CRYSTAL OSCILLATOR
HIGH-STABILITY

HG - 2150CA series

- Frequency range : 1 MHz to 60 MHz
- Supply voltage : 3.3 V / 5.0 V
- Frequency tolerance : ±15×10^{-6} / -20 °C to +70 °C
- Function : Output enable(OE)
- External dimensions : 7.0 × 5.0 × 1.4 t (mm) Typ.

Pb Free RoHS Compliant

Product Number (please contact us)
Q3514CA00xxxx00

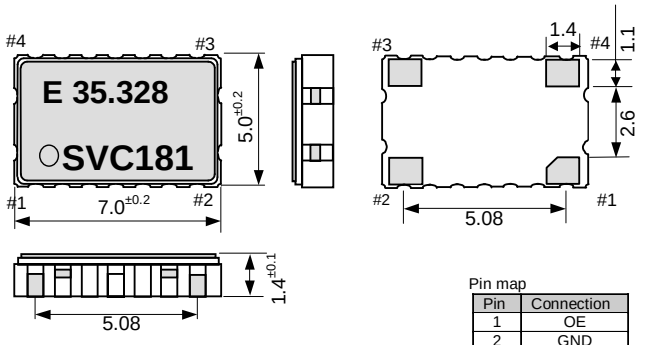
Actual size

Specifications (characteristics)

Item		Symbol	Specifications SVH / BXH	Specifications SVC / BXC	Remarks
Output frequency range		f_0	1.000 MHz to 60.000 MHz		
Supply voltage		V_{CC}	H:5.0 V ±0.5 V	C:3.3 V ±0.3 V	
Temperature range	Storage temperature	T_stg	-40 °C to +125 °C		Store as bare product after unpacking
	Operating temperature	T_use	V:-20 °C to +70 °C X:-40 °C to +85 °C		
Frequency tolerance		f_tol	S: ±15 × 10^{-6} *1		-20 °C to +70 °C
			B: ±25 × 10^{-6} *1		-40 °C to +85 °C
Current consumption		I_{CC}	30 mA Max.	25 mA Max.	No load condition, OE = V_{CC}
Disable current		I_dis	15 mA Max.	12 mA Max.	OE=GND
Symmetry		SYM	45 % to 55 %		50 % V_{CC} level
High output voltage		V_{OH}	V_{CC}-0.4 V Min.		I_{OH}=-4 mA
Low output voltage		V_{OL}	0.4 V Max.		I_{OL}= 4 mA
Output load condition		L_CMOS	15 pF Max.		CMOS load
Output enable input voltage		V_{IH}	70 % V_{CC} Min.		OE terminal
Output disable input voltage		V_{IL}	30 % V_{CC} Max.		OE terminal
Rise time / Fall time		t_r / t_f	4 ns Max.		20 % V_{CC} to 80 % V_{CC} level
Start-up time		t_str	10 ms Max.		Time at minimum supply voltage to be 0 s.
Frequency aging		f_aging	±10 × 10^{-6} Max. *2		+25 °C, 10 years

*1 Frequency tolerance includes variation in reflow soldering drift, operating temperature range, supply voltage range and load change.
*2 50 MHz < f_0 ≤ 60 MHz: ±15 × 10^{-6} Max.

External dimensions (Unit:mm)

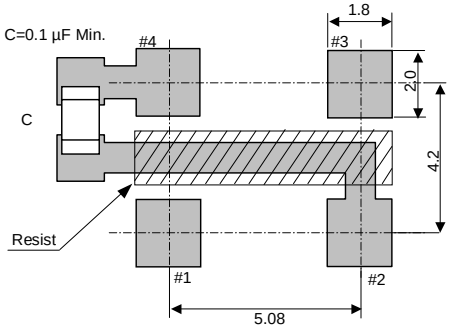


Pin map

Pin	Connection
1	OE
2	GND
3	OUT
4	V_{CC}

Note.
OE Pin
OE pin = "H" or "open" : Specified frequency output.
OE pin = "L" : Output is high impedance, oscillation stops.

Footprint (Recommended) (Unit:mm)



To maintain stable operation, provide by-pass capacitor with more than 0.1 µF at a location as near as possible to the power source terminal of the crystal products (between V_{CC} - GND).