

High Frequency Crystal Oscillator SG – 615PCN

Preliminary

Products number
Q33615N4xxxxx00

- Reflowable and high density mounting type SMD package
- Operable 3.3V
- Out put frequencies from 26.0001 MHz to 67.000 MHz (3rd O/T)
- Output enable(OE : P type) function allow more low current consumption.(OUT:High Impedance)

Specifications

1. Absolute Maximum Ratings

Item	Symbol	Spec.	Remarks
Storage Temperature	T _{TG}	-55 °C to +125 °C	Stored as bare product
Maximum supply voltage	V _{DD}	-0.5 V to 7.0 V	
Maximum input voltage	V _{IN}	-0.5 V to V _{DD} +0.5 V	

2. Operating Conditions

Item	Symbol	Spec.	Remarks
Operating Temperature	T _{OPR}	-40 °C ~ +85 °C	
Operating voltage	V _{DD}	3.0 V ~ 3.6 V	
Input voltage	V _{IN}	GND ~ V _{DD}	
Output load condition	C _L	15 pF	

3. Frequency Characteristics

Item	Symbol	Spec.	Remarks
Output frequency range*	f ₀	26.0001 MHz ~ 66.6667 MHz	V _{DD} =3.0 V ~ 3.6 V
Frequency stability	f / f ₀	B: $\pm 50 \times 10^{-6}$, C: $\pm 100 \times 10^{-6}$	-20 °C ~+70 °C
		M: $\pm 100 \times 10^{-6}$	-40 °C ~+85 °C
Aging	f _a	$\pm 5 \times 10^{-6}$ Max.	+25 °C, V _{DD} =3.3V First year

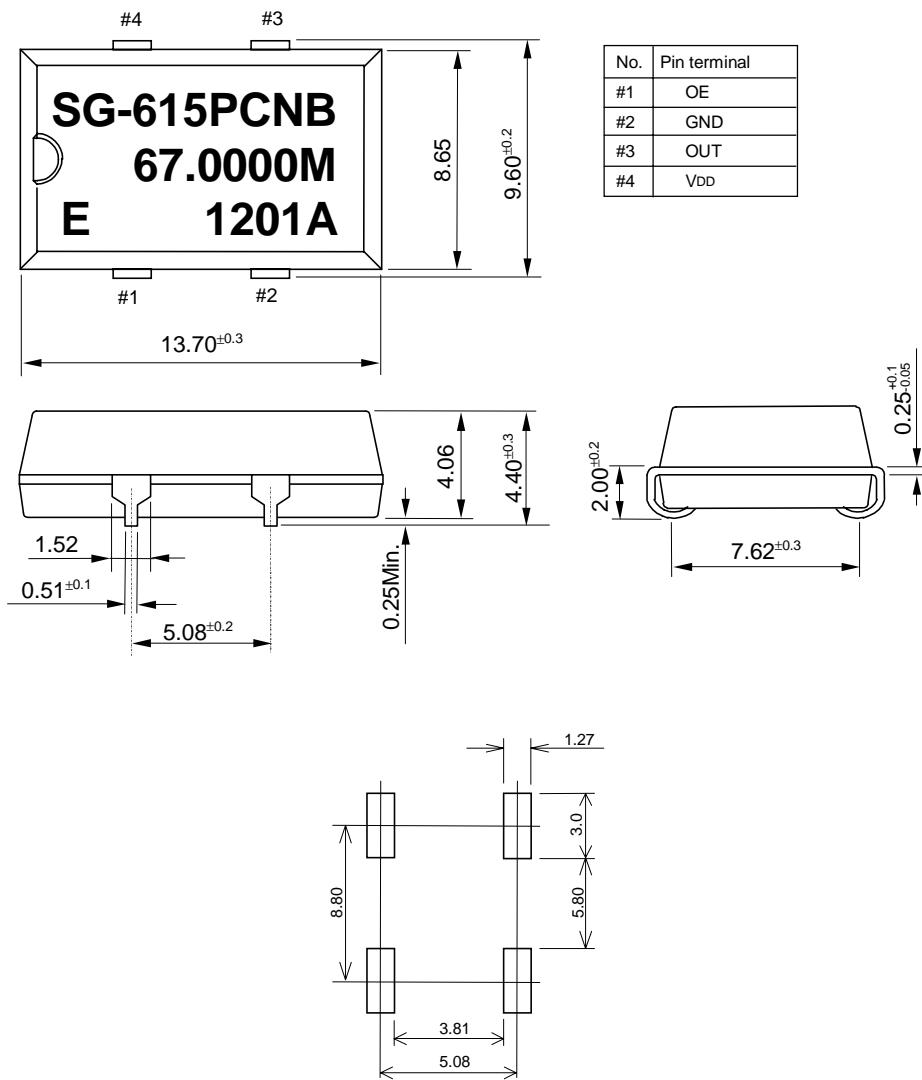
*Note :

Please contact to EPSON about Standard Frequency.

4. . Characteristics

Item	Symbol	Spec.	Remarks
Current consumption	I _{OP}	30 mA Max.	No load (67MHz)
Disable current	I _{OE}	15 mA Max.	OE=GND, OUT= High Impedance
OE input voltage	V _{IH}	70 %VDD Min.	
	V _{IL}	30 %VDD Max.	
OE input current	I _{IH}	10 μ A Max.	OE = VDD
	I _{IL}	10 μ A Max.	OE =GND
Duty	T _W / T	45 %~ 55 %	50%VDD, CL = 15 pF
Output voltage	V _{OH}	2.2 V Min.	VDD=2.7 V, I _{OH} = 8 mA
	V _{OL}	0.4 V Max.	VDD=2.7 V, I _{OL} = 8 mA
Output rise time	t _r	7.0 ns Max.	10 % to 90 %VDD CL \leq 15 pF
Output fall time	t _f	7.0 ns Max.	90 % to 10 %VDD CL \leq 15 pF
Oscillation start up time	t _{osc}	10 ms Max.	Time at minimum operating voltage to be 0 s

5. External Dimensions & Recommended soldering pattern (Unit : mm)



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