

TIGHT STABILITY INDUSTRIAL GRADE CRYSTAL OSCILLATOR

ASFLT SERIES



ESD Sensitive



RoHS/RoHS II Compliant



5.0 x 3.2 x 1.05mm

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	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 (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°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





ASFLT SERIES



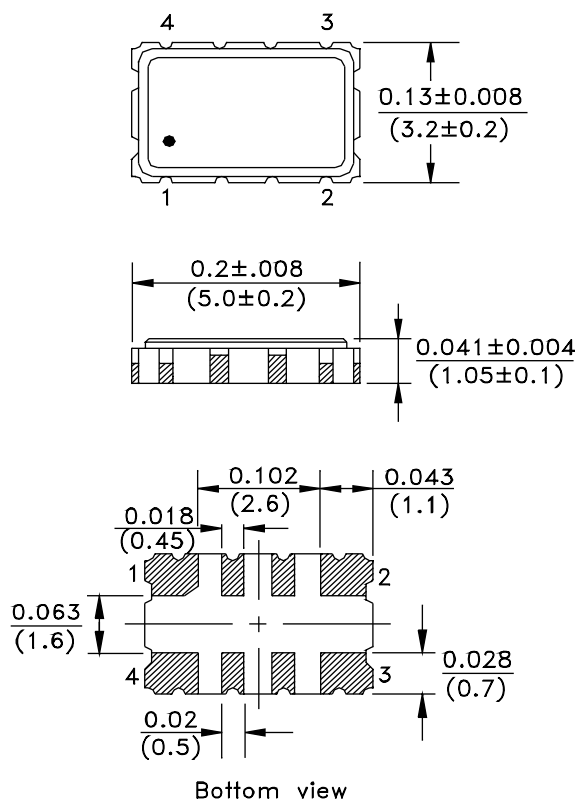
ESD Sensitive



RoHS/RoHS II Compliant

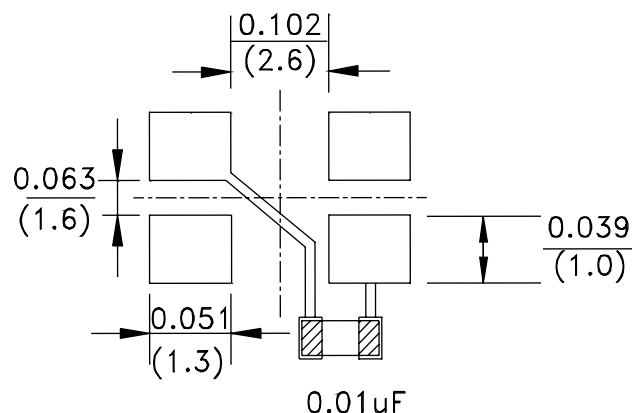
5.0 x 3.2 x 1.05mm

➤ OUTLINE DRAWING:



Bottom view

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.

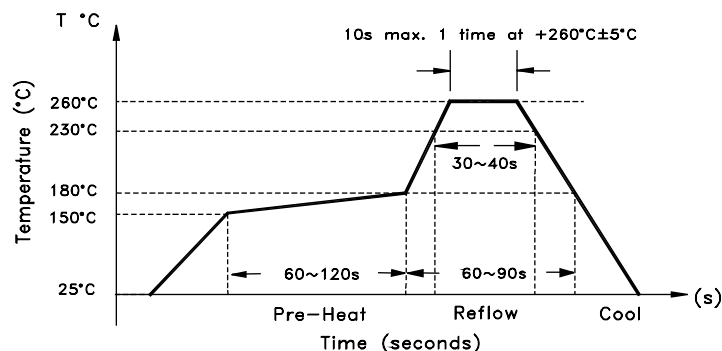
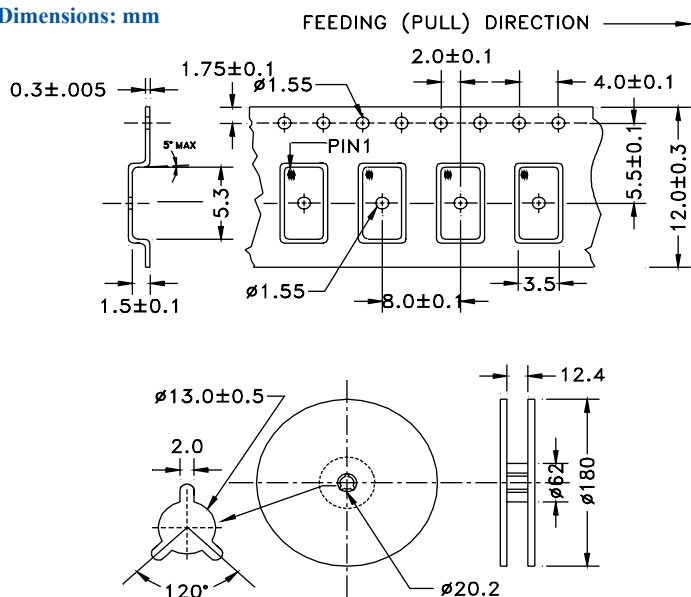
PIN	FUNCTION
1	CE
2	GND
3	Output
4	VDD

Dimensions: Inches (mm)

► **TAPE & REEL: (1,000 pcs/reel)**

REFLOW PROFILE:

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.