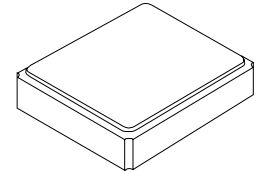


XTC7006H

26.0000 MHz
TCXO



4-Terminal SMD Case

- **Temperature-compensated Crystal Oscillator**
- **Ultra-miniature 2.1 x 1.7 mm SMD Package**
- **Excellent Frequency Stability**
- **Low Phase Noise**
- **Complies with Directive 2002/95/EC (RoHS)**

Electrical Characteristics

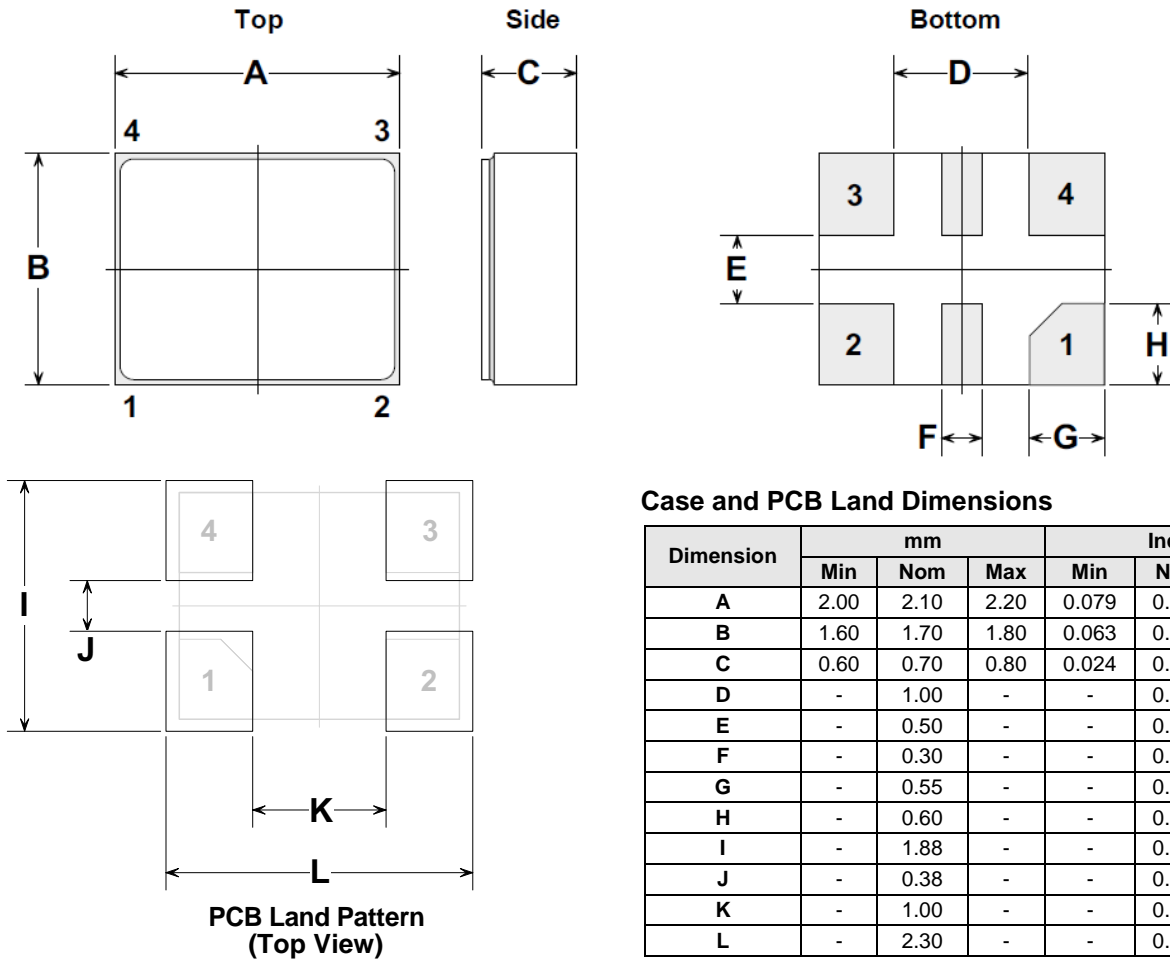
Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency	f_o			26.0000		MHz
Storage Temperature Range in Tape and Reel			-40		+85	°C
Operating Temperature Range			-40		+85	°C
Power Supply Voltage	V_{CC}		2.66	2.8	2.94	V
Output Voltage with 10 pF 10 K Ω Load	V_{OUT}		0.8			V_{P-P}
Output Waveform			Clipped Sinewave			
Power Supply Current	I_{CC}				1.5	mA
Frequency Tolerance as Shipped			± 1 ppm maximum @ 25 ± 2 °C			
Frequency Tolerance after Reflow			± 2 ppm maximum @ 25 ± 2 °C			
Frequency Stability versus:						
Temperature, -40 to 85 °C, Referenced to 25 °C					± 1.0	ppm
Load variation, 10 pF 10 K Ω $\pm 10\%$					± 0.2	ppm
Supply voltage, 2.8 V $\pm 5\%$					± 0.1	ppm
Static Temperature Hystereris					± 0.6	ppm
Frequency Slope (one measurement at least every 2 °C)			± 0.1 ppm/°C maximum, -30 to 85 °C			
Start Up Time (90% of Final RF level in V_{p-p})					2.0	ms
Harmonics					-7.0	dBc
Aging at 25°C					± 1.0	ppm/yr
Phase Noise @ 1 Hz carrier offset					-62	dBc/Hz
Phase Noise @ 10 Hz carrier offset					-90	
Phase Noise @ 100 Hz carrier offset					-112	
Phase Noise @ 1 kHz carrier offset					-132	
Phase Noise @ 10 kHz carrier offset					-145	
Phase Noise @ 100 kHz carrier offset					-147	
Stanard Shipping Quantity on 180 mm (7") Reel				1000		units
Lid Symbolization, Y = year digit, W = week character				2V, <u>YW</u>		

 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

4 Terminal Surface Mount Seam Welded Case 2.1 x 1.7 mm Nominal Footprint



Case and PCB Land Dimensions

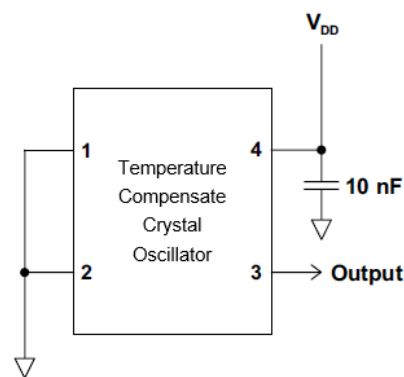
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.00	2.10	2.20	0.079	0.083	0.087
B	1.60	1.70	1.80	0.063	0.067	0.071
C	0.60	0.70	0.80	0.024	0.028	0.031
D	-	1.00	-	-	0.039	-
E	-	0.50	-	-	0.020	-
F	-	0.30	-	-	0.012	-
G	-	0.55	-	-	0.022	-
H	-	0.60	-	-	0.024	-
I	-	1.88	-	-	0.074	-
J	-	0.38	-	-	0.015	-
K	-	1.00	-	-	0.039	-
L	-	2.30	-	-	0.091	-

Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic

Terminal Connections

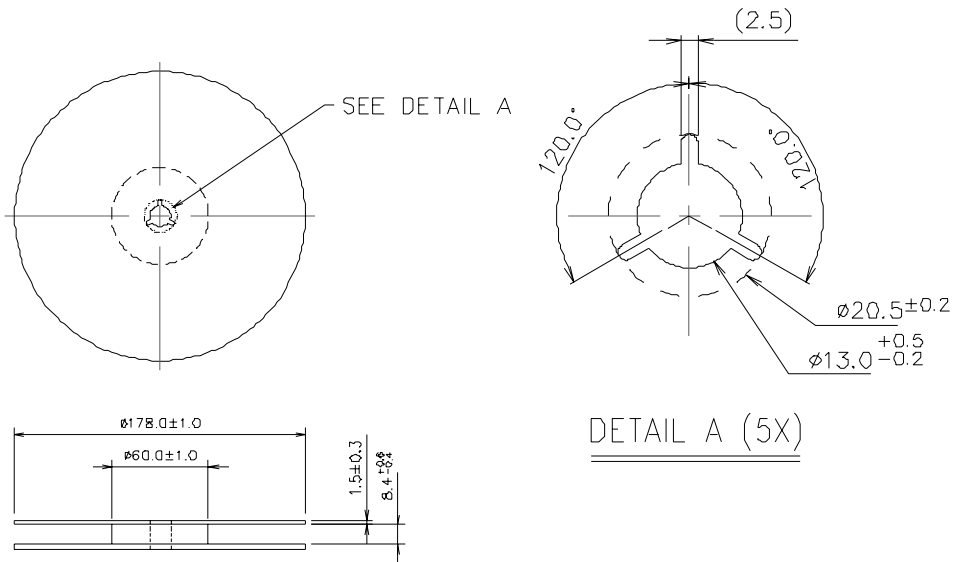
Connection	Terminal
Ground	1
Ground	2
TCXO Output	3
V_{DD}	4



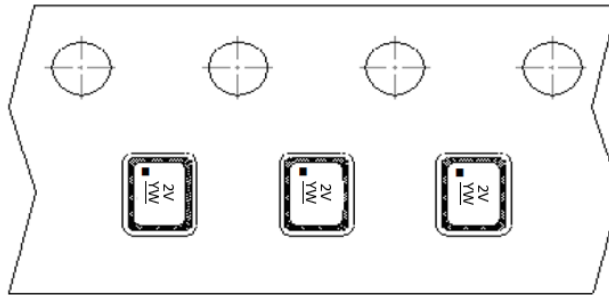
TCXO Application Circuit

Reel Dimensions

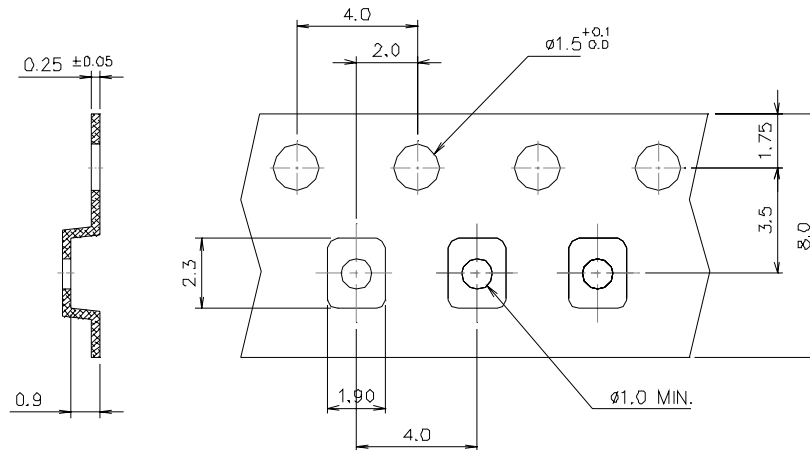
Tape and Reel Standard per ANSI/EIA-481



Tape Orientation



Tape Dimensions



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

