

VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO)
OUTPUT : CMOS

VG2520CAN
VG7050CAN

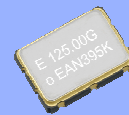
- Frequency range : 30.72 MHz
- Supply voltage : 3.3 V
- Absolute pull range : $\pm 50 \times 10^{-6}$ Min.
- Output : CMOS



Product Number (please contact us)
VG2520CAN: X1G004401xxxx00
VG7050CAN: X1G004531xxxx00



VG2520CAN
(2.5 × 2.0 × 0.7 mm)



VG7050CAN
(7.0 × 5.0 × 1.4 mm)

Actual size

VG2520CAN

VG7050CAN

Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Output frequency range	f_o	30.72 MHz	Please contact us about available frequencies. (1.25 MHz to 80 MHz)
Supply voltage	Vcc	3.3 V ± 0.165 V	
Storage temperature range	T_stg	-40 °C to +125 °C	Storage as single product
Operating temperature range	T_use	-40 °C to +85 °C	
Current consumption	Icc	15 mA Max.	CL=15pF
Frequency tolerance *1	f_tol	$\pm 50 \times 10^{-6}$ Max.	
Frequency control range	F_cont	$\pm 100 \times 10^{-6}$ Min.	Vc= 1.65 V ± 1.65 V
Absolute pull range *2	APR	$\pm 50 \times 10^{-6}$ Min.	Vc= 1.65 V ± 1.65 V
Modulation band width	BW	10 kHz Min.	± 3 dB (refer to response at 1kHz)
Input resistance	Rin	10 M Ω Min.	DC level
Frequency change polarity	—	Positive	Vc= 1.65 V ± 1.65 V
Symmetry	SYM	45 % to 55 %	50 % Vcc level
Output voltage	VoH	90 % Vcc Min.	
	VoL	10 % Vcc Max.	
Output load condition	L_CMOS	15 pF Max.	CMOS
Rise/Fall times	Tr/Tf	5 ns Max.	at 20 % to 80 % Vcc level
Start-up time	T_str	10ms Max.	t=0 at 90 % Vcc

*1 Frequency tolerance includes initial frequency tolerance, temperature variation, supply voltage variation, reflow drift, and aging (+25°C, 10 years).

*2 Absolute pull range = Frequency control range - Frequency tolerance

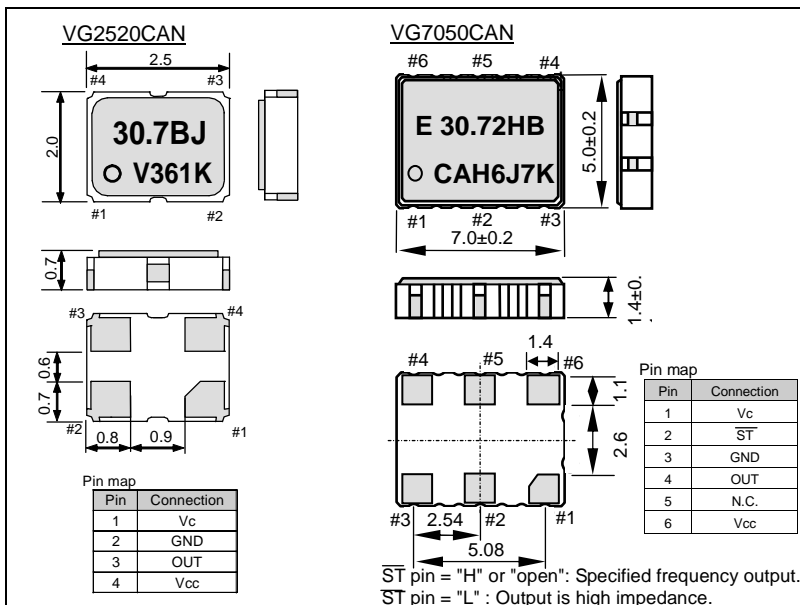
Please keep Vc pin open or ground while powering up Vcc.

Product name VG2520 CAN 30.720000 MHz C J G N B B
(Standard form) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Model ② Output (C: CMOS) ③ Frequency
④ Supply voltage (C: 3.3 V Typ.) ⑤ Frequency tolerance (J: $\pm 50 \times 10^{-6}$ Max.)
⑥ Operating temperature (G: -40 to +85°C) ⑦ OE Function (N: Non, S: Standby)
⑧ Absolute Pull Range (B: $\pm 50 \times 10^{-6}$ Min.) ⑨ Internal identification code

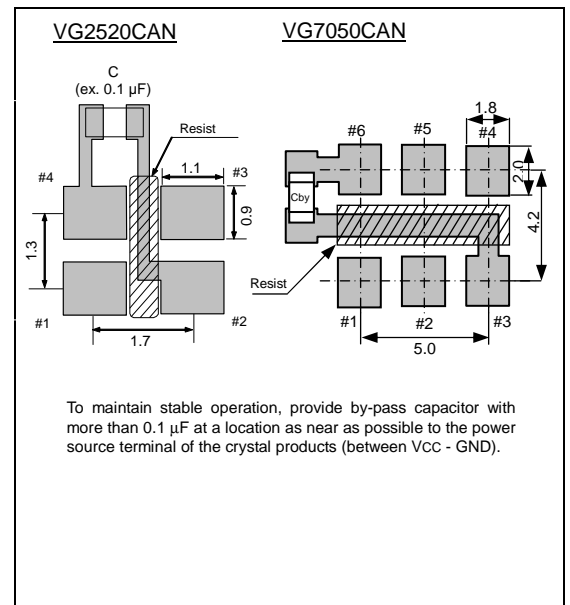
External dimensions

(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 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.
	► 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).

Notice

- This material is subject to change without notice.
- Any part of this material may not be reproduced or duplicated in any form or any means without the written permission of Seiko Epson.
- The information about applied data, circuitry, software, usage, etc. written in this material is intended for reference only. Seiko Epson does not assume any liability for the occurrence of customer damage or infringing on any patent or copyright of a third party. This material does not authorize the licensing for any patent or intellectual copyrights.
- When exporting the products or technology described in this material, you should comply with the applicable export control laws and regulations and follow the procedures required by such laws and regulations.
- You are requested not to use the products (and any technical information furnished, if any) for the development and/or manufacture of weapon of mass destruction or for other military purposes. You are also requested that you would not make the products available to any third party who may use the products for such prohibited purposes.
- These products are intended for general use in electronic equipment. When using them in specific applications that require extremely high reliability, such as the applications stated below, you must obtain permission from Seiko Epson in advance.
/ Space equipment (artificial satellites, rockets, etc.) / Transportation vehicles and related (automobiles, aircraft, trains, vessels, etc.) / Medical instruments to sustain life / Submarine transmitters / Power stations and related / Fire work equipment and security equipment / traffic control equipment / and others requiring equivalent reliability.
- All brands or product names mentioned herein are trademarks and/or registered trademarks of their respective.