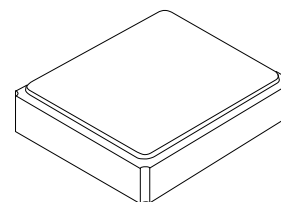


XTC7018G

32.00000 MHz
TCXO



SM2520-4

- **Temperature-compensated Crystal Oscillator**
- **Ultra-miniature 2.5 x 2.0 mm SMD Package**
- **Excellent Frequency Stability**
- **Low Phase Noise**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Frequency	f_o			32.00000		MHz
Frequency Tolerance as Received			±1 ppm maximum @ 25 ±3 °C			
Storage Temperature Range			-30		+85	°C
Operating Temperature Range			-10		+55	°C
Power Supply Voltage	V_{DD}		1.8		3.3	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_{DD}				2.0	mA
Frequency Stability versus:						
Temperature, -10 to 55 °C, Referenced to 25 °C					±1.0	ppm
Load Variation, 10 pF 10 K Ω ±10%					±0.2	ppm
Supply Voltage, Varied ±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					-125	dBc/Hz
10 Year Aging at 25 °C					±6.5	ppm
Standard Shipping Quantity on 180 mm (7") Reel				1000		units
Lid Symbolization (Y = year code, W = week code)			4C, <u>YW</u>			

Pin Connections

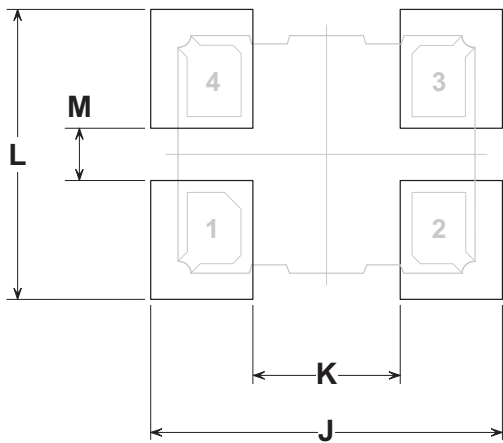
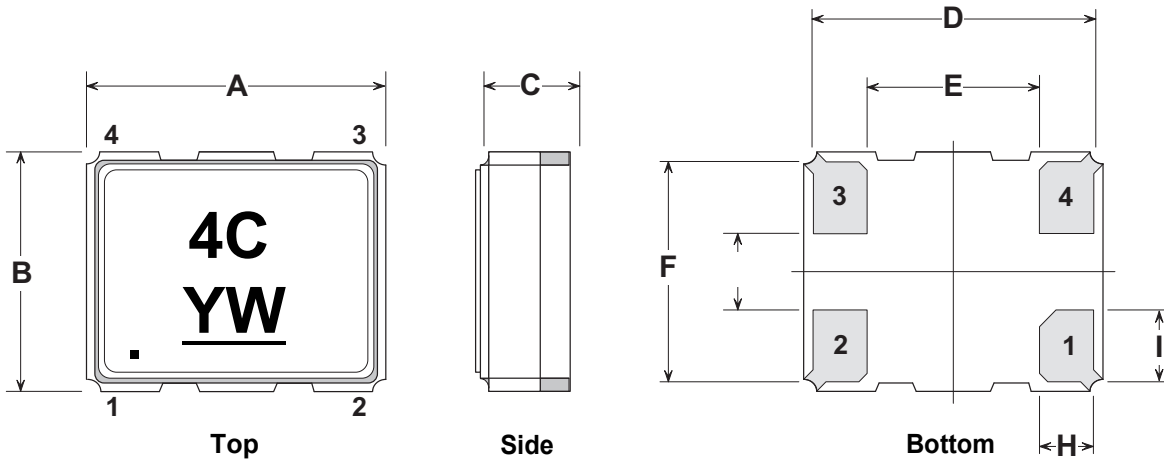
Connection	Terminals
Ground	1
Ground	2
TCXO Output	3
V_{DD}	4

 **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.

4 Terminal Surface Mount Seam Welded Case 2.5 x 2.0 mm Nominal Footprint



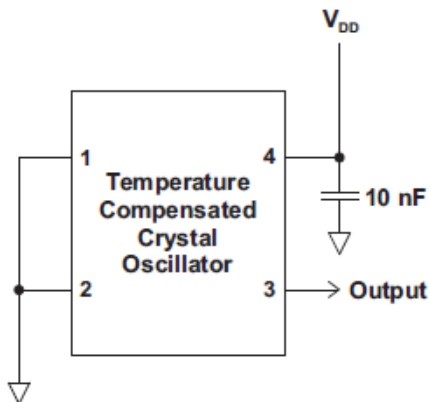
**PCB Land Pattern
(Top View)**

Case and PCB Land Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.30	2.50	2.70	0.091	0.098	0.106
B	1.80	2.00	2.20	0.071	0.079	0.087
C	-	-	0.80	-	-	0.031
D	-	2.39	-	-	0.094	-
E	-	1.45	-	-	0.057	-
F	-	1.89	-	-	0.074	-
G	-	0.65	-	-	0.026	-
H	-	0.47	-	-	0.019	-
I	-	0.62	-	-	0.024	-
J	-	2.97	-	-	0.117	-
K	-	1.25	-	-	0.049	-
L	-	2.45	-	-	0.096	-
M	-	0.45	-	-	0.018	-

Case Materials

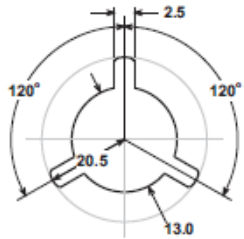
Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic



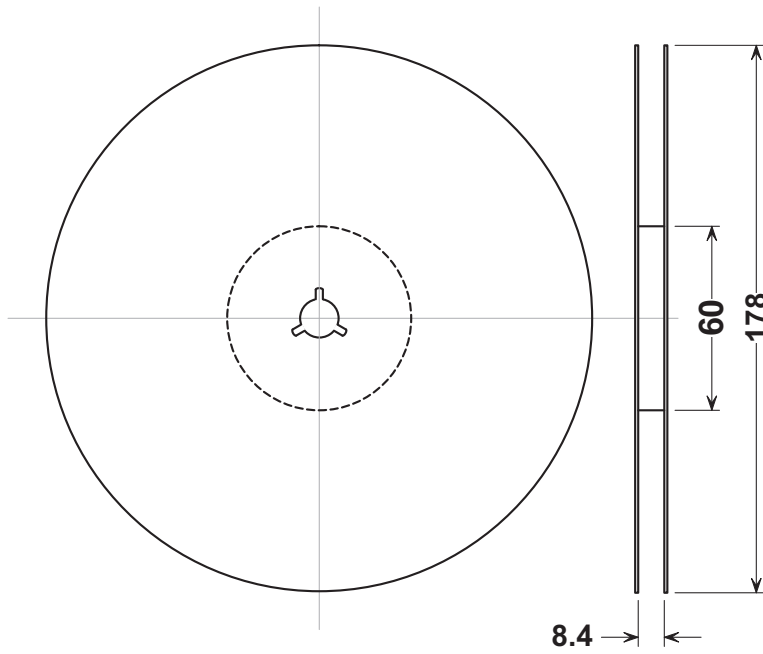
TCXO Application Circuit

Reel Dimensions

Tape and Reel Standard per ANSI/EIA-481

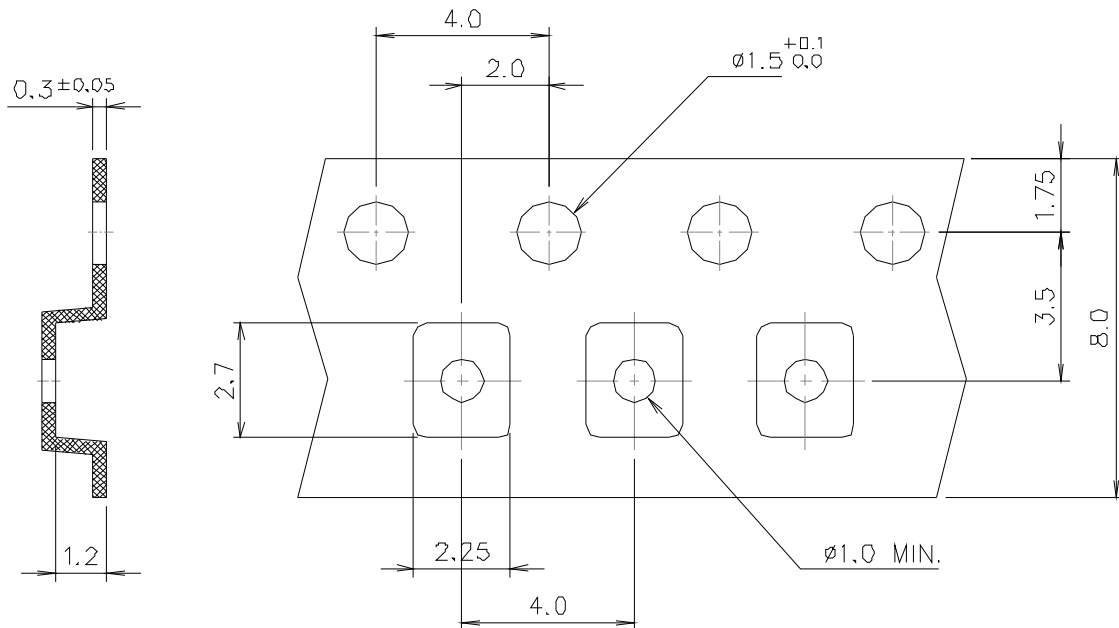


Reel Hub Detail



Dimensions in mm

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.

