

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

➤ **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 $\Delta f/f_0$ 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 (Tabel 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)					
Control Voltage (Vcc):	+0.5	+1.5	+2.5	Vdc	
Frequency Tuning Range:	±8			ppm	
Frequency Tuning Transition:	Positive				
Input Impedance:	500	650		kΩ	
Output					
Voltage:	0.8			Vp-p	
Load:	10kΩ/10pF				
Waveform:	Clipped Sine Wave				
Phase Noise:		-135		dBc	@1kHz





OPTIONS & PART IDENTIFICATION:

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

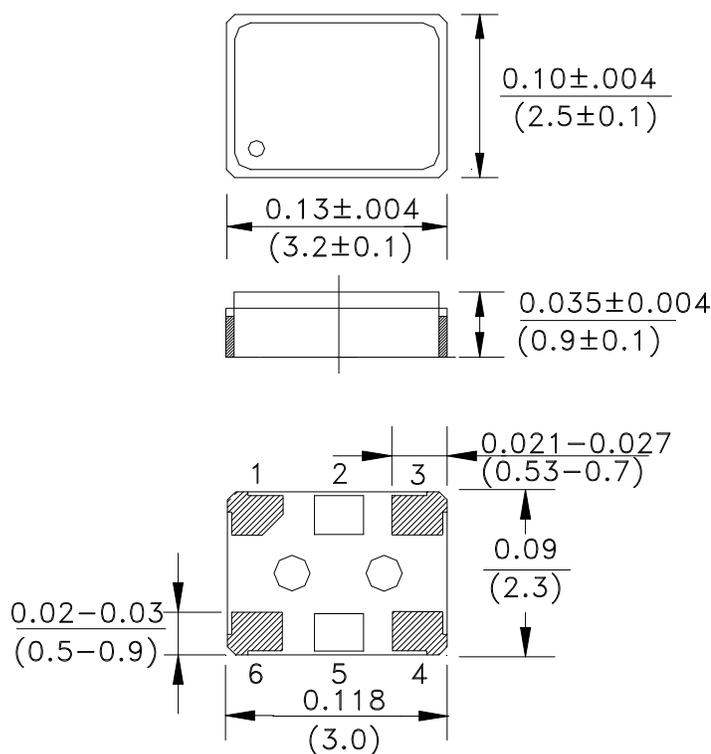
Packaging
Blank: Bulk
T: 1000pcs/reel
T3: 3000pcs/reel

Table 1: Frequency Stability vs Operating Temperature

	±1.5ppm	±2ppm	±2.5ppm	±3ppm	±4ppm	±5ppm
0°C ~ +50°C	D15	D20	D25	D30	D40	D50
-10°C ~ +60°C	E15	E20	E25	E30	E40	E50
-20°C ~ +70°C	F15	F20	F25	F30	F40	F50
-30°C ~ +70°C	G15	G20	G25	G30	G40	G50
-30°C ~ +75°C	H15	H20	Std.(Blank)	H30	H40	H50
-40°C ~ +85°C	I15	I20	I25	I30	I40	I50

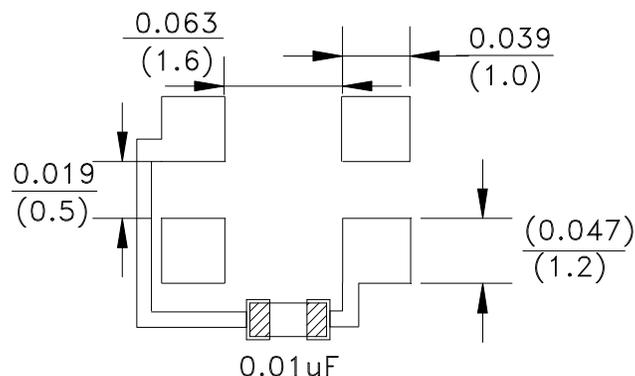
OUTLINE DRAWING:

6-pad package (Date Code prior to March 2014):



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.

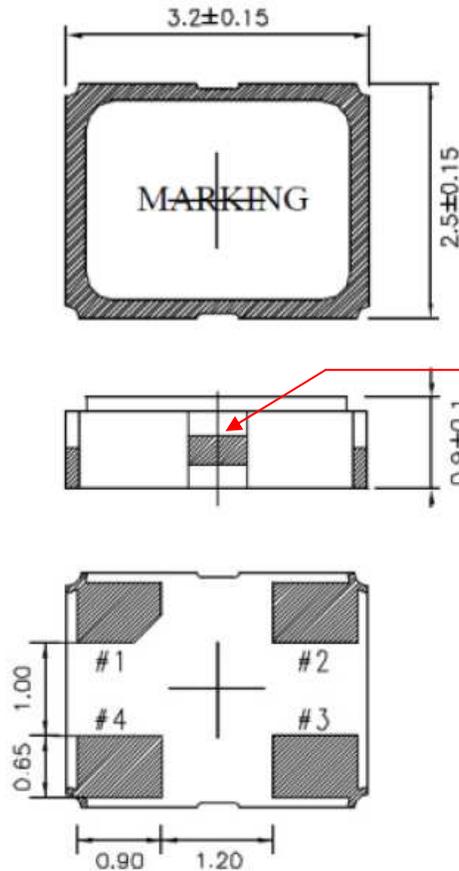
Note 2: Recommend using an approximately 0.01µF bypass capacitor between Pin 3 and 6.

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



OUTLINE DRAWING:

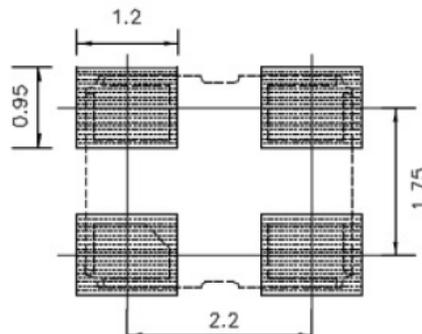
4-pad package (Date Code March 2014 and later):



Due to material availability, 1 or 2 side pads may appear on the side of the package. The variation in no way affects the electrical performance of the product.

Pin	Function	
	ASVTX-11	ASTX-11
1	Vc	GND
2	GND	
3	Output	
4	Vdd	

Recommended Land Pattern



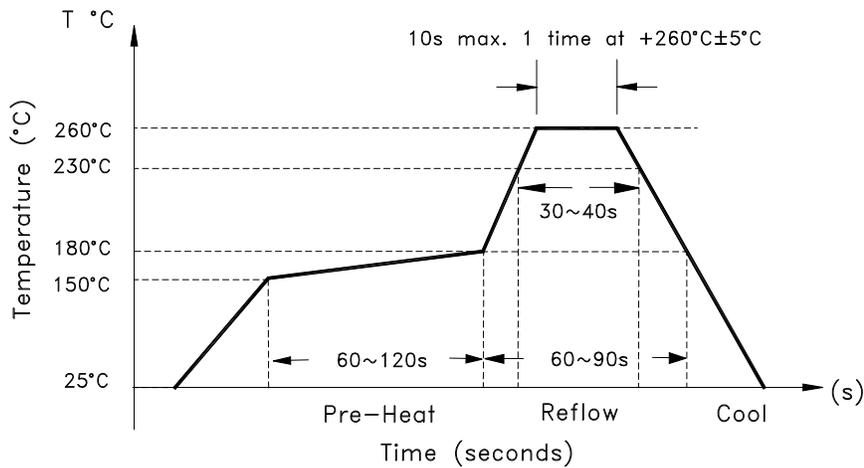
Note 1: It is not recommended that paths go underneath the oscillator. If needed, please use multi-layer PCB board or resist coating.

Note 2: Recommend using an approximately $0.01 \mu\text{F}$ bypass capacitor between Pin 2 and 4.

Dimensions: mm

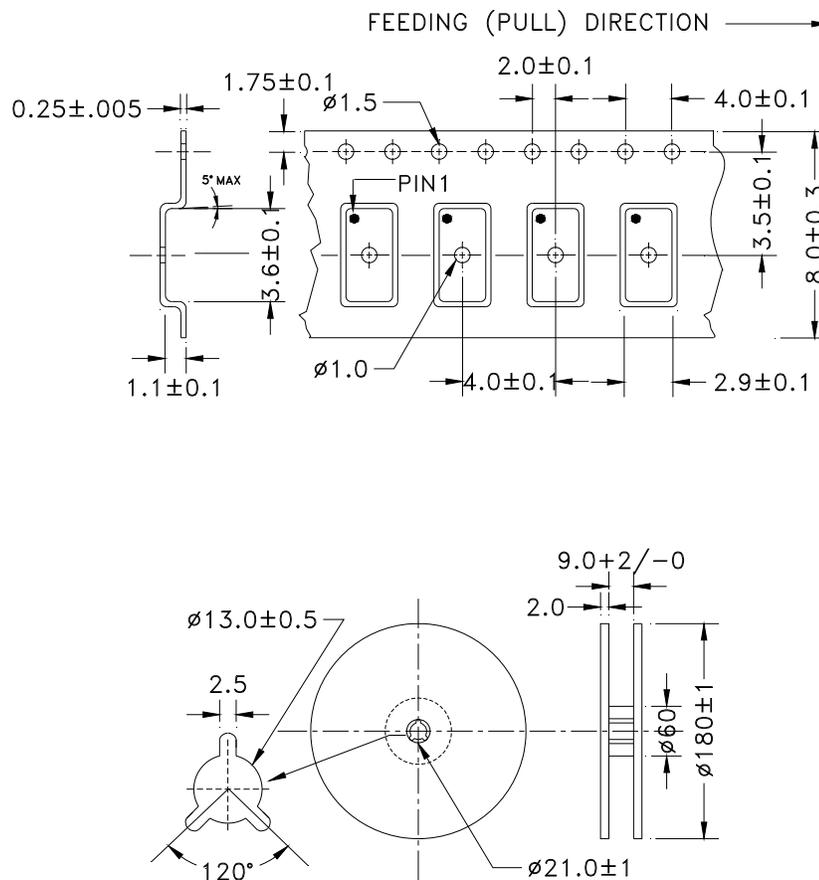


REFLOW PROFILE:



TAPE & REEL:

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



Dimensions: mm

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.