CRYSTAL OSCILLATOR (SPXO)

OUTPUT : CMOS

Product Number
SG5032CCN: X1G004471xxxx00
SG7050CCN: X1G004501xxxx00

SG5032CCN
SG7050CCN

- Frequency range : 2.5 MHz to 50 MHz (Fundamental mode)
- Supply voltage : 5.0 V Typ.
- Function : Output enable (OE)
- Output : CMOS

SG5032CCN
(5.0 × 3.2 × 1.1 mm)

SG7050CCN
(7.0 × 5.0 × 1.3 mm)

Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Output frequency range	fo	2.5 MHz to 50 MHz	Please contact us about available frequencies.
Supply voltage	V_{CC}	H: 4.5 V to 5.5 V	
Storage temperature	T_stg	-40 °C to +125 °C	Storage as single product.
Operating temperature	T_use	B: -20 °C to +70 °C, G: -40 °C to +85 °C	
Frequency tolerance	f_tol	J: ±50 × 10^{-6}	-20 °C to +70 °C, -40 °C to +85 °C
Current consumption	I_{CC}	20 mA Max.	No load condition Maximum frequency.
Disable current	I_dis	10 mA Max.	OE = GND
Symmetry	SYM	40 % to 60 %	50 % V_{CC} level, L_CMOS ≤ 50 pF
Output voltage	V_{OH}	V_{CC} - 0.4 V Min.	I_{OH} = -8 mA
	V_{OL}	0.4 V Max.	I_{OL} = 16 mA
Output load condition	L_CMOS	50 pF Max.	
Input voltage	V_{IH}	80 % V_{CC} Min.	OE terminal
	V_{IL}	20 % V_{CC} Max.	
Rise time / Fall time	tr / tf	5 ns Max.	20 % V_{CC} to 80 % V_{CC} level, L_CMOS ≤ 50 pF
Start-up time	tOSC	4 ms Max.	t = 0 at 90 % V_{CC}
Frequency aging	f_age	±5 × 10^{-6} / year Max.	+25 °C, First year.

Product Name (Standard form) SG5032 C CN 25.000000MHz H J G A
① ② ③ ④⑤⑥⑦
①Model ②Output (C: CMOS) ③Frequency
④Supply voltage ⑤Frequency tolerance
⑥Operating temperature range ⑦Internal identification code (“A” is default)

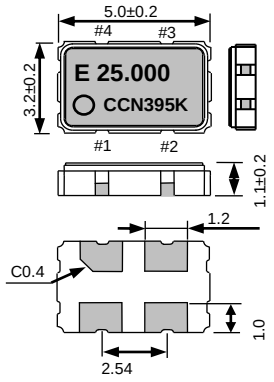
④Supply voltage	
H	5.0 V Typ.

⑤Frequency tolerance	
J	±50 × 10^{-6}

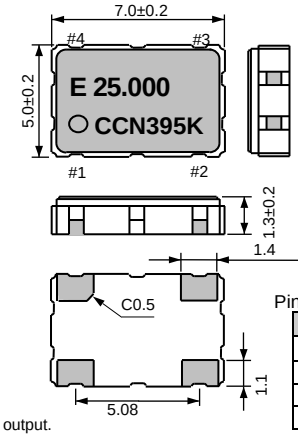
⑥Operating temperature range	
B	-20 °C to +70 °C
G	-40 °C to +85 °C

External dimensions (Unit:mm)

●SG5032 type



●SG7050 type



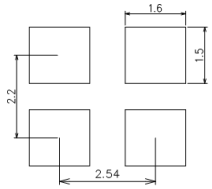
Pin map

Pin	Connection
1	OE
2	GND
3	OUT
4	V_{CC}

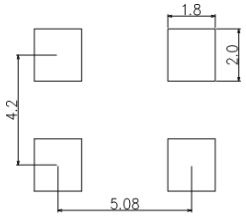
Note.
OE pin = "H" or "open" : Specified frequency output.
OE pin = "L" : Output is high impedance.

Footprint (Recommended) (Unit:mm)

●SG5032 type



●SG7050 type



To maintain stable operation, provide a 0.01 µF to 0.1 µF by-pass capacitor at a location as near as possible to the power source terminal of the crystal product (between V_{CC} - GND).

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).