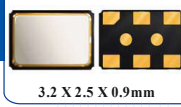


# VOLTAGE CONTROLLED TEMPERATURE COMPENSATED SMD CRYSTAL OSCILLATOR

ASTX-11, ASVTX-11



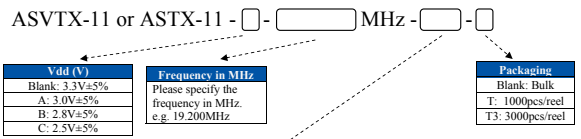
- FEATURES:**
- 3.2 x 2.5 x 0.9mm miniature package
  - Low current consumption 1.5mA for 19.68MHz
  - Vc function corresponds to PLL circuits
  - Suitable for RoHS reflow profile

- APPLICATIONS:**
- Cellular and cordless phones
  - Standard OSC for exact equipment
  - Mobile communication equipment
  - Portable radio equipment and music player.
  - PLL

**STANDARD SPECIFICATIONS:**

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	10	-----	40	MHz	
Standard Frequencies:	10, 13, 14.4, 16.3676, 19.2, 19.8, 20, 24.5535, 26, 33.6, 38.4, 39, 40			MHz	
Operating Temperature:	-30	-----	+75	°C	
Storage Temperature:	-40	-----	+85	°C	
Frequency Stability Δf/f0 vs					
Tolerance (@+25°C) at shipping:	-0.5	-----	+0.5	ppm	
Tolerance (@+25°C) after reflow:	-1.5	-----	+1.5	ppm	
Temperature (ref. to +25°C):	-2.5	-----	+2.5		See option (Table 1)
Supply Voltage Change (Vdd±5%):	-0.2	-----	+0.2		
Load Change (ZL±10%):	-0.2	-----	+0.2		
Supply Voltage (Vdd):	+3.135	+3.3	+3.465	V	See option
Aging (first year @+25°C):	-1.0	-----	+1.0	ppm	
Supply Current (Icc):	-----	-----	1.5	mA	-19.68MHz
	-----	-----	2.0	mA	-32.00MHz
	-----	-----	2.5	mA	-40.00MHz
Voltage Control Function (for ASVTX-11)	+0.5	+1.5	+2.5	Vdc	
Control Voltage (Vcc):	±8			ppm	
Frequency Tuning Range:	Positive				
Frequency Tuning Transition:	500	650		kΩ	
Input Impedance:					
Output					
Voltage:	0.8			Vp-p	
Load:		10kΩ/10pF			
Waveform:		Clipped Sine Wave			
Phase Noise:		-135		dBc	@1kHz

**OPTIONS & PART IDENTIFICATION: (Left blank if standard)**



**Table 1: Frequency Stability vs Operating Temperature**

	+2ppm	+2.5ppm	+3ppm	+4ppm	+5ppm
0°C ~ +50°C	D20	D25	D30	D40	D50
-10°C ~ +60°C	E20	E25	E30	E40	E50
-20°C ~ +70°C	F20	F25	F30	F40	F50
-30°C ~ +70°C	G20	G25	G30	G40	G50
-30°C ~ +85°C	H20	Std.(Blank)	H30	H40	H50
-40°C ~ +85°C	I20	I25	I30	I40	I50



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# VOLTAGE CONTROLLED TEMPERATURE COMPENSATED SMD CRYSTAL OSCILLATOR

ASTX-11, ASVTX-11

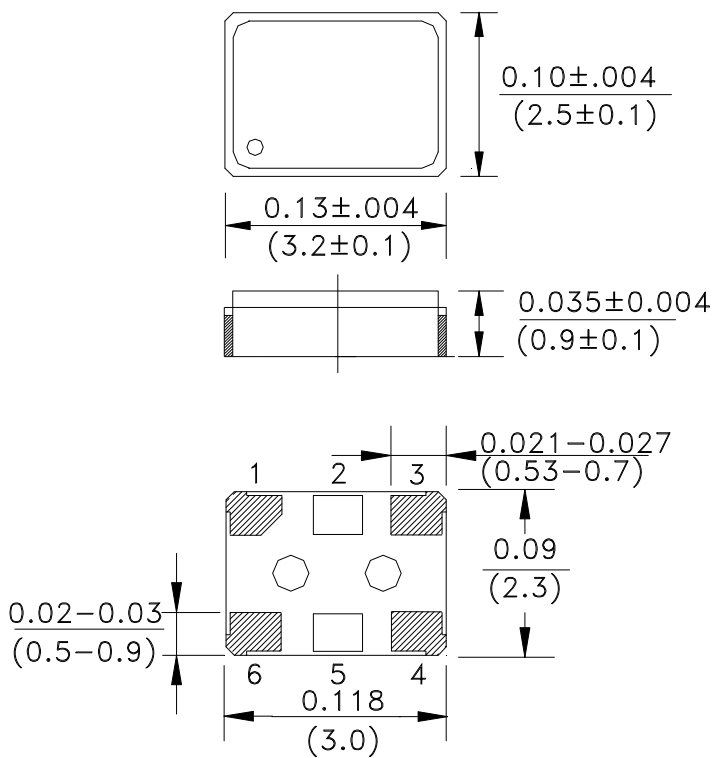


RoHS  
Compliant

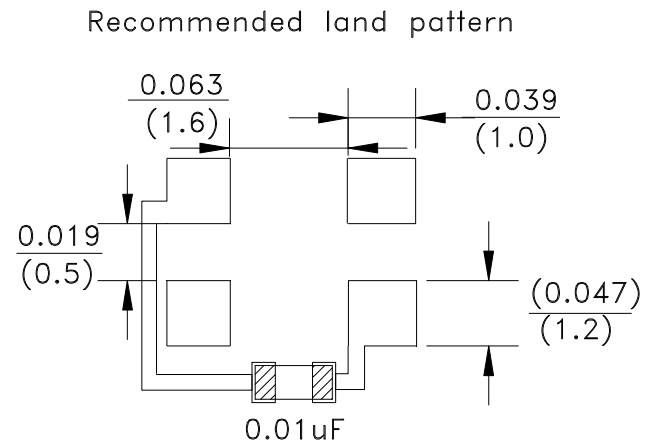


3.2 X 2.5 X 0.9mm

## OUTLINE DRAWING:



Dimensions: Inches (mm)



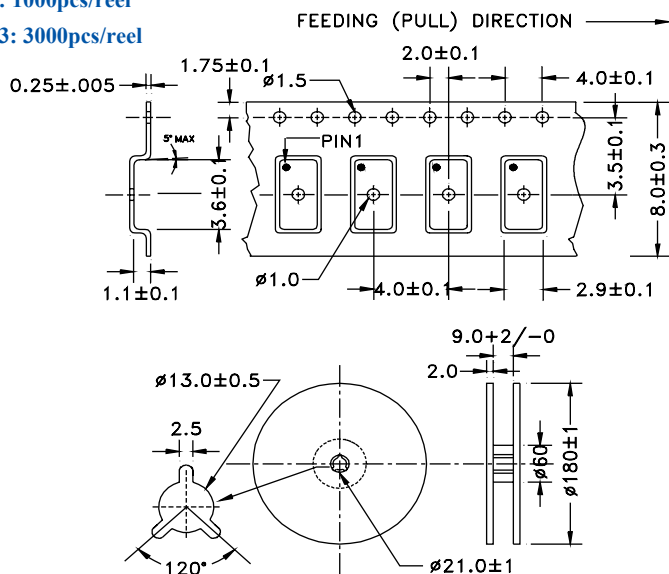
**Note 1:** It is not recommended that paths go underneath the oscillator. If needed, please use multi-layer PCB board or resist coating.

**Note 2:** Recommend using an approximately 0.01µF bypass capacitor between Pin 3 and 6.

Pin	Function	
	ASVTX-11	ASTX-11
1	Vcc	GND
2	N.C.	
3	GND	
4	Output	
5	N.C.	
6	Vdd	

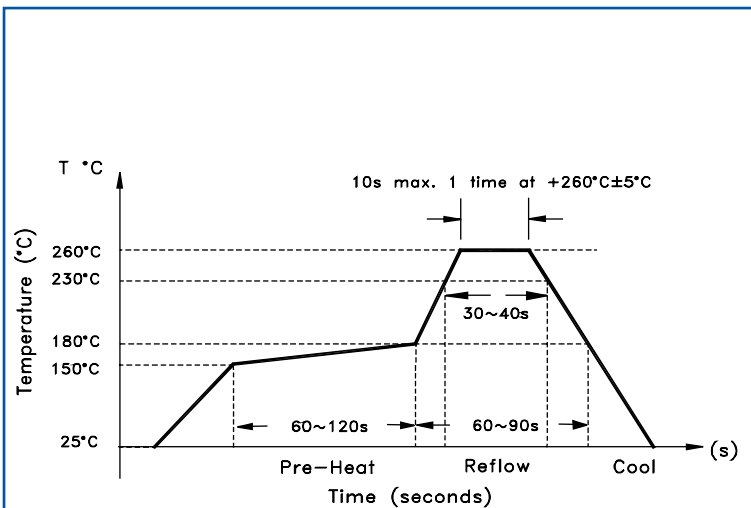
## TAPE & REEL:

T: 1000pcs/reel  
T3: 3000pcs/reel



Dimensions: mm

## REFLOW PROFILE:



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