## CRYSTAL OSCILLATOR (SPXO) **OUTPUT: LV-PECL**

## SG3225 / 7050EEN

25 MHz to 200 MHz •Frequency range Supply voltage 2.5 V, 3.3 V LV-PECL Output

Function Output enable (OE) : Phase jitter 50 fs Typ.  $(f_0 = 156.25MHz)$ 

Operating temperature : -40 °C to +85 °C

-40 °C to +105 °C



#### Specifications (characteristics) Symbol Specifications Conditions / Remarks Please contact us for inquiries regarding available Output frequency range 25 MHz to 200 MHz frequencies Supply voltage Vcc $D: 2.5~V~\pm 0.125~V$ , $C: 3.3~V~\pm 0.165~V$ Storage temperature T\_stg -55 °C to +125 °C Store as bare product. Operating temperature T\_use G : -40 °C to +85 °C , H : -40 °C to +105 °C D: ±25 x 10<sup>-6</sup> Max. Includes initial tolerance, temperature change, (Not available H : -40 °C to +105 °C) Vcc change and 5 years aging(+25 °C) Includes initial tolerance, temperature change, $J : \pm 50 \times 10^{-6} \text{ Max.}$ Frequency tolerance f\_tol Vcc change and 10 years aging(+25 °C) Includes initial tolerance, temperature change, L: $\pm 100 \times 10^{-6} \text{ Max}$ Vcc change and 10 years aging(+25 °C) 75 mA Max. Current consumption lcc OE= Vcc, with output load Disable current I\_dis 25 mA Max. OE=GND 45 % to 55 % SYM Symmetry At outputs crossing point Vон Vcc-1.1 V Min Output voltage DC characteristics Vol Vcc-1.5 V Max Terminated to Vcc-2.0V Output load condition L\_ECL 50 Ω VIH 70 % Vcc Min. OE terminal Input voltage 30 % Vcc Max. VIL 300 ps Max. (Vcc : 3.3V) Tr / Tf 20% ~ 80% (Voн – Vol) Rise/Fall times 350 ps Max. (Vcc : 2.5V) Oscillation start up time t\_str 10 ms Max. Time at minimum supply voltage to be 0 s

#### Phase jitter

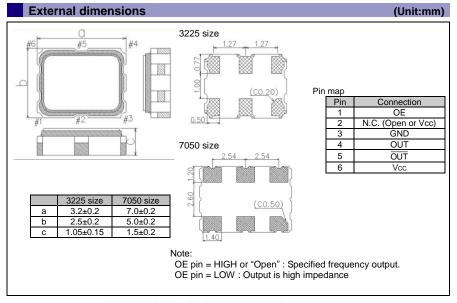
	100 MHz	125 MHz	156.25 MHz	200 MHz
Phase jitter Typ. [fs] (Offset frequency 12k to 20MHz)	75	60	50	40

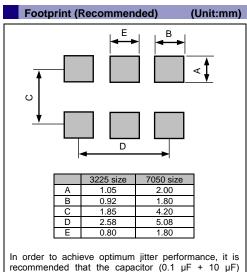
**Product Name** SG3225 EEN 156.250000MHz C D G A (5) 6: Not Available code DH) (Standard form) 4)(5)(6)(7)

①Model ②Output (E: LV-PECL) ③Frequency ④Supply voltage (C: 3.3 V Typ. D: 2.5 V Typ.)

⑤ Frequency tolerance (D: ±25 x 10<sup>-6</sup> Max. J: ±50 x 10<sup>-6</sup> Max. L: ±100 x 10<sup>-6</sup> Max.)

⑥Operating temperature (G:-40 to +85°C , H:-40 to +105°C) ①Internal identification code("A" is default)





between Vcc and GND pin should be placed as close to the Vcc pin as possible

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# 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,

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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.).

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