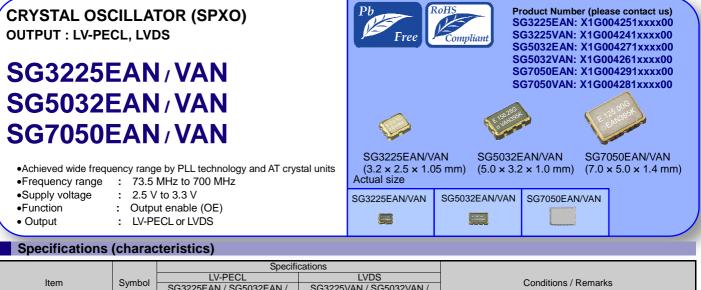
Crystal oscillator

SEIKO EPSON CORPORATION



Item	Item Symbol SG3225EAN / SG5032EAN / SG3225VAN / SG5032VAN / Condi SG7050EAN SG7050VAN				tions / Remarks	
Output frequency range	fo	73.5 MHz t	o 700 MHz	Please contact us about available frequencies.		
Supply voltage	Vcc	K: 2.5 V - 10 %	to 3.3 V + 10 %		•	
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: \pm 50 \times 10 ⁻⁶ , E: \pm 30	$0 \times 10^{-6}, \text{ C: } \pm 20 \times 10^{-6}$			
Current consumption	lcc	65 mA Max.	30 mA Max.	OE = Vcc, L_ECL = 50 Ω or L_LVDS = 100 Ω		
Disable current	I_dis	20 mÅ Max.		OE = GND		
Symmetry	SYM	45 % to 55 % At outputs crossing point				
Output voltage (LV-PECL)	Voh Vol	Vcc - 1.0 V to Vcc - 0.8 V Vcc - 1.78 V to Vcc - 1.62 V	-	DC characteristics		
Output voltage (LVDS)	VOD	-	250 mV to 450 mV	VOD1, VOD2		
	dVod	_	50 mV Max.	dVod = Vod1-Vod2		
	Vos	_	1.15 V to 1.35 V	Vos1, Vos2 DC characteristic		
	dVos	-	150 mV Max.	dVos = Vos1-Vos2		
Output load condition	L_ECL	50 Ω	-	Terminated to Vcc -2.0 V		
(ECL) / (LVDS)	L_LVDS	_	100 Ω	Connected between OUT to OUT		
Input voltage	Viн	70 % Vcc Min.		OE terminal		
	VIL	30 % Vcc Max.				
Rise time / Fall time	tr / tr	350 ps Max.	300 ps Max.	LV-PECL: Between 20 % ar LVDS: Between 20 % ar peak to peak volt	nd 80 %of Differential Output	
Start-up time	t_str	3 ms	Max.	Time at minimum supply voltage to be 0 s		
Phase Jitter	tpj	0.6 ps	Max. ^{*1}	Offset frequency: 12 kHz to 20 MHz		
Frequency aging	f_aging	$\pm 5 \times 10^{-6}$ /	vear Max.	+25 °C, First year, Vcc = 2.5 V, 3.3 V		

Product Name (Standard form)

1

④Supply K 2.5

SG3225 E AN 156.250000MHz K J G A

2 (3) 4567

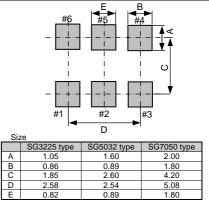
①Model ②Output (E: LV-PECL, V: LVDS) ③Frequency ④Supply voltage ⑤Frequency tolerance ©Operating temperature ⑦Internal identification code ("A" is default)

(56: CG is not available)

	-		-	-		
voltage	⑤Frequency tolerance			Operating temperature		
5 V ~ 3.3 V	J	±50 × 10 ⁻⁶		В	-20 ℃ ~ +70 ℃	
	Е	±30 × 10 ⁻⁶		G	-40 ℃ ~ +85 ℃	
	С	±20 × 10 ⁻⁶				

External dimensions (Unit: mm) Footprint (Recommended) 1.4±0.2 1.0±0.2 1.05±0.15 3.2±0.2 7.0±0.2 5 0+0 2 #5 #6 #4 #6 #5 #4 5±0.2 3.2±0.2 SG3225 Top View 5.0±0.2 SG5032 SG7050 #2 # #2 #3 #1 #2 Н 0.7 2.54 ΠНГ 20.3 5.08 CO.3 #1 #2 #3 0.6 Bottom View 0.7 1.8 2.6 0.91 Pin Name Pin Name 0.64 OF #4 OUT #1 OE pin = HIGH : Specified frequency output #2 N.C #5 OUT OE pin = LOW : Output is high impedance 1.4 #3 is connected to the cover. #3 GND #6 VCC

Not to scale.



(Unit: mm)

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 Vcc - GND).

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ISO/TS16949 is the international standard that added the sector-specific supplemental requirements for automotive industry based on ISO9001.

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