

5.0V CERAMIC SMD LOW PROFILE CRYSTAL CLOCK OSCILLATOR

ASF1



RoHS
Compliant



5.0 x 3.2 x 1.1 mm

FEATURES:

- Compact and low in height
- Low current consumption
- Tri state function
- Suitable for high density SMT
- Tight stability option
- Seam sealed package
- Reflow capable

APPLICATIONS:

- CCD clock for VTR camera
- Equipment connected to PC or PC cards
- Thin equipment
- Wireless communication

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	ASF1
Frequency:	321 kHz to 125 MHz
Operating temperature:	-10°C to +70°C (see option)
Storage temperature:	- 55°C to + 125°C
Overall Frequency Stability:	±100 ppm max. (see option)
Supply voltage (Vdd):	5.0 Vdc ± 10%
Current Consumption: (Full Load)	15 mA max for 321kHz ~ 30MHz 45 mA max for 30MHz ~ 80MHz 85 mA max for 80MHz ~ 125MHz
Symmetry at 1/2 Vdd:	40/60% max. (see option)
Rise and Fall Times(Tr/Tf):	10 ns max.
Output load:	5TTL max., 50pF max
Output Voltage:	VOH = 0.9*Vdd min. VOL = 0.1*Vdd max.
Tri State:	"1" or open: Oscillation; VIH ≥ 0.7*Vdd "0": Output disabled (HI-Z); VIL < 0.3*Vdd
Start-up-time:	10 mS max.
Aging per year:	±5 ppm @25°C
Phase Jitter RSM:	1pS max. (12k ~ 20MHz)

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASF1 - Frequency - - - -

Operating Temp. Range	
D	-10°C to +60°C
E	-20°C to +70°C
F	-30°C to +70°C
N	-30°C to +85°C
L	-40°C to +85°C

Overall Frequency Stability	
J(*)	±20ppm
R	±25ppm
K	±30ppm
H	±35ppm
B	±40ppm
C	±50ppm

* Temp option D and E and standard temp. only

Packaging	
T	Tape and Reel 1,000pcs

Symmetry	
S	45/55% @ 1/2Vdd

Please contact ABRACON if parts are intended for life dependent applications.

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 1.4.08**
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5.0 x 3.2 x 1.1 mm

Top view

Overall width: 0.2 ± 0.008 (5.0 ± 0.2)

Pin 1 location: 4 (top-left), 3 (top-right), 2 (bottom-right), 1 (bottom-left)

Pin pitch (center-to-center): 0.13 ± 0.008 (3.2 ± 0.2)

Bottom view

Overall width: 0.1 ± 0.004 (2.5 ± 0.1)

Pin pitch (center-to-center): 0.04 ± 0.006 (1.1 ± 0.15)

Pin 1 location: 4 (top-left), 3 (top-right), 2 (bottom-right), 1 (bottom-left)

Recommended land pattern

Pin pitch (center-to-center): 0.10 (2.54)

Pin width: 0.047 (1.2)

Pin spacing: 0.039 (1.0)

Capacitor value: 0.01 uF

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

Dimensions: Inches (mm)

PIN	FUNCTION
1	Tri-State
2	GND
3	Output
4	VDD

FEEDING (PULL) DIRECTION →

0.3±0.005

1.75±0.1

2.0±0.1

2.0±0.1

5.4±0.1

5° MAX

5.5±0.1

12.0±0.3

8.0±0.1

3.5±0.1

4.0±0.1

2.0±0.1

Ø1.5

PIN1

Ø1.5

12.4+2/-0

3.0

Ø13.0±0.5

2.5

120°

Ø21.0±1

Ø100

Ø33.0±1

Dimensions: mm

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