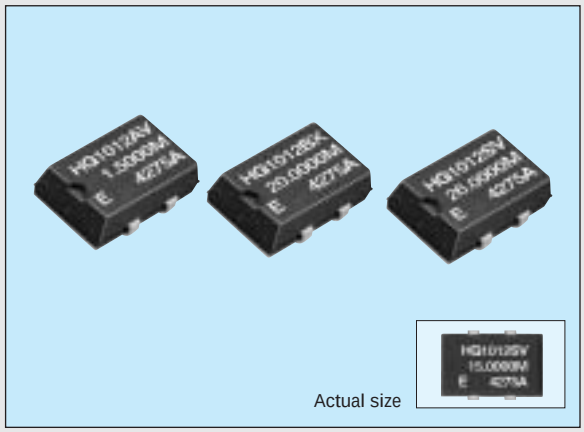
HIGH-STABILITY HIGH-FREQUENCY OSCILLATOR

HG-1012JA/2012JA

Product number (please refer to page 2)

Q3511JA0xxxxx00
Q3512JA0xxxxx00

- Cylindrical AT crystal unit built-in, thus assuring high reliability.
- Excellent heat resistance.
- Low current consumption.

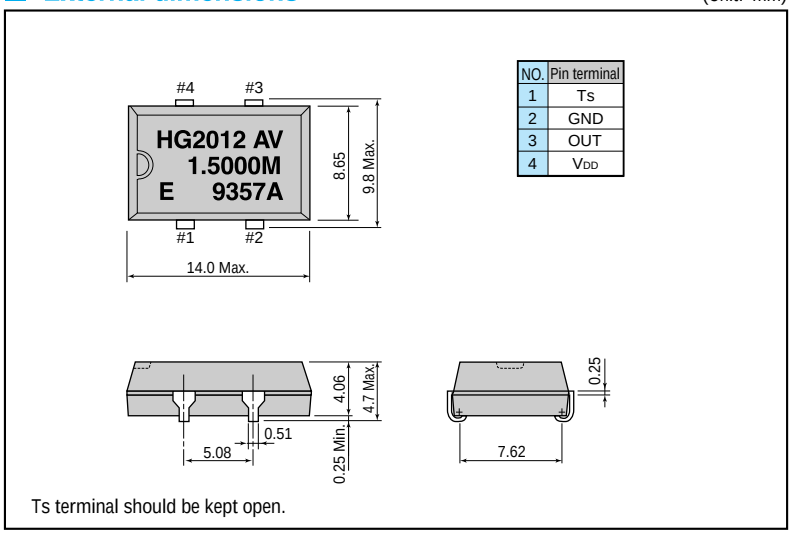


Specifications (characteristics)

Item		Symbol	Specifications		Remarks
			HG-1012JA	HG-2012JA	
Output frequency range		f_0	1.5000 MHz to 28.63636 MHz		V_{DD} =4.75 V to 5.25 V
Power source voltage	Max. supply voltage	V_{DD}-GND	-0.5 V to +7.0 V		
	Operating voltage	V_{DD}	5.0 V ±0.25 V		
Temperature range	Storage temperature	T_{STG}	-55 °C to +125 °C		Stored as bare product after unpacking
	Operable temperature	T_{OPR}	-40 °C to +85 °C		
Frequency stability		$\Delta f/f_0$	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		t_W/t	40 % to 60 %		1/2 V_{DD} level
High output voltage		V_{OH}	V_{DD} -0.4 V Min.		I_{OH}= -0.8 mA
Low output voltage		V_{OL}	0.4 V Max.		I_{OL}=3.2 mA
Output load condition		C_L	15 pF Max.		
Output rise time		t_{TLH}	8 ns Max.		20 %→80 % V_{DD} level
Output fall time		t_{THL}	8 ns Max.		80 %→20 % V_{DD} level
Oscillation start up time		t_{OSC}	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 wooden board from 750 mm or excitation test with 29400 m/s² 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	V_{DD}

Ts terminal should be kept open.

Recommended soldering pattern

(Unit: mm)