

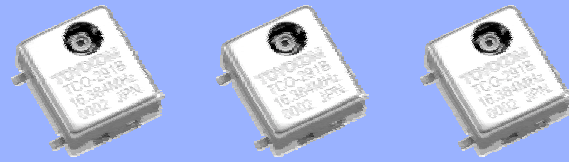


### VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO)

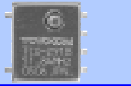


## TCO-291B / C series

- Frequency range : 8 MHz to 125 MHz
- Supply voltage : 3.3 V, 5.0 V
- Frequency control range :  $\pm 100 \times 10^{-6}$
- Features : Wide frequency control range  
: Fundamental mode oscillator with HFF-XTAL (fo $\geq$ 60 MHz)



Actual size



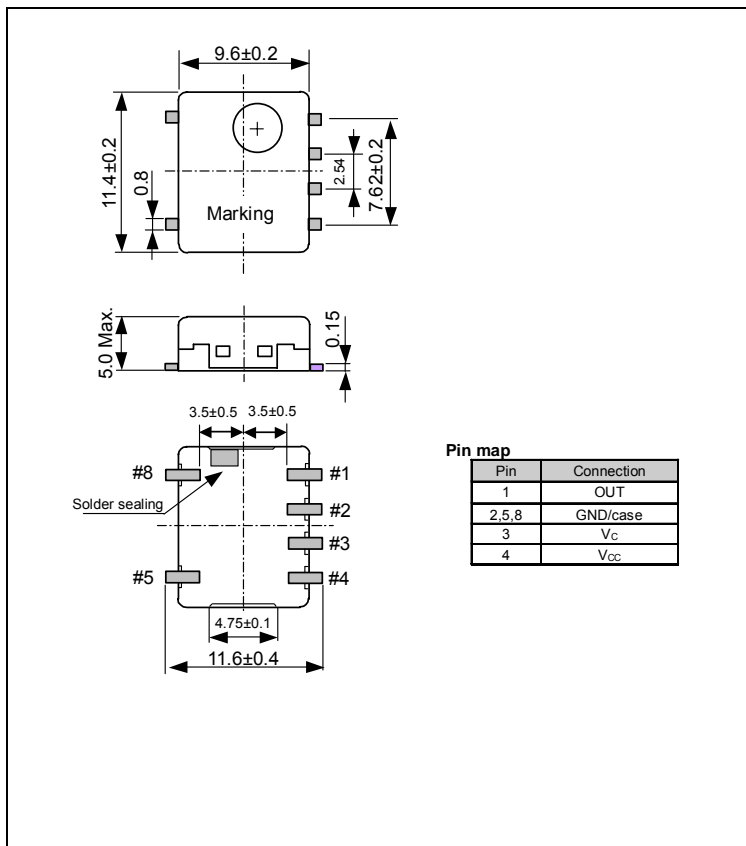
### Specifications (characteristics)

Item	Symbol	TCO-291B	TCO-291C	TCO-291B2	TCO-291C2	Remarks
Output frequency range	f <sub>o</sub>	8.000 MHz to 78.000 MHz		8.000 MHz to 125.000 MHz		
Supply voltage	V <sub>cc</sub>	5.0 V $\pm$ 0.25 V		3.3 V $\pm$ 0.165 V		
Storage temperature range	T <sub>stg</sub>	-40 °C to +85 °C				Store as bare product after unpacking
Operating temperature range	T <sub>use</sub>	-20 °C to +70 °C				
Frequency tolerance *1	f <sub>tol(osc)</sub>	$\pm 35 \times 10^{-6}$ Max.				-20 °C to +70 °C
Current consumption	I <sub>cc</sub>	50 mA Max.				
Frequency control range	f <sub>cont</sub>	$\pm 100 \times 10^{-6}$ Min. V <sub>c</sub> = 2.5 V $\pm$ 2 V		$\pm 100 \times 10^{-6}$ Min. V <sub>c</sub> = 1.65 V $\pm$ 1.65 V		
Input resistance	R <sub>in</sub>	100 k $\Omega$ Min.				DC level
Frequency change polarity	—	Positive slope				
Output load condition(TTL)	L <sub>TTL</sub>	2 TTL Max.	-	2 TTL Max.	-	
Output load condition(CMOS)	L <sub>CMOS</sub>	-	15 pF Max.	-	15 pF Max.	
Oscillation start up time	t <sub>osc</sub>	10 ms Max.				Time at minimum supply voltage to be 0 s.
Frequency aging	f <sub>aging</sub>	$\pm 5 \times 10^{-6}$ / year Max.				+25 °C, First year

\*1 This does not include initial frequency is tolerance because frequency adjustable.

### External dimensions

(Unit:mm)



### Footprint (Recommended)

(Unit:mm)

