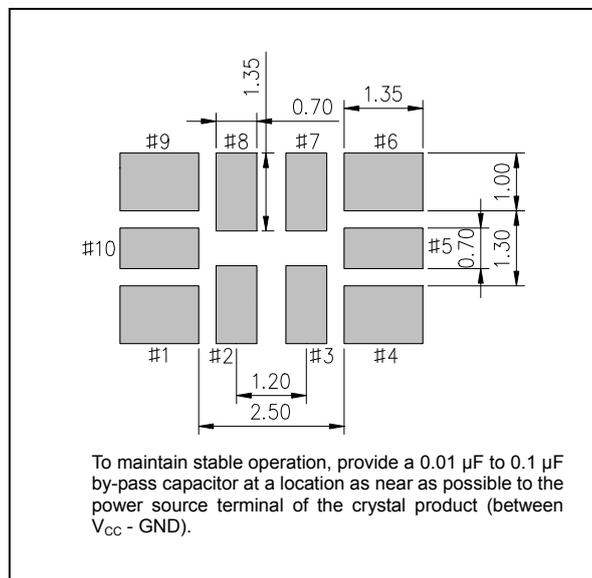
External dimensions

(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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	► 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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