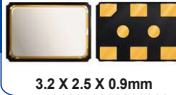


VOLTAGE CONTROLLED TEMPERATURE COMPENSATED SMD CRYSTAL OSCILLATOR

ASTX-11, ASVTX-11



Pb RoHS Compliant

3.2 X 2.5 X 0.9mm

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, 24.5635, 26, 33.6, 38.4, 39, 40			MHz	
Operating Temperature:	-30	----	+75	°C	
Storage Temperature:	-40	----	+85	°C	
Frequency Stability $\Delta f/f_0$ vs Tolerance (@+25°C):	-0.5	----	+0.5	ppm	See option (Tabel 1)
Temperature (ref. to +25°C):	-2.5	----	+2.5		
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		
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	650		kΩ	
Frequency Tuning Transition:	500				
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)

ASVTX-11 or ASTX-11 - - MHz - -

Vdd (V)
Blank: 3.3V±5%
A: 3.0V±5%
B: 2.8V±5%
C: 2.5V±5%

Frequency in MHz
Please specify the frequency in MHz. e.g. 19.200MHz

Packaging
Blank: Bulk
T: 1000pcs/reel
T3: 3000pcs/reel

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



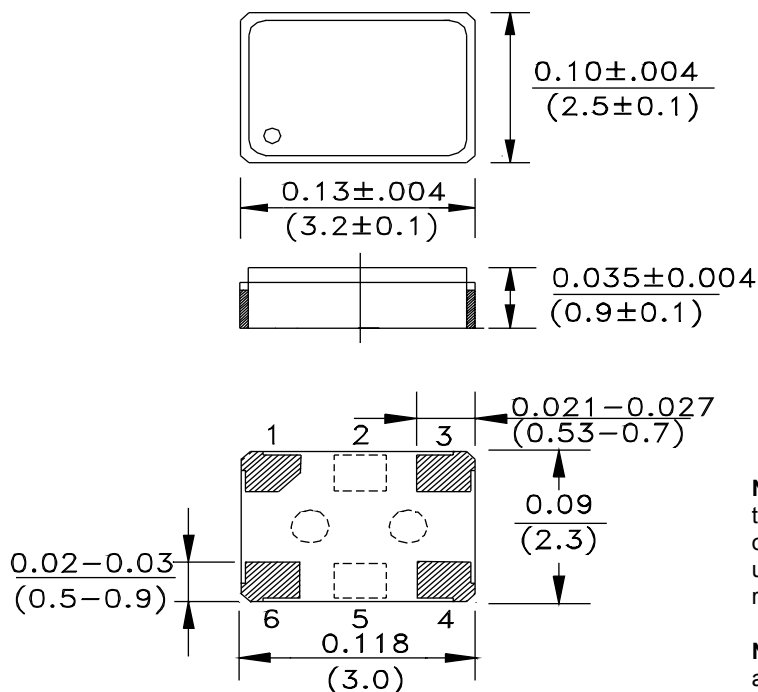
3.2 X 2.5 X 0.9mm

ASTX-11, ASVTX-11



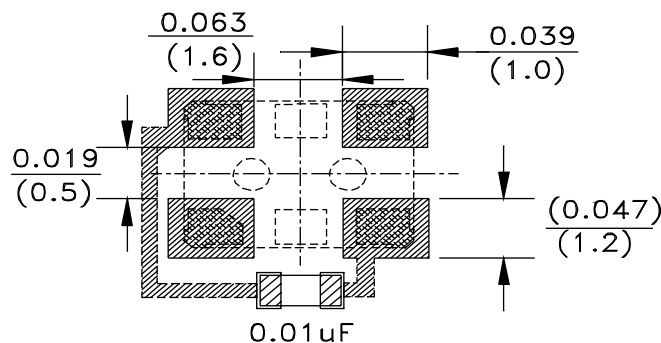
RoHS
Compliant

OUTLINE DRAWING:



Dimensions: Inches (mm)

Recommended land pattern



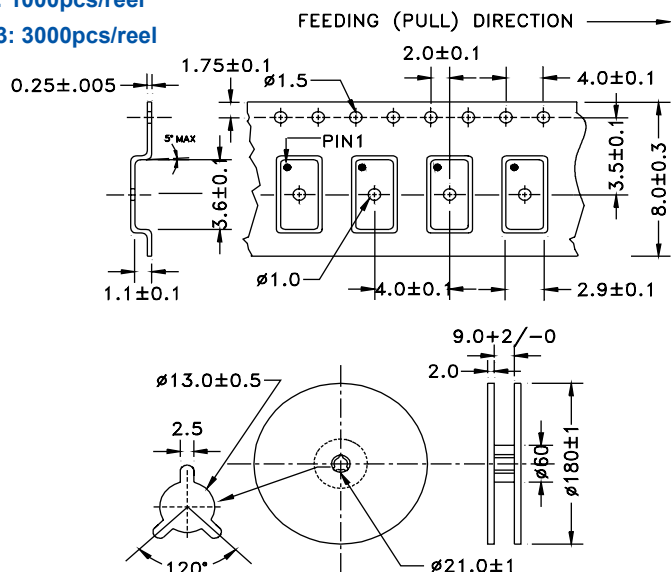
Note 1: It is not recommended that paths go underneath the oscillator. If needed, please use multi-layer PCB board or resist coating.

Note 2: Recommend using an approximately $0.01 \mu F$ bypass capacitor between Pin 3 and 6.

PIN	FUNCTION	
	VCTCXO	TCXO
1	Vcc	GND
2	N.C.	
3	GND	
4	OUTPUT	
5	N.C.	
6	Vdd	

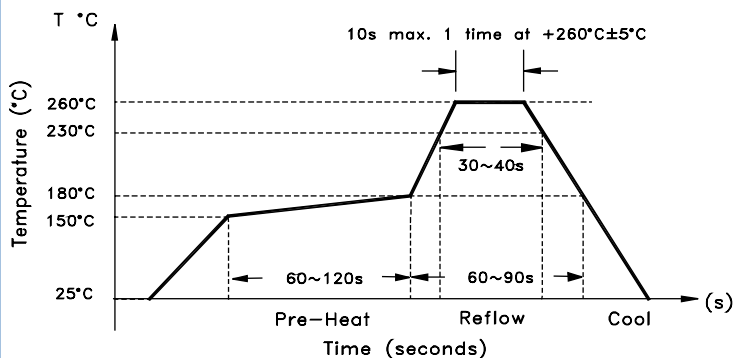
TAPE & REEL:

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



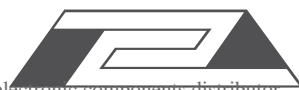
Dimensions: mm

REFLOW PROFILE:



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