

# TIGHT STABILITY INDUSTRIAL GRADE CRYSTAL OSCILLATOR



5.0 x 3.2 x 1.05mm

ASFLT 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
- Low phase noise and jitter
- Industrial grade tight temperature stability ( $\pm 5.0\text{ppm} / -40$  to  $+85^\circ\text{C}$ )
- Fast start-up time
- 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, 16.384, 19.44, 20, 24, 26, 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		
Start-up Time		0.2	3.0	ms	
RMS Jitter		3.0		ps	
Tri-state function (Stand-by)	Pin #1: "1" ( $V_{IH} \geq 0.7*V_{dd}$ ) or Open: Oscillation Pin #1: "0" ( $V_{IL} < 0.3*V_{dd}$ ): (Hi-Z)				
Phase Noise		-143		dBc/Hz	@10kHz offset
Aging@+25 $^\circ\text{C}$	-2		+2	ppm	First year
	-7		+7		10 years

➤ **OPTIONS AND PART IDENTIFICATION:**

(Left blank if standard)

ASFLT -  -  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. 16.384MHz

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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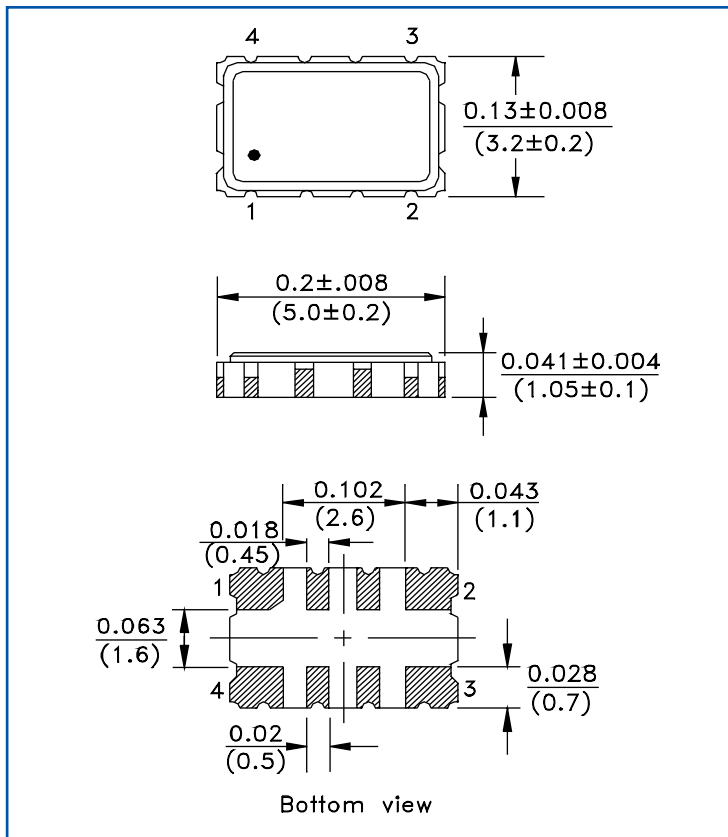


RoHS/RoHS II Compliant

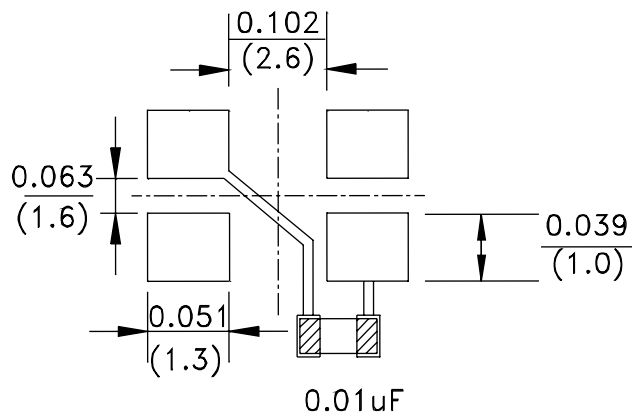


5.0 x 3.2 x 1.05mm

## OUTLINE DRAWING:



## Recommended land pattern



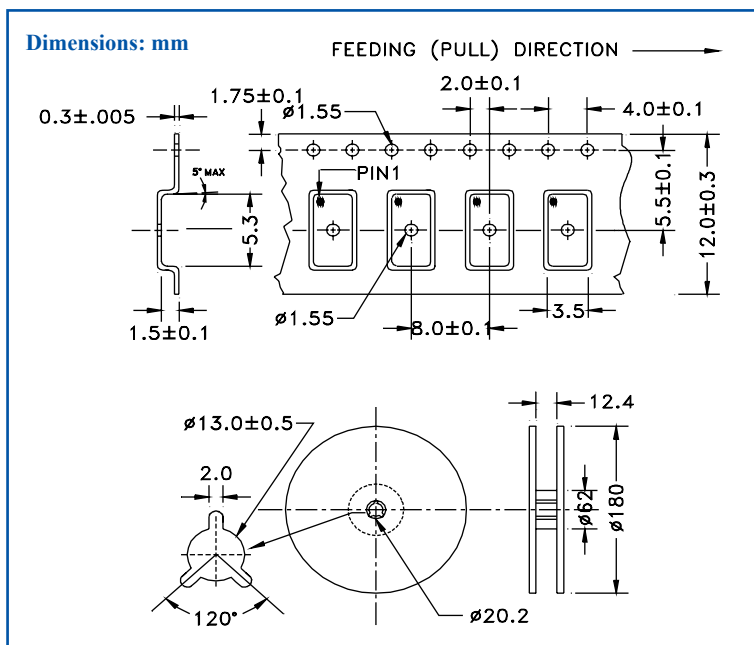
Resist layer is required on the path for the by-pass capacitor.

**Note :** It is recommended to use an approximately 0.01uF bypass capacitor between PIN 2 and 4.

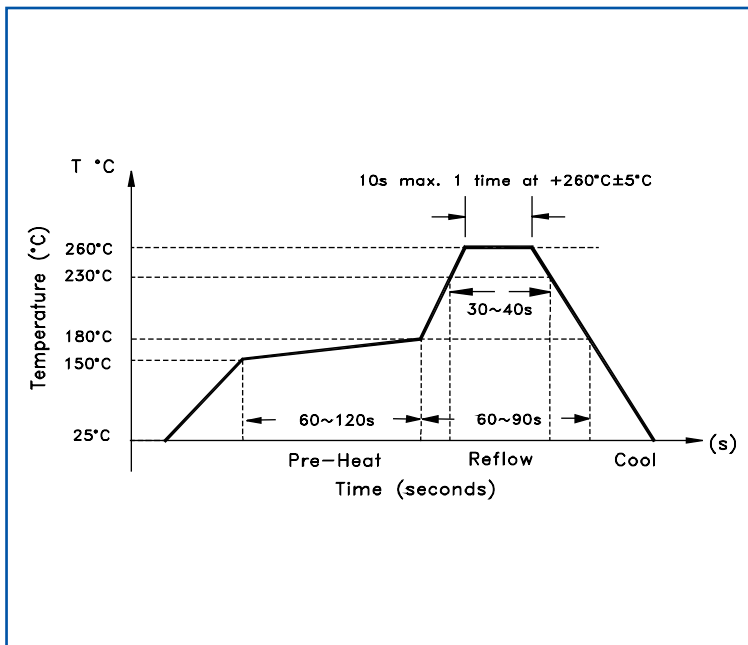
PIN	FUNCTION
1	CE
2	GND
3	Output
4	VDD

Dimensions: Inches (mm)

## TAPE & REEL: (1,000 pcs/reel)

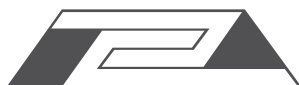


## REFLOW PROFILE:



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