

# TIGHT STABILITY INDUSTRIAL GRADE CRYSTAL OSCILLATOR



3.2 x 2.5 x 1.2mm

## ASET SERIES



**ESD Sensitive**



**RoHS/RoHS II compliant**

**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

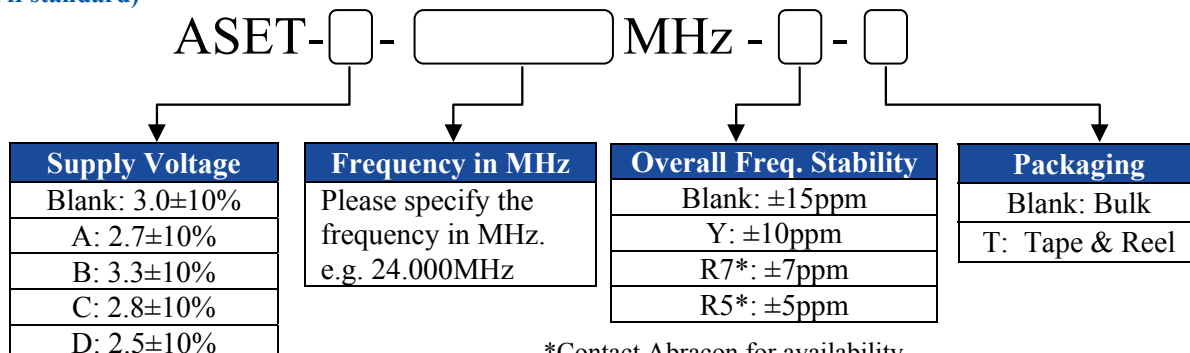
### STANDARD SPECIFICATIONS:

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	$\mu\text{A}$	
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" ( $V_{IH} \geq 0.7 * V_{dd}$ ) or Open: Oscillation "0" ( $V_{IH} < 0.3 * V_{dd}$ ): 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)



\*Contact Abracon for availability

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3.2 x 2.5 x 1.2mm

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**Pb** RoHS/RoHS II compliant

### OUTLINE DRAWING:

Top view dimensions: 0.098±.004 (2.5±0.1), 0.126±.004 (3.2±0.1), 0.043 ±0.004 (0.9±0.10)

Bottom view dimensions: 0.118 (3.0), 0.02 (0.5), 0.028 (0.7), 0.09 (2.3)

Side view dimensions: 0.051 (1.3), 0.040 (1.0), 0.031 (0.8)

Recommended land pattern dimensions: 0.063 (1.6), 0.01uF

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)

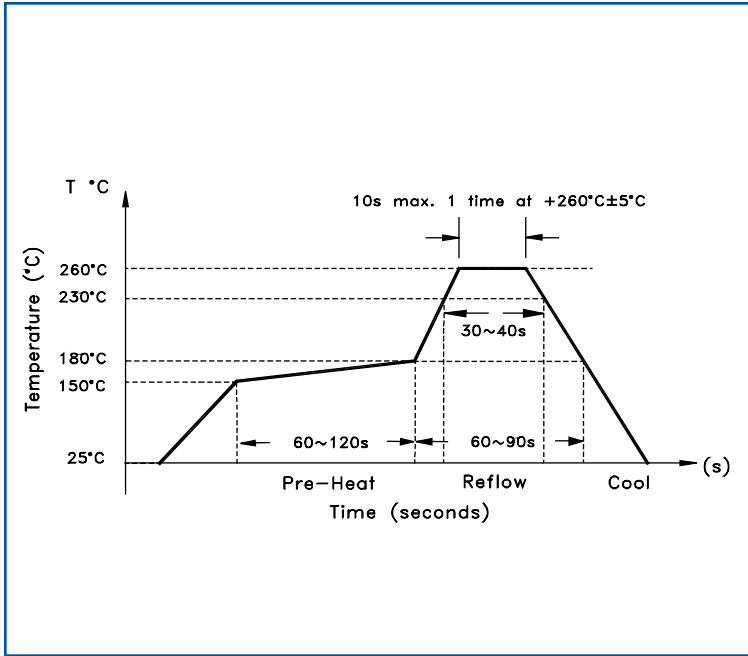
### TAPE & REEL: T= tape and reel (1,000 pcs/reel)

### REFLOW PROFILE

Dimensions: mm

FEEDING (PULL) DIRECTION →

Dimensions: 0.25±0.05, 1.75±0.1, 2.0±0.06, 4.0±0.1, 3.5±0.5, 8.0±0.2, 1.25±0.1, 3.6±0.1, 5° MAX, PIN 1, 4.0±0.1, 2.9±0.1, 9.5±0.5, 1.6±0.2, 120°, 2±0.5, 13.0±0.5, 21±0.8, 60, 178±1



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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