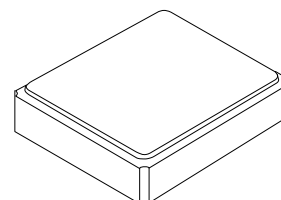


- **Temperature Compensated Crystal Oscillator**
- **Miniature 3.2 x 2.5 mm SMD Package**
- **Excellent Frequency Stability**
- **Low Phase Noise**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**



4-Terminal SMD Case

Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency	F _O			40.00000		MHz
Frequency Tolerance as Received, Ref. to Nominal Frequency			±1 ppm maximum @ 25°C ±3 °C			
Frequency Tolerance after 2 x Reflow, Ref. to pre-reflow Freq.			±1 ppm maximum @ 25°C ±3 °C			
Storage Temperature Range (Tape/Reel Only)			-40		+85	°C
Storage Temperature Range (Device Only)			-55		+105	°C
Operating Temperature Range			-30		+85	°C
Power Supply Voltage	V _{DD}		2.85	3.0	3.15	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}				3.0	mA
Frequency Stability versus:						
Temperature, -30 to 85 °C					±1.0	ppm
Load Variation, 10 pF 10 K Ω±5%					±0.1	ppm
Supply Voltage, 3.0 V ±5%					±0.2	ppm
						ppm
Start Up Time, 90% of Final RF Level in V _{P-P}					2.0	ms
Harmonics					-5.0	dBc
Phase Noise @ 40 MHz						dBc/Hz
@ 100 Hz					-110	dBc/Hz
@ 1 KHz					-130	dBc/Hz
@ 10 KHz					-140	dBc/Hz
@ 100 KHz					-150	dBc/Hz
Aging					±1.0	ppm/yr

Pin Connections

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

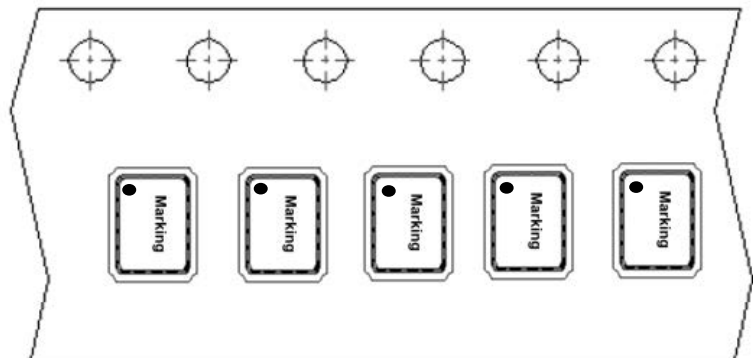
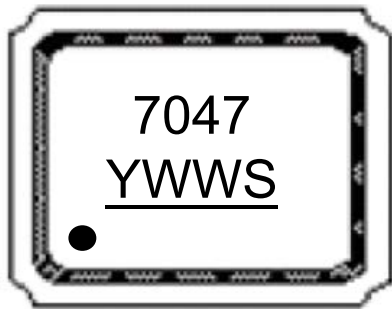
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

NOTES:

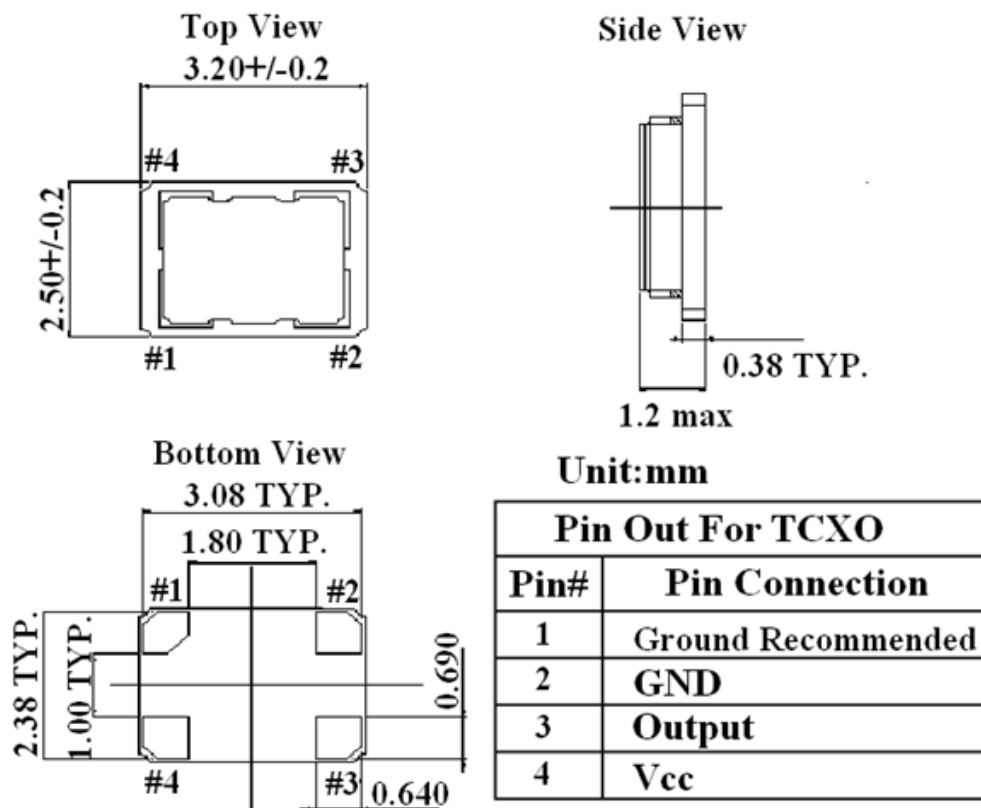
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Marking:

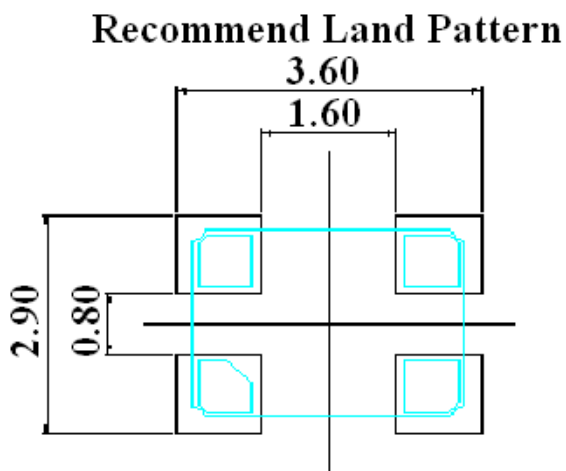
Y = Year, WW = Week, S = Shift



Mechanical Dimensions



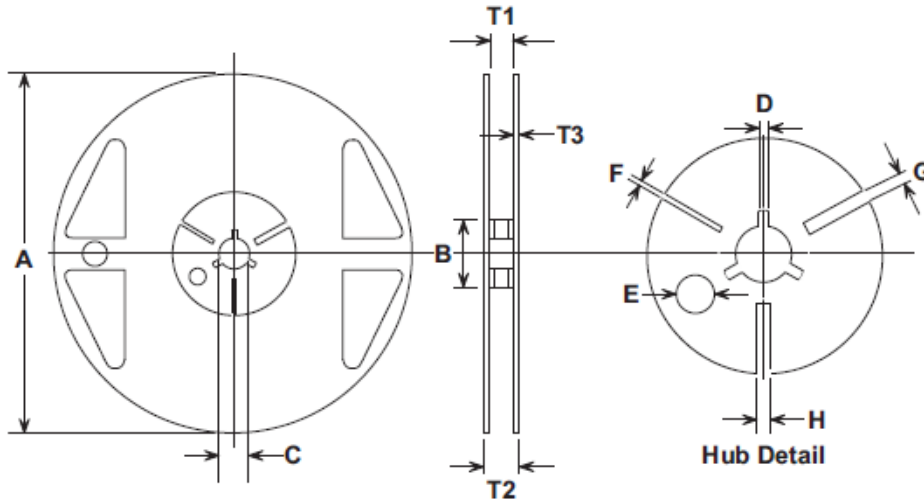
Recommended Land Pattern: (unit: mm)



Reel Dimensions

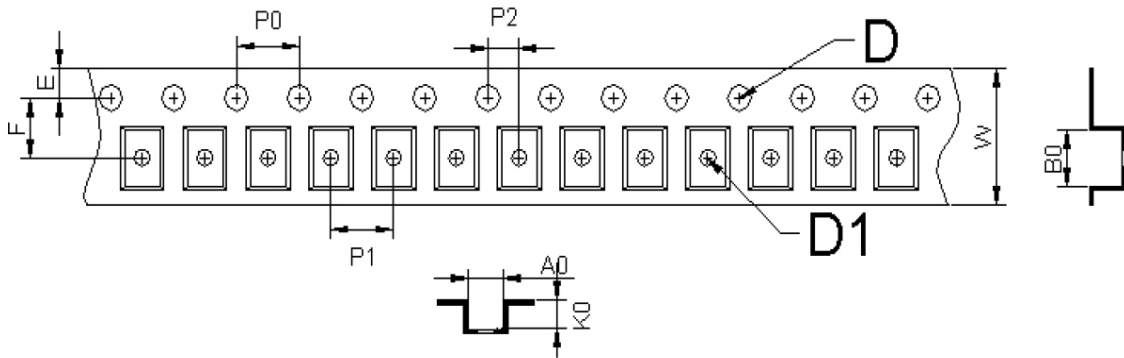
Tape and Reel Standard per ANSI/EIA-481

7" Reel = 3000



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

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.

