

TIGHT STABILITY INDUSTRIAL GRADE CRYSTAL OSCILLATOR

ASET SERIES



ESD Sensitive



RoHS/RoHS II compliant



3.2 x 2.5 x 1.2mm

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

FEATURES:

- Highly reliable seam-sealed package
- Low current consumption 7mA
- Low phase noise and jitter
- Industrial grade tight temperature stability available ($\pm 10\text{ppm}$ / -40 to $+85^\circ\text{C}$)
- Fast start-up time 0.2ms typical
- CMOS output with Tri-state function

APPLICATIONS:

- Home networking by AC socket
- Wireless LAN
- Mobile communications
- PLC modem
- WiMax

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	4		54	MHz	
Standard Frequencies	5, 10, 12, 16, 20, 24, 26, 27, 32, 40, 44			MHz	
Operating Temperature	-40		+85	$^\circ\text{C}$	
Storage Temperature	-40		+85	$^\circ\text{C}$	
Overall Frequency Stability*	-15		+15	ppm	See options
Supply Voltage (Vdd)	+2.7	3.0	+3.3	V	See options
Supply Current (Idd)			7.0	mA	
Stand-by Current			10	μA	
Symmetry	45		55	%	@ 1/2Vdd
Rise and Fall Time (Tr/Tf)			5.0	ns	10%Vdd-90%Vdd
Output Load			15	pF	CMOS
Output Voltage (VOH)	0.9* Vdd			V	
Output Voltage (VOL)			0.1* Vdd	V	
Start-up Time		0.2	3.0	ms	
RMS Jitter		3.0		ps	
Tri-state function	"1" ($V_{IH} \geq 0.7 \cdot V_{dd}$) or Open: Oscillation "0" ($V_{IH} < 0.3 \cdot V_{dd}$) : Hi Z				
Phase Noise (@10kHz offset)		-143		dBc/Hz	
Aging@+25 $^\circ\text{C}$	-2		+2	ppm	First year
	-7		+7		10 years

* Overall frequency stability includes initial tolerance @ +25 $^\circ\text{C}$, and temperature stability

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASET- - MHz - -

Supply Voltage

Blank: 3.0 $\pm 10\%$
A: 2.7 $\pm 10\%$
B: 3.3 $\pm 10\%$
C: 2.8 $\pm 10\%$
D: 2.5 $\pm 10\%$

Frequency in MHz

Please specify the frequency in MHz.
e.g. 24.000MHz

Overall Freq. Stability

Blank: $\pm 15\text{ppm}$
Y: $\pm 10\text{ppm}$
R7*: $\pm 7\text{ppm}$
R5*: $\pm 5\text{ppm}$

Packaging

Blank: Bulk
T: Tape & Reel

*Contact Abracon for availability



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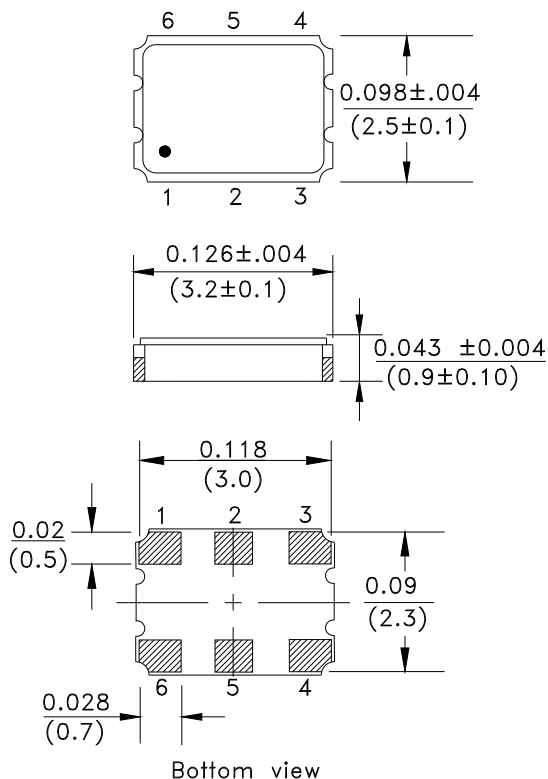


3.2 x 2.5 x 1.2mm

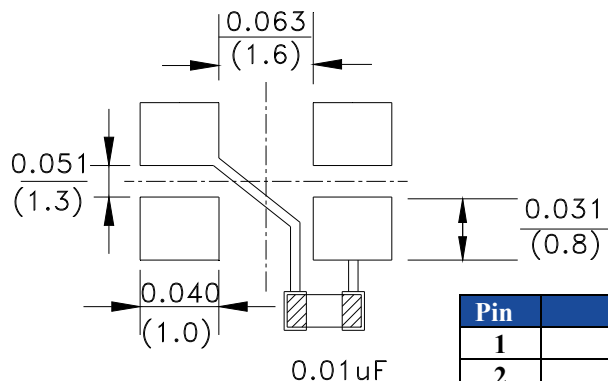


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OUTLINE DRAWING:



Recommended land pattern



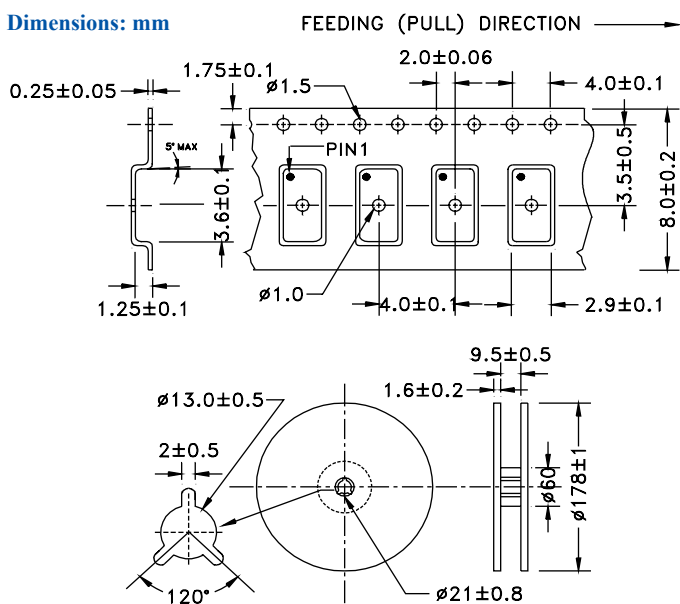
Pin	Function
1	OE
2	NC
3	GND
4	Output
5	NC
6	Vdd

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 3 and 6.

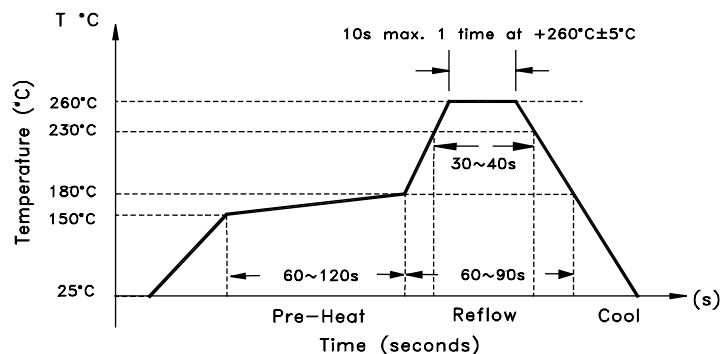
Dimensions: Inches (mm)

TAPE & REEL: T= tape and reel (1,000 pcs/reel)

Dimensions: mm



REFLOW PROFILE



Need a test socket for the ASET Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#). P/N: AXS-3225-04-05

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