

# TCXO-400

## 1. Specification

Specification:	TO-401	TO-402	TO-411	TO-412
Frequency range:	2.00 ... 40.00 MHz			
Nominal frequency tolerance:	< ± 3 ppm		< ± 3 ppm U <sub>C</sub> =2.5V	
Stability in the temperature range - 20°C to + 70°C:	<± 1 ppm	<± 2 ppm	<± 1ppm	<± 2ppm
Frequency stability vs. supply voltage changes UB ± 5 %: vs. load changes ± 5 %:	< ± 1 ppm < ± 1 ppm			
Aging @ 25°C:	± 2 ppm first / ± 1 ppm following years			
Frequency correction:	± 5 ppm by int. trimmer		± 8 ppm by ext. voltage 0.5 ... 4.5V	
Transfer function / Linearity:	-		positive	
Supply voltage U <sub>B</sub> :	5 V ± 5 %			
Current consumption:	≤ 20 mA			
Output voltage : load : duty cycle: rise / fall time:	HCMOS; Low < 0.4 V; High > 4.0 V 1 kOhm // 15 pF 50 % / ± 10 % 10 nsec.			
Phase noise @ 100 Hz: @ 1000 Hz	-105 dBc/Hz -120 dBc/Hz			
Operating Temperature range: Operable Temperature range: Storage Temperature range:	-20°C ... + 70°C -25°C ... + 75°C -40°C ... + 85°C			

## 2. Environmental conditions

Shock:	DIN IEC 68-2-27, Test Ea, 100 g, 6ms Half-sine, 3 bumps in 3 main directions
Vibration:	DIN IEC 68-2-6, Test Fc, 10-500Hz, 10g, 2 h in 3 main directions
Humidity:	DIN IEC 68-2-3, 40°C/93%RH, 21 days
Solderability:	DIN IEC 68-2-20 only for wire leads, Methode 3: Solder globule at + 235°C



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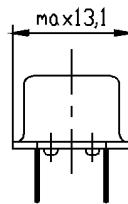
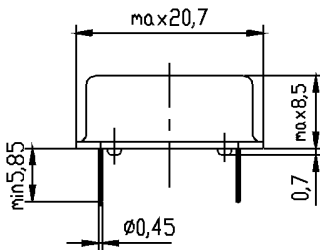
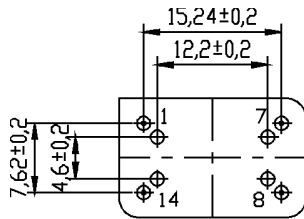
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## 3. Marking

Manufacturer's name, date code(week/year)  
 Specification  
 Center frequency

## 4. Case

Case style: BF-100



### 1.Pin configuration

TO-401 / TO-402:

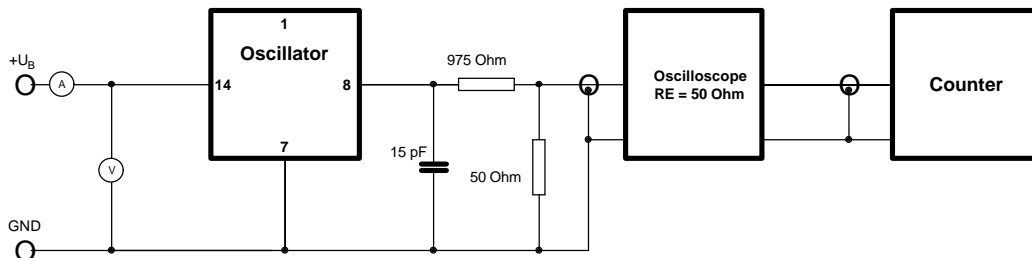
- 1. N.C.
- 7. Ground, case
- 8. RF-output
- 14. Supply voltage

TO-411 / TO-412:

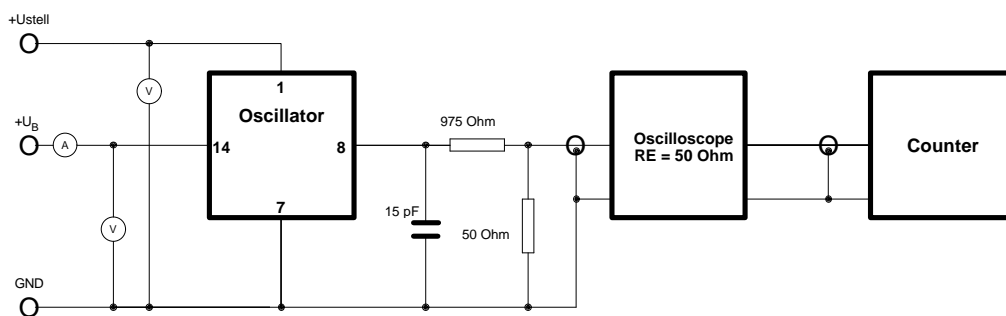
- 1. Control voltage  $U_c$
- 7. Ground, case
- 8. RF-output
- 14. Supply voltage

## 5. Test circuit

TO-401/TO-402:



TO-411/TO-412:



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