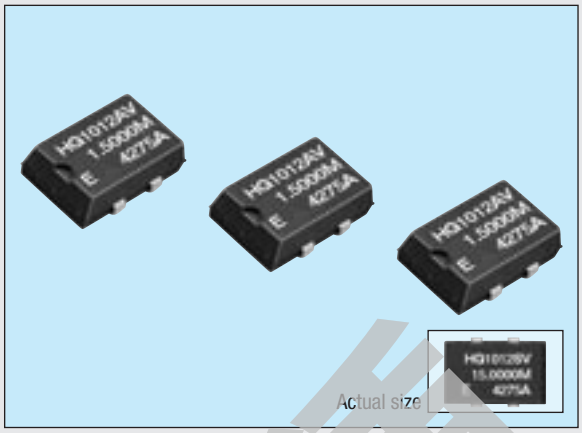
HIGH-STABILITY HIGH-FREQUENCY OSCILLATOR

HG-1012JA / 2012JA

Product number (please refer to page 3)

Q3511JA0xxxxx00
Q3512JA0xxxxx00

- Cylindrical AT crystal unit built-in, thus assuring high reliability.
- Excellent heat resistance.
- Low current consumption.
- Available for lead (Pb)-free soldering.
- Available for lead (Pb)-free terminal.

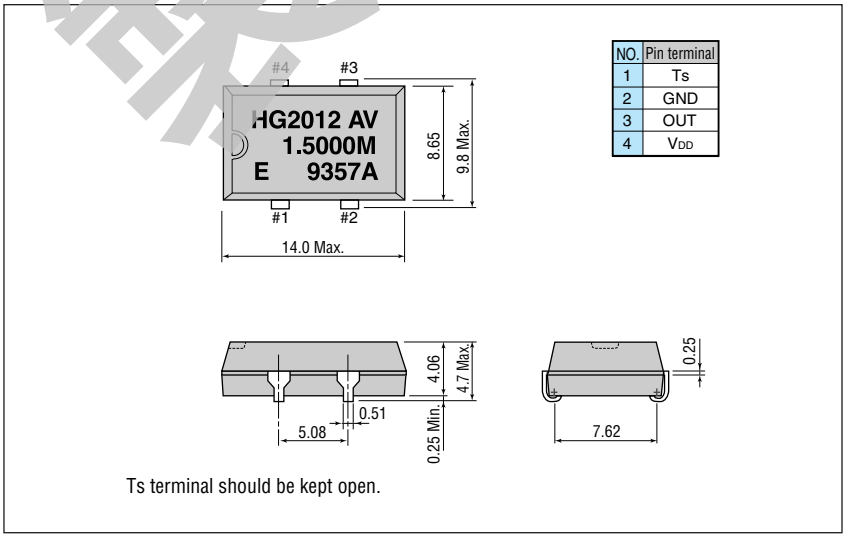


■ Specifications (characteristics)

Item		Symbol	Specifications		Remarks
			HG-1012JA	HG-2012JA	
Output frequency range		fo	1.5000 MHz to 28.63636 MHz		VDD = 4.75 V to 5.25 V
Power source voltage	Max. supply voltage	VDD-GND	-0.5 V to +7.0 V		
	Operating voltage	VDD	5.0 V ±0.25 V		
Temperature range	Storage temperature	TSTG	-55 ˚C to +125 ˚C		Stored as bare product after unpacking
	Operating temperature	TOPR	-40 ˚C to +85 ˚C		
Frequency stability		Δf/fo	AV: ±20 x 10^{-6}, BV: ±25 x 10^{-6}	SV: ±15 x 10^{-6}, AV: ±20 x 10^{-6}	Ta = -20 ˚C to +70 ˚C
			BX: ±25 x 10^{-6}, CX: ±30 x 10^{-6}	BX: ±25 x 10^{-6}	Ta = -40 ˚C to +85 ˚C
Current consumption		Iop	10 mA Max.		No load condition
Duty		tw/ t	40 % to 60 %		1/2 VDD level
High output voltage		VOH	VDD -0.4 V Min.		IOH = -0.8 mA
Low output voltage		VOL	0.4 V Max.		IOL = 3.2 mA
Output load condition		CL	15 pF		
Output rise time		tR	8 ns Max.		20 % → 80 % VDD level
Output fall time		tF	8 ns Max.		80 % → 20 % VDD level
Oscillation start up time		tosc	4 ms Max.		Time at 4.75 V to be 0 s
Aging		fa	±5 x 10^{-6} / year Max.	±2 x 10^{-6} / year Max.	Ta = +25 ˚C, first year
Shock resistance		S.R.	±10 x 10^{-6} Max.	±2 x 10^{-6} Max.	Three drops on a hard board from 750 mm or excitation test with 29400 m/s^2 x 0.3 ms x 1/2sine wave in 3 directions

■ External dimensions

(Unit: mm)



NO.	Pin terminal
1	Ts
2	GND
3	OUT
4	VDD

Ts terminal should be kept open.

■ Recommended soldering pattern

(Unit: mm)