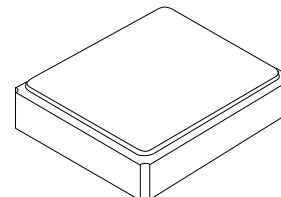


Preliminary




XTC7008

**40.00000 MHz
TCXO**



4-Terminal SMD Case

- **Temperature Compensated Crystal Oscillator**
- **Miniature 3.2 x 2.5 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			40.00000		MHz
Frequency Tolerance after Reflow			±2 ppm maximum @ 25 ±3 °C			
Storage Temperature Range			-40		+85	°C
Operating Temperature Range			-30		+85	°C
Power Supply Voltage	V_{DD}		2.66	2.80	2.94	V
Output Voltage with 10 pF 10 KΩ Load	V_{out}		0.8			V_{P-P}
Output Waveform			Clipped Sinewave			
Power Supply Current	I_{DD}				2.0	mA
Frequency Stability versus:						
Temperature, -30 to 85 °C					±2.5	ppm
Load Variation, 10 pF 10 KΩ ±10%					±0.2	ppm
Supply Voltage, 2.8 V ±5%					±0.2	ppm
Start Up Time, 90% of Final RF Level in V_{P-P}					2.0	ms
Harmonics					-5.0	dBc
Phase Noise @ 1 kHz Carrier Offset					-130	dBc/Hz
Standard Shipping Quantity on 180 mm (7") Reel				1000		units
Lid Symbolization (in addition to Lot and/or Date Codes)			Line1: 7008 Line2: YWWS			

Pin Connections

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



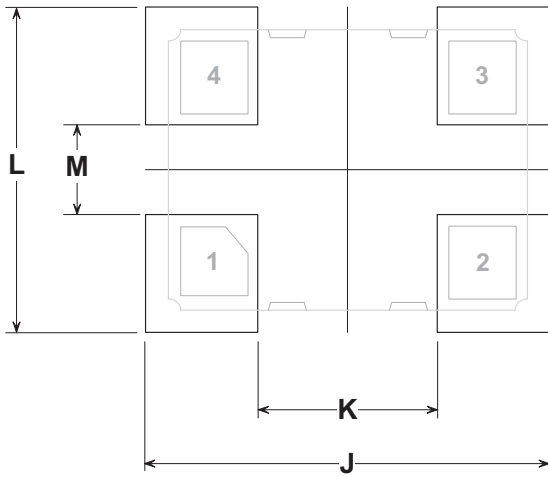
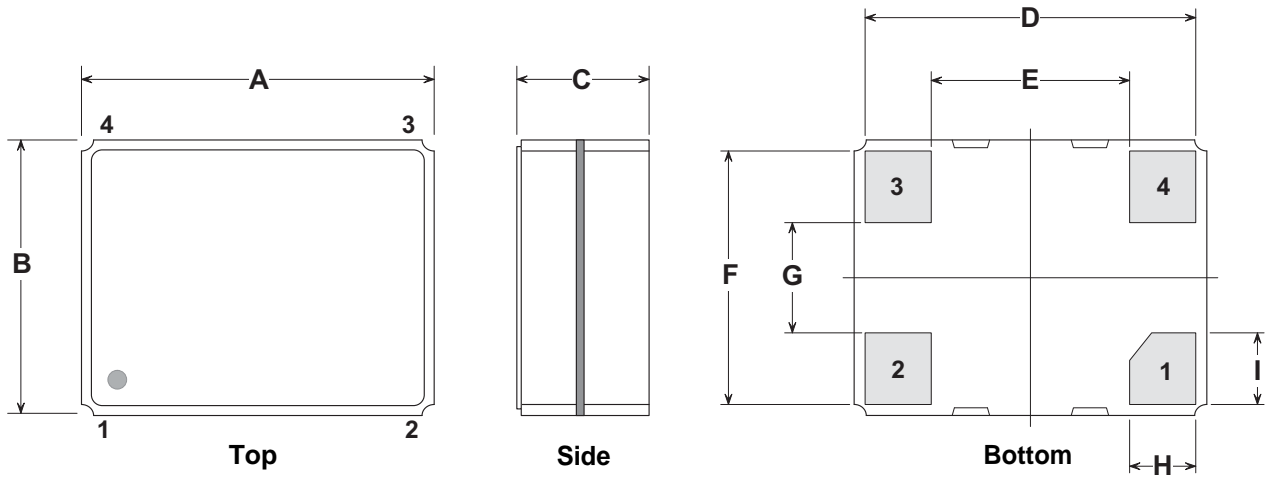
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

Notes:

1. The design, manufacturing process, and specifications of this device are subject to change without notice.

4-Terminal Surface-Mount Seam Weld Case

3.2 x 2.5 mm Nominal Footprint



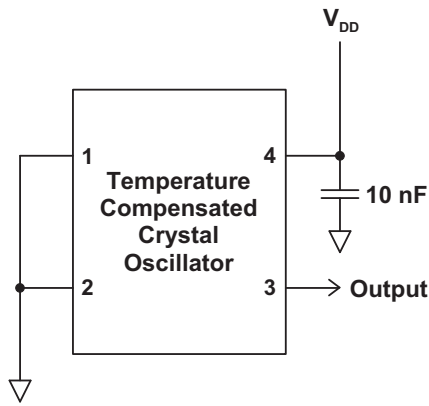
**PCB Land Pattern
(Top View)**

Case and PCB Land Dimensions

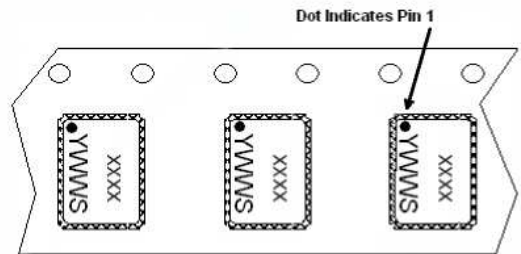
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.00	3.20	3.40	0.118	0.126	0.134
B	2.30	2.50	2.70	0.091	0.098	0.106
C	-	-	1.20	-	-	0.047
D	-	3.08	-	-	0.121	-
E	-	1.80	-	-	0.071	-
F	-	2.38	-	-	0.094	-
G	-	1.00	-	-	0.039	-
H	-	0.60	-	-	0.024	-
I	-	0.65	-	-	0.026	-
J	-	3.60	-	-	0.142	-
K	-	1.60	-	-	0.063	-
L	-	2.90	-	-	0.114	-
M	-	0.80	-	-	0.031	-

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
Pb Free	

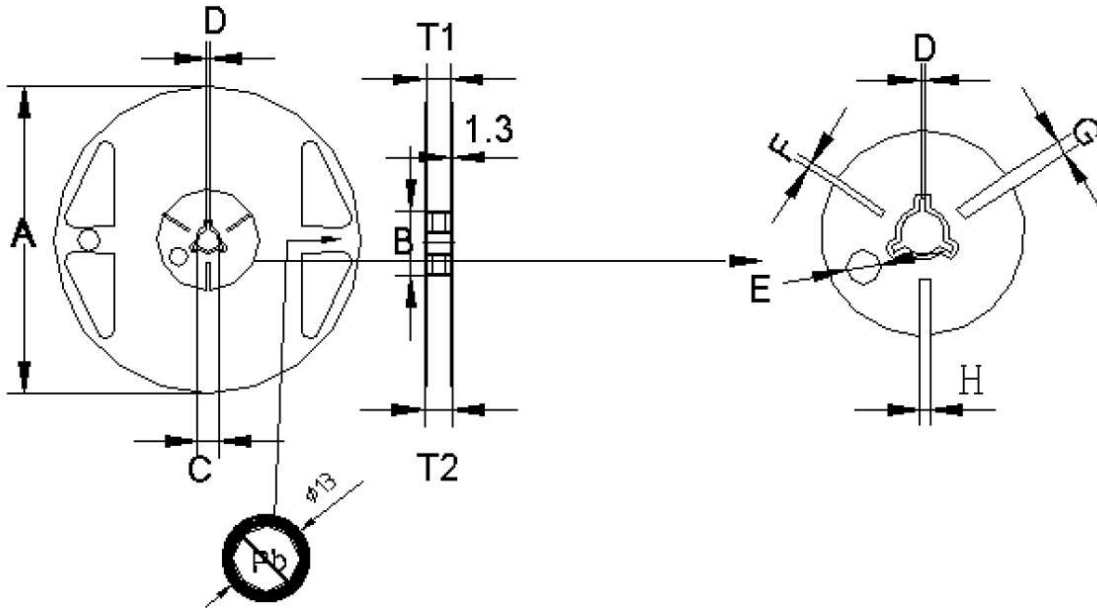


TCXO Application Circuit



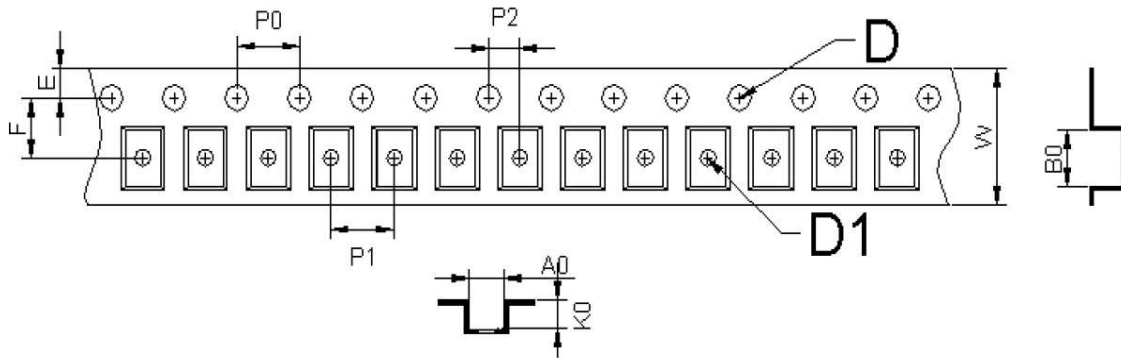
Package Orientation in Carrier Tape

Reel Dimensions



mm	A	B	C	D	E	F	G	H	T1	T2	T3
Dimension	180	60	13.0	2.0	9.1	2.9	4.9	3.9	9.0	11.4	1.2
Tolerance	± 1.0	$+1.0/-0.0$	± 0.2	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.3	± 1.0	± 0.1

Tape Dimensions



mm	A0	B0	W	F	E	P0	P1	P2	D1	D	K0	t
Dimension	2.80	3.71	8.00	3.50	1.75	4.00	4.00	2.00	1.50	1.00	1.75	0.25
Tolerance	± 0.10	± 0.10	$+0.30/-0.10$	± 0.05	± 0.10	± 0.10	± 0.10	± 0.05	$+0.10/-0.00$	$+0.25/-0.00$	± 0.10	± 0.02