EPSON TOYOCOM

Temperature Compensated Crystal Oscillator (TCXO)

TG–5500CA-**N

- High Stability TCXO (Stratum3 target)
- Reflowable 7.0×5.0×1.5 mm TCXO
- Operating supply voltage : 3.3 V.

■ Specifications

1. Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Supply voltage	V_{CC}-GND	-0.6 to 6.0	V	
Storage temperature range	T_stg	-40 to +90	°C	

2. Operating Conditions

Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power voltage	V_{CC}	3.135	3.3	3.465	V	Vcc = 3.3 V±5 %
Power voltage	GND	0.0	-	0.0	V	
Operating temperature range	T_use	-40	+25	+85	°C	
Output load	Load_C	13.5	15	16.5	pF	

3. Frequency Characteristics

(Vcc=3.3 V , GND=0.0 V , Load 15 pF , T_use=+25 °C)

Parameter	Symbol	Value	Note
Output frequency	fo	12.8 to 40 Main Frequency 12.8 , 13 , 16.368 , 19.2 , 20 25.6 , 26 , 32.736 , 38.4 , 40	MHz
Frequency tolerance	f_tol	± 1.0×10^{-6} Max.	T_use = +25 °C± 2 °C (After 1 reflows)
Frequency / temperature characteristics	fo-Tc	± 0.28×10^{-6} Max.	T_use=- 40 °C to + 85 °C (Based on frequency at +25 °C)
Frequency / load coefficient	fo-Load	± 0.1×10^{-6} Max.	Load : 15 pF ± 10 %
Frequency / voltage coefficient	fo-Vcc	± 0.1×10^{-6} Max.	Vcc =3.3 V ± 5%
Frequency aging	f_age	± 0.5×10^{-6} Max. ± 3.0×10^{-6} Max.	T_use=+25 °C, first year T_use=+25 °C, 20 years
Overall tolerance		± 4.6×10^{-6} Max.	T_use=+25 °C, 20 years

4. Electrical Characteristics

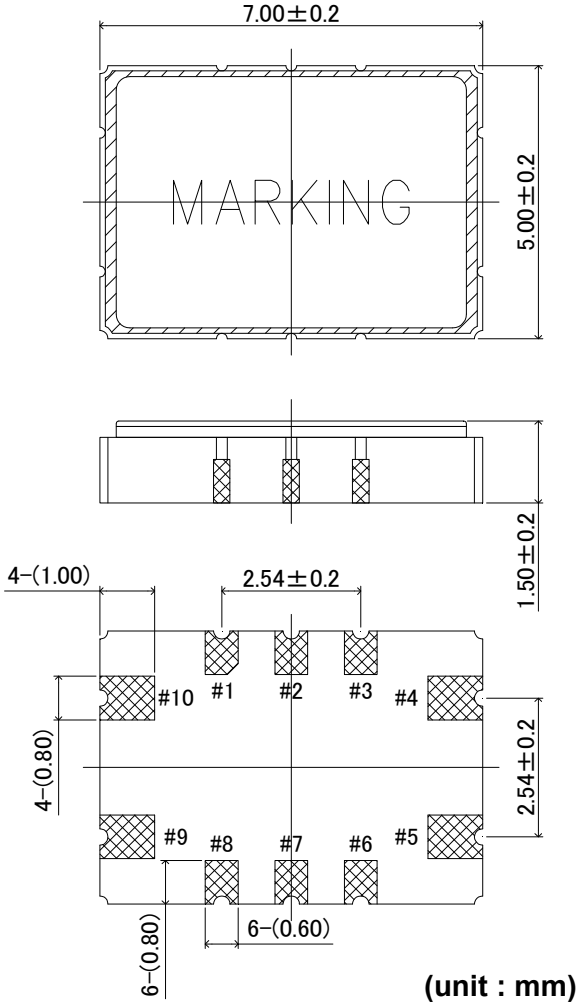
(Vcc=3.3 V , GND=0.0 V , Load 15 pF , T_use=+25 °C)

Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Current consumption	Icc			5.0 6.0	mA	~ 26 MHz ~ 40 MHz
Output waveform	-	CMOS			-	
High level	VOH	90%Vcc			V	-
Low level	VOL			10%Vcc	V	
Symmetry	SYM	45	50	55	%	50 % Vcc Level

5. Enable/disable input

Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Enable voltage	-	2.4	-	Vcc	Vcc	High
Disable voltage	-	0	-	0.6	0.6	Low
Input impedance	-	50.0				V_{CC} =3.3 V, 15 pF
When the VC-TCXO is disable	-	output impedance high				

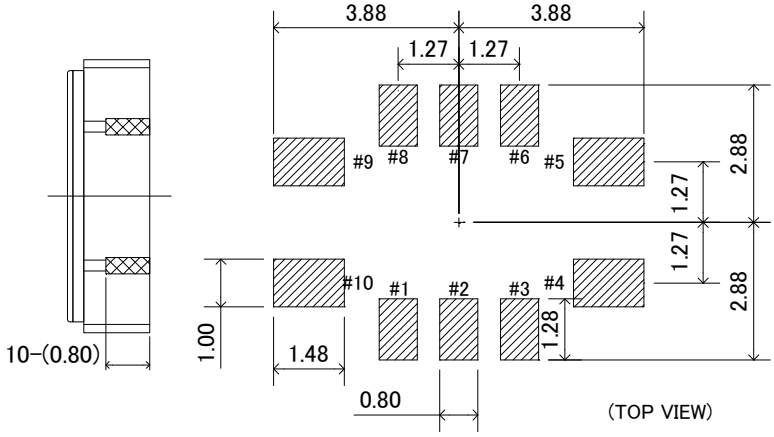
■ External Dimensions



(unit : mm)

Material
Ceramics(base)
Au coated nickel(terminal)
Fe-Ni-Co(lid)

■ Recommended soldering pattern



Do not connect "N.C." leads with any other leads (also mutually)

Pin Connections	
#1	N.C.
#2	N.C.
#3	N.C.
#4	GND
#5	OUT
#6	N.C.
#7	N.C.
#8	OE
#9	VCC
#10	N.C.

If OE Function does not use , We recommended connecting OE(#8pin) to Vcc(#9pin)

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- ● In this new crystal master for Epson toyocom, product code and marking will still remain as previously identified prior to the merger.
  Due to the on going strategy of gradual unification of part numbers, please review product code and marking as they will change during the course of the coming months.

We apologize for the inconvenience, but we will eventually have a unified part numbering system for Epson toyocom which will be user friendly.

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