

CRYSTAL OSCILLATOR HIGH-STABILITY

HG - 8002JA series

- Frequency range : 1 MHz to 125 MHz
- Supply voltage : 3.3 V or 5.0 V
- Frequency tolerance : $\pm 20 \times 10^{-6}$ / -20 °C to +70 °C
- Function : Output enable(OE) or Standby(\overline{ST})
- Thickness : 4.7 mm Max.
Package and pin compatible with SG-615.



Actual size



Specifications (characteristics)

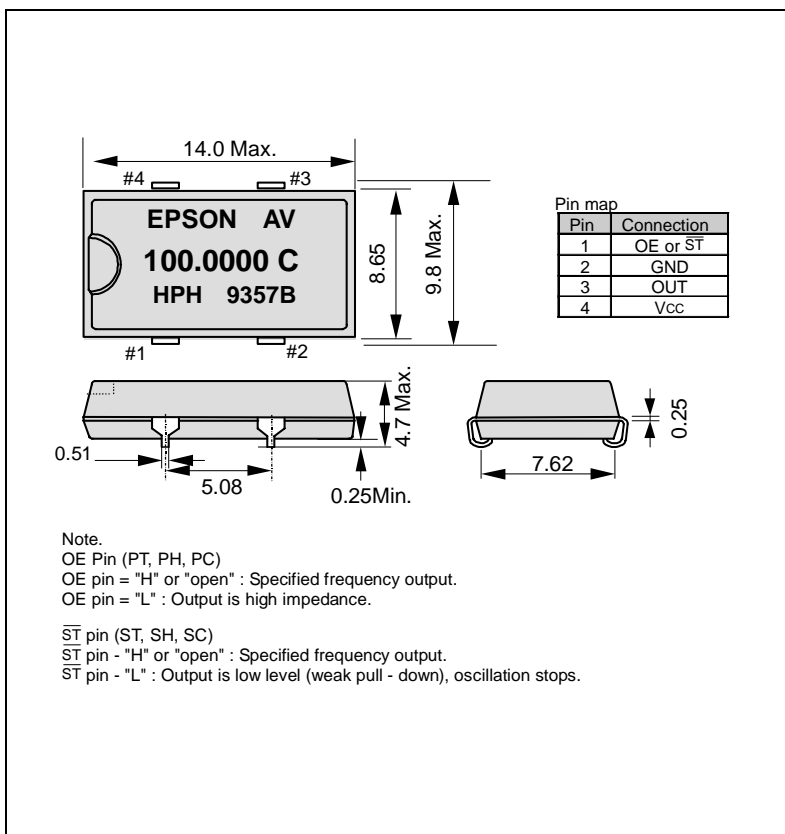
Item	Symbol	Specifications			Remarks	
		PT / ST	PH / SH	PC / SC		
Output frequency range	f_0	1.000 MHz to 125.000 MHz				
Supply voltage	V _{cc}	5.0 V \pm 0.25 V		3.3 V \pm 0.165 V		
Temperature range	Storage temperature	T _{stg} -55 °C to +125 °C			Store as bare product after unpacking	
	Operating temperature	T _{use} -20 °C to +70 °C (-40 °C to +85 °C)		-40 °C to +85 °C		
Frequency tolerance	f _{tol(osc)}	AV: $\pm 20 \times 10^{-6}$, BV: $\pm 25 \times 10^{-6}$			-20 °C to +70 °C	
		CX: $\pm 30 \times 10^{-6}$			-40 °C to +85 °C *1	
Current consumption	I _{cc}	45 mA Max.		28 mA Max.	No load condition, Max. frequency	
Output disable current	I _{dis}	30 mA Max.		16 mA Max.	OE=GND (PT,PH,PC)	
Stand-by current	I _{std}	50 μ A Max.			\overline{ST} =GND (ST,SH,SC)	
Symmetry	SYM	—		40 % to 60 %	CMOS load:50%V _{cc} level, Max. load condition TTL load: 1.4V level, Max. load condition	
		40 % to 60 %		—		
High output voltage	V _{OH}	V _{cc} -0.4 V Min.			I _{OH} = -16 mA(PT,ST,PH,SH), -8 mA(PC,SC)	
Low output voltage	V _{OL}	0.4 V Max.			I _{OL} = 16 mA(PT,ST,PH,SH), 8 mA(PC,SC)	
Output load condition (TTL)	L _{TTL}	2 TTL Max.		—	Max. frequency	
Output load condition (CMOS)	L _{CMOS}	15 pF Max.			Max. supply voltage	
Output enable / disable input voltage	V _{IH}	2.0 V Min.		70 % V _{cc} Min.	\overline{ST} , OE terminal	
	V _{IL}	0.8 V Max.		20 % V _{cc} Max.	\overline{ST} , OE terminal	
Output rise and fall time	t _r / t _f	—			3 ns Max.	CMOS load: 20 % V _{cc} to 80 % V _{cc} level
		4 ns Max.		—		TTL load: 0.4 V to 2.4 V level
Oscillation start up time	t _{osc}	10 ms Max.			Time at minimum supply voltage to be 0 s	
Frequency aging	f _{aging}	$\pm 2 \times 10^{-6}$ / year Max.			+25 °C, V _{cc} =5.0 V/ 3.3 V (PC / SC)	

PLL-PLL connection & Jitter specification, please refer to "Jitter specifications and characteristics chart" page.

*1 PT, ST and PH, SH for "CX" tolerance will be available up to 55 MHz.

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

