TCXO/VC-TCXO
HIGH STABILITY

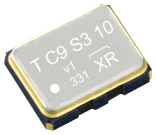
Pb Free RoHS Compliant

Product Number
TG-5006CJ : X1G004131xxxx00
TG-5006CG : X1G004211xxxx00
TG-5006CE : X1G004201xxxx00

TG-5006CJ / CG / CE


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)

- •Frequency range : 13 to 52MH(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
  : ±0.5× 10^{-6} Max or ±2.0 × 10^{-6} Max.
- •Applications : GPS, RF,
  Wireless communication devices
  (CDMA, WCDMA, LTE, WiMAX, other)
- •Features : High stability

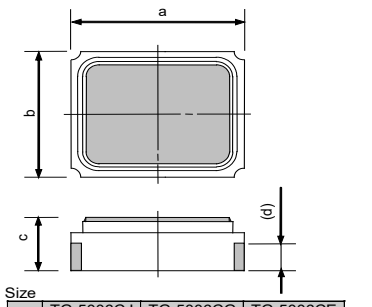
Specifications (characteristics)

Item	Symbol	VC-TCXO	TCXO	Conditions / Remarks
Output frequency range	f0	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	Vcc	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	f0-Tc	±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	f0-Load	±0.2 × 10^{-6} Max.		10 kΩ // 10 pF ±10 %
Frequency/voltage coefficient	f0-Vcc	±0.2 ×10^{-6} Max.		Vcc ±5%
Frequency aging	f_age	±1.0 ×10^{-6} Max.		+25 °C , First year,13 MHz≦f0≦40 MHz
		±1.5 ×10^{-6} Max.		+25 °C , First year,40 MHz＜f0≦52 MHz
Current consumption	Icc	1.5 mA Max.		13 MHz≦f0≦26 MHz
		2.0 mA Max.		26 MHz＜f0≦52 MHz
Input impedance	Zin	500 kΩ Min.	—	Vc- GND (DC)
Frequency control range	f_cont	±8.0 × 10^{-6} to ±15.0 × 10^{-6}	—	Vc =0.9 V ±0.6 V (Vcc =1.8 V) or Vc =1.4 V ±1.0 V (Vcc =2.8 V) or Vc =1.5 V ±1.0 V (Vcc =3.0 V) or Vc =1.65 V ±1.0 V (Vcc =3.3 V)
Frequency change polarity	f_cp	Positive polarity	—	
Symmetry	SYM	40 % to 60 %		GND level (DC cut)
Output voltage	Vpp	0.8 V Min.		Peak to Peak
Start-up time	t_str	2.0 ms Max.		T=0 at 90% Vcc
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 (Standard form): TG-5006 CJ-*** 19.200000MHz
① ② ③ ④
①Model ②Package type ③Spec segment (Please contact us) ④Frequency

External dimensions (Unit: mm)



Size

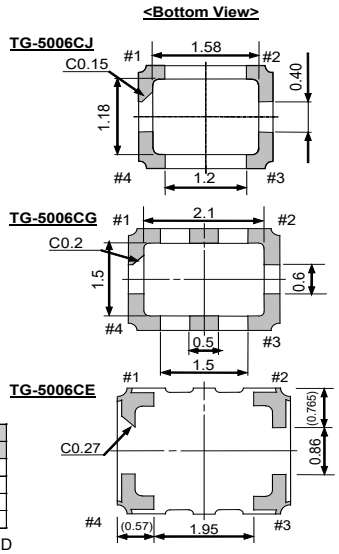
	TG-5006CJ	TG-5006CG	TG-5006CE
a	2.0±0.15	2.5±0.2	3.2±0.2
b	1.6±0.15	2.0±0.2	2.5±0.2
c	0.73±0.07	0.8±0.1	0.9±0.1
(d)	0.27	0.38	0.46

Pin map

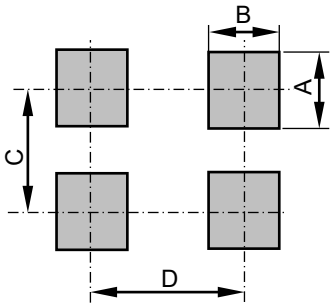
Pin	Connection	
	VC-TCXO	TCXO
1	Vc	N.C.*1
2	GND	
3	OUT	
4	Vcc	

*1) Please keep "N.C." pin OPEN condition or GND connection. "N.C." pin doesn't work as a ground pin.

<Bottom View>



Footprint (Recommended) (Unit: mm)



Size

	TG-5006CJ (2.0×1.6mm)	TG-5006CG (2.5×2.0mm)	TG-5006CE (3.2×2.5mm)
A	0.75	1.0	1.15
B	0.6	0.8	0.85
C	1.13	1.4	1.6
D	1.65	2.1	2.6

For stable operation, please add a bypass capacitor (0.01uF to 0.1uF) between Vcc and GND. Please place it as close to TCXO as possible.

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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 general equipment.
	►Designed for automotive applications related to driving and safety.

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