

TIGHT STABILITY INDUSTRIAL GRADE CRYSTAL OSCILLATOR

ASFLT SERIES



RoHS
Compliant



5.0 x 3.2 x 1.2mm

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

ABRACON P/N:	ASFLT Series
Frequency:	4.000MHz to 54.000MHz
Standard Frequencies:	5, 10, 12, 16, 20, 24, 32, 40, 44MHz
Output level:	CMOS
Operating temperature:	- 40°C to +85°C
Storage temperature:	- 40°C to + 85°C
Frequency Stability:	$\pm 10\text{ppm}$ (see option)
Frequency Stability vs. Vdd:	$\pm 0.5\text{ppm}$
Supply voltage (Vdd):	3.0Vdc $\pm 10\%$ (see option)
Supply Current (Idd):	7mA max. / 10 μA max. (Standby)
Symmetry:	45/55 % @ 50% Vdd
Rise and Fall Times(T_r/T_f):	5ns max. / 10%Vdd-90%Vdd
Output load:	15pF
Output Voltage:	VOH = 0.9*Vdd min. VOL = 0.1*Vdd max.
Tri State Function:	#1: NC OR "H" → Output enable #1: "L" → Output disable (Hi-Z)
Start-up-time:	0.2ms typ.
Aging per year:	$\pm 5\text{ ppm}$ @25°C
Fast enable time:	0.1ms typ.
Phase Noise (@ 10kHz offset):	-143dBc/Hz Typ.
Jitter:	1 σ 3ps typ.

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASFLT - - Frequency - -

P/N and Vdd (V)		Frequency	Freq. Stability		Packaging	
Blank	3.0 $\pm 10\%$	XX.XXXX MHz	Blank	$\pm 10\text{ ppm}$	Blank	Bulk
A	2.5 $\pm 10\%$		R7	$\pm 7\text{ ppm}$	T	Tape and Reel
B	3.3 $\pm 10\%$		R5	$\pm 5\text{ ppm}$		
C	2.8 $\pm 10\%$					



ASFLT



5.0 x 3.2 x 1.2mm

The drawing shows three views of a 0.1uF capacitor:

- Top View:** A rectangular package with pins 1, 2, 3, and 4. Dimensions: width 0.13 ± 0.008 (3.2 ± 0.2), length 0.2 ± 0.008 (5.0 ± 0.2).
- Side View:** Shows the profile of the package. Dimensions: total height 0.041 ± 0.004 (1.05 ± 0.1), and a specific feature height of 0.063 (1.6).
- Bottom View:** Shows the underside of the package with dimensions for the mounting pads and internal structure. Dimensions include 0.018 (0.45), 0.102 (2.6), 0.043 (1.1), 0.028 (0.7), and 0.02 (0.5).

Recommended land pattern: A diagram showing the recommended PCB pad layout for the capacitor. It includes dimensions for the pad diameter (0.051 (1.3)), the distance between pads (0.102 (2.6)), and the pad thickness (0.039 (1.0)).

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

Dimensions: Inches (mm)

PIN	FUNCTION
1	CE
2	GND
3	Output
4	VDD

FEEDING (PULL) DIRECTION →

0.3±0.005

1.75±0.1

2.0±0.1

4.0±0.1

5.5±0.1

12.0±0.3

5° MAX

5.3

1.5±0.1

Ø1.55

PIN1

Ø1.55

8.0±0.1

3.5

Ø13.0±0.5

2.0

120°

Ø20.2

12.4

Ø62

Ø180

Dimensions: mm

ABRACON CORPORATION

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30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com