HCMOS OUTPUT SMD TCXO

ASTX-H11

ASTX-H11

ESD Sensitive

Pb **RoHS/RoHS II compliant**

3.2 x 2.5 x 1.0mm

Moisture Sensitivity Level (MSL)–1

▷ **FEATURES:**
- HCMOS Output
- Compact and low in height
- Low current consumption; IR reflow possible
- Suitable for high-density SMT

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

▷ **STANDARD SPECIFICATIONS:**

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		2.500		55.000	MHz	
Standard Frequencies		5, 10, 12, 16, 20, 24, 32, 40, 44			MHz	
Operating Temperature		-30		+75	°C	
Storage Temperature:		-40		+125	°C	
Frequency Stability Δf/f0 vs Tolerance (@+25°C)		-2.0		+2.0	ppm	1 hr after reflow
vs Temperature (ref. to +25°C)		-2.5		+2.5		See option (Table 1)
vs Supply Voltage Change (Vdd±5%)		-0.2		+0.2		
vs Load Change (ZL±10%)		-0.2		+0.2		
vs Aging (first year @+25°C)		-1.0		+1.0		
Supply Voltage (Vdd)		+2.97	+3.3	+3.63	V	See option
Supply Current (Icc)				4.0	mA	4~10MHz
				4.8		~20MHz
				5.5		~30MHz
				6.0		~40MHz
				7.0		~54MHz
Rise and Fall Time (Tr/Tf)				5	ns	10%-90%Vdd
Symmetry		45		55	%	@1/2 Vdd
Output Voltage	V_{OH}	90%Vdd			V	
	V_{OL}			10%Vdd		
Load				15	pF	
Waveform		HCMOS				
Phase Noise (Frequency dependant)			-130		dBc	@1kHz offset
			-158			@100kHz offset
Tri-state Function (Stand-by) :		"1" (VIH≥0.7 5*Vdd) or Open: Oscillation "0" (VIL<0.25*Vdd) : Hi Z			V	

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▷ **OPTIONS & PART IDENTIFICATION:**

(Left blank if standard)

ASTX-H11- ☐ - ☐☐☐ MHz - ☐☐ - ☐

Vdd (V)
Blank: 3.3V±10%
A: 2.8V±10%
B: 2.5V±10%

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

Packaging
Blank: Bulk
T: 1000pcs/reel

	±2.5ppm	**±3.0ppm**	**±4ppm**	**±5ppm**
0°C ~ +50°C	D25	D30	D40	D50
-10°C ~ +60°C	E25	E30	E40	E50
-0°C ~ +70°C	F25	F30	F40	F50
-20°C ~ +75°C	G25	G30	G40	G50
-30°C ~ +75°C	Blank(STD)	H30	H40	H50
-40°C ~ +85°C	I25	I30	I40	I50

Table 1

▷ **OUTLINE DIMENSIONS:**

3.2±0.1

2.5±0.1

MARKING

1.0±0.1

#1   #2
#4   #3

0.65
1.0
0.9   1.2
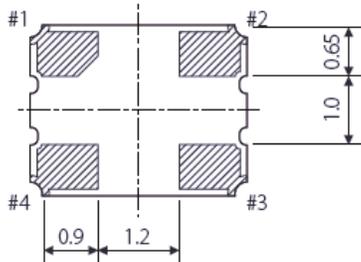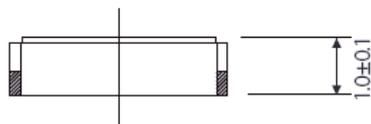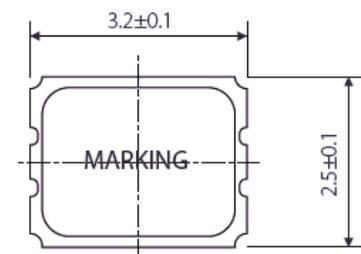
Recommended Land Pattern

1.3   1.0   1.3

1.1
0.8
1.1
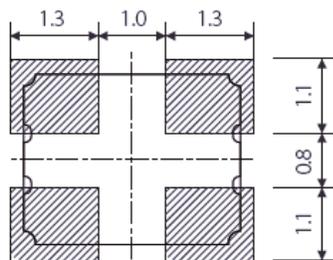
Tri-state pin	**Output**
High or floating	Active
Low	Hi-impedance

Note: Recommend using an approximately 0.01µF bypass capacitor between Pin 2 and 4.

PIN	FUNCTION
1	Tri-state
2	GND
3	Output
4	Vdd

Dimensions: mm

ABRACON® LLC
The Power of Linking Together

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▷ **REFLOW PROFILE:**
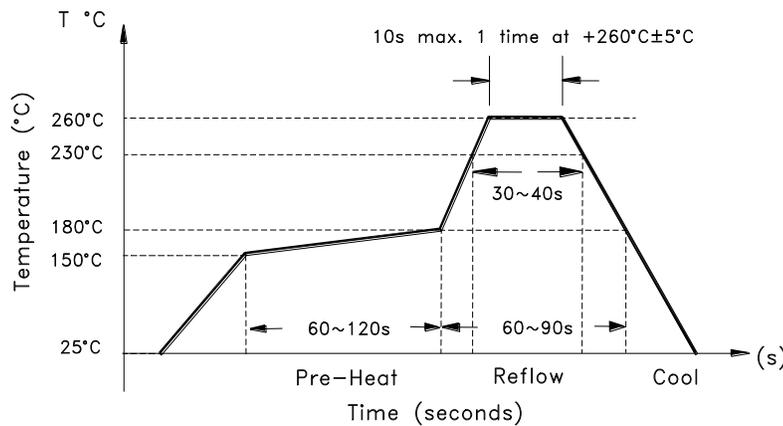
▷ **TAPE & REEL:**

T: 1,000pcs/reel

Dimensions: mm

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

ASTX-H11-10.000Z-I25-T ASTX-H11-10.000Z-T ASTX-H11-12.000Z-I25-T ASTX-H11-12.000Z-T ASTX-H11-13.000Z-I25-T ASTX-H11-13.000Z-T ASTX-H11-16.000Z-I25-T ASTX-H11-16.000Z-T ASTX-H11-19.200Z-I25-T ASTX-H11-19.200Z-T ASTX-H11-19.680Z-I25-T ASTX-H11-19.680Z-T ASTX-H11-20.000Z-I25-T ASTX-H11-20.000Z-T ASTX-H11-24.000Z-I25-T ASTX-H11-24.000Z-T ASTX-H11-26.000Z-I25-T ASTX-H11-26.000Z-T ASTX-H11-32.000Z-I25-T ASTX-H11-32.000Z-T ASTX-H11-40.000Z-I25-T ASTX-H11-40.000Z-T ASTX-H11-44.000Z-I25-T ASTX-H11-44.000Z-T ASTX-H11-5.000Z-I25-T ASTX-H11-5.000Z-T ASTX-H11-B-10.000Z-I25-T ASTX-H11-B-10.000Z-T ASTX-H11-B-12.000Z-I25-T ASTX-H11-B-12.000Z-T ASTX-H11-B-13.000Z-I25-T ASTX-H11-B-13.000Z-T ASTX-H11-B-16.000Z-I25-T ASTX-H11-B-16.000Z-T ASTX-H11-B-19.200Z-I25-T ASTX-H11-B-19.200Z-T ASTX-H11-B-19.680Z-I25-T ASTX-H11-B-19.680Z-T ASTX-H11-B-20.000Z-I25-T ASTX-H11-B-20.000Z-T ASTX-H11-B-24.000Z-I25-T ASTX-H11-B-24.000Z-T ASTX-H11-B-26.000Z-I25-T ASTX-H11-B-26.000Z-T ASTX-H11-B-32.000Z-I25-T ASTX-H11-B-32.000Z-T ASTX-H11-B-40.000Z-I25-T ASTX-H11-B-40.000Z-T ASTX-H11-B-44.000Z-I25-T ASTX-H11-B-44.000Z-T ASTX-H11-B-5.000Z-I25-T ASTX-H11-B-5.000Z-T ASTX-H11-10.000MHZ-I25-T ASTX-H11-10.000MHZ-T ASTX-H11-12.000MHZ-T ASTX-H11-16.000MHZ-T ASTX-H11-20.000MHZ-T ASTX-H11-24.000MHZ-T ASTX-H11-26.000MHZ-T ASTX-H11-24.576MHZ-T ASTX-H11-25.000MHZ-T ASTX-H11-27.000MHZ-T ASTX-H11-16.000MHZ-I25-T ASTX-H11-19.200MHZ-I25-T ASTX-H11-19.200MHZ-T ASTX-H11-19.680MHZ-I25-T ASTX-H11-19.680MHZ-T ASTX-H11-B-44.000MHZ-I25-T ASTX-H11-B-44.000MHZ-T ASTX-H11-B-5.000MHZ-I25-T ASTX-H11-B-5.000MHZ-T ASTX-H11-12.000MHZ-I25-T ASTX-H11-B-26.000MHZ-T ASTX-H11-B-32.000MHZ-I25-T ASTX-H11-B-32.000MHZ-T ASTX-H11-B-40.000MHZ-I25-T ASTX-H11-B-40.000MHZ-T ASTX-H11-B-20.000MHZ-T ASTX-H11-B-24.000MHZ-I25-T ASTX-H11-B-24.000MHZ-T ASTX-H11-B-26.000MHZ-I25-T ASTX-H11-13.000MHZ-T ASTX-H11-13.000MHZ-I25-T ASTX-H11-B-16.000MHZ-T ASTX-H11-B-19.200MHZ-I25-T ASTX-H11-B-19.200MHZ-T ASTX-H11-B-19.680MHZ-I25-T ASTX-H11-B-19.680MHZ-T ASTX-H11-B-20.000MHZ-I25-T ASTX-H11-B-10.000MHZ-T ASTX-H11-B-12.000MHZ-I25-T ASTX-H11-B-12.000MHZ-T ASTX-H11-B-13.000MHZ-I25-T ASTX-H11-B-13.000MHZ-T ASTX-H11-B-16.000MHZ-I25-T ASTX-H11-40.000MHZ-T ASTX-H11-44.000MHZ-I25-T ASTX-H11-44.000MHZ-T ASTX-H11-5.000MHZ-I25-T ASTX-H11-5.000MHZ-T