7.0 x 5.0 x 1.4mm HCMOS/ TTL COMPATIBE SURFACE MOUNT LOW PROFILE (1.4max) CRYSTAL CLOCK OSCILLATOR

ASV2 SERIES



7.0 x 5.0 x 1.4mm

Pb RoHS Compliant

FEATURES:

- 1.4 mm max. in height
- HCMOS and TTL compatible, 1.8V to 3.3VDC
- Tristate Enable / Disable function
- Reflow capable
- Available optional -40°C to 85°C extended temperature
- Seam sealed package

APPLICATIONS:

- Clock signaling for µProcessors, PC Motherboards & Graphic Cards
- High load output drive capability applications

STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ASV2 Series
Frequency Range	0.012 MHz to 133.000 MHz
Operating Temperature	-10° C to + 70° C (see options)
Storage Temperature	- 55° C to + 125° C
Overall Frequency Stability	± 100 ppm max. (see options)
Supply Voltage (Vdd)	3.3 Vdc ± 10% (see options)
Input Current	See Table 1
Symmetry	40/60 % max.@ 1/2Vdd (see options)
Rise time / Fall time (Tr/Tf)	See Table 2
Output Load	15pF (5TTL) (see options)
Output Voltage	VOH = 0.9 * Vdd min. (90% of Vdd) VOL = 0.4 Vdc max. (10% of Vdd)
Start-up Time	8ms max.
Tristate Function	"1" (VIH: see table 3) or open: Oscillation "0" (VIL: see table 3): Hi Z
Aging at 25°C/year	±5ppm max.
Absolute Clock Period Jitter	± 40ps max.
Disable Current	10µA max.

TABLE 1

Frequency	3.3Vdd	2.5Vdd	1.8Vdd
0.012MHz Fo < 0.048MHz	5	5	N/A
0.048MHz Fo < 1.5MHz	5	5	5
1.5MHz Fo < 20MHz	7	7	5
20MHz Fo < 50MHz	20	15	15
50MHz Fo < 70MHz	30	20	15
70MHz Fo < 125MHz	30	20	20
125MHz Fo 133MHz	40	30	N/A

Unit: (mA max)

TABLE 2

Frequency	3.3Vdd	2.5Vdd	1.8Vdd
0.012MHz Fo < 1.0MHz	200	200	N/A
1.0MHz Fo < 20MHz	10	10	10
20MHz Fo < 50MHz	6	6	6
50MHz Fo < 70MHz	3	3	3
70MHz Fo < 125MHz	3	3	3
125MHz Fo 133MHz	3	3	N/A

Tr times are measured between 10% & 90% of Vdd with 15pF load.

TABLE 3

Vdd	V_{IH}	V_{IL}
1.8	1.26	0.5
2.5	1.75	0.5
3.3	2	0.5

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

7.0 x 5.0 x 1.4mm HCMOS/ TTL COMPATIBE SURFACE MOUNT LOW PROFILE (1.4max) CRYSTAL CLOCK OSCILLATOR

ASV2 SERIES



7.0 x 5.0 x 1.4mm

Pb RoHS Compliant

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ASV2 □ - Frequency - □ - □ - □ - □- □

P/N and Vdd (V)	
ASV2	3.3±10%
ASV21	2.5±10%
ASV22	1.8±10%

Operating Temp.	
I	0°C to +50°C
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

Packaging	
Blank	Bulk
T	Tape and Reel

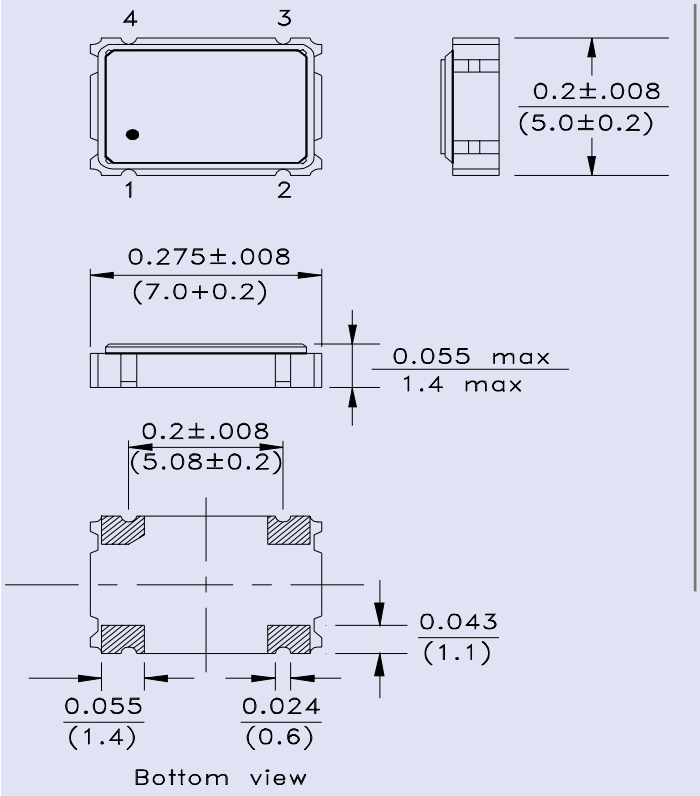
Frequency
XX.XXXXMHz

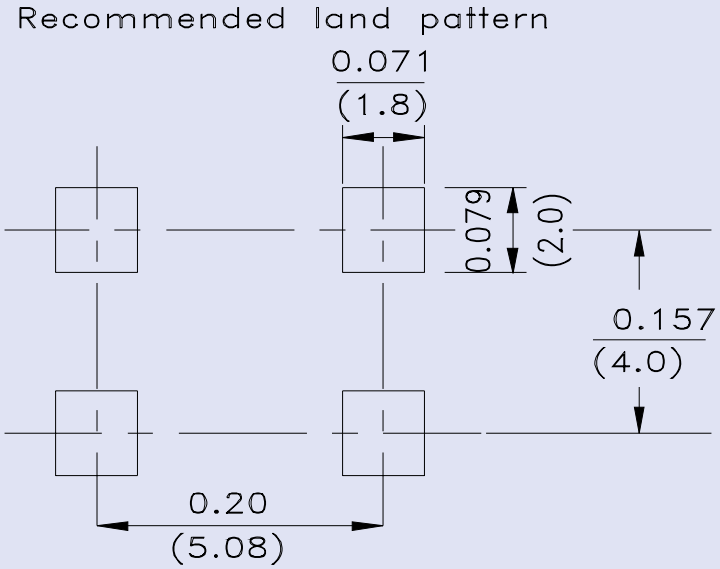
Freq. Stability	
J	± 20 ppm
R	± 25 ppm
K	± 30 ppm
H	± 35 ppm
C	± 50 ppm

Output Load	
Blank	15 pF
L1	50pF
L2	15TTL
L3	50TTL

Symmetry	
Blank	40/60% @ 1/2Vdd
S	45/55% @ 1/2Vdd

OUTLINE DRAWING:





Dimensions: mm

PIN	FUNCTION
1	Tristate Enable/Disable
2	GND/Case
3	Output
4	Vdd

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

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

7.0 x 5.0 x 1.4mm HCMOS/ TTL COMPATIBE SURFACE MOUNT LOW PROFILE (1.4max) CRYSTAL CLOCK OSCILLATOR

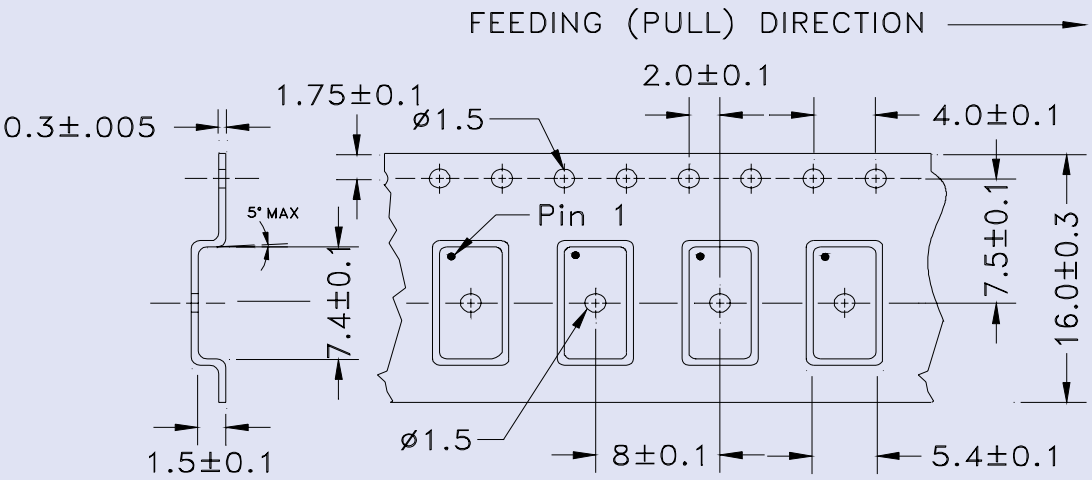
ASV2 SERIES

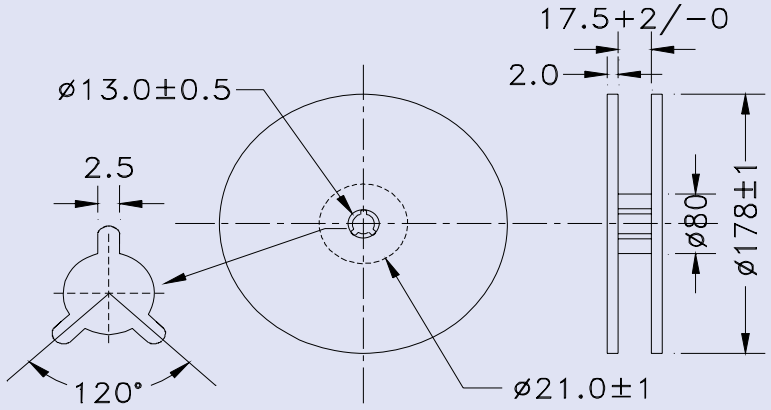
RoHS Compliant



7.0 x 5.0 x 1.4mm

TAPE & REEL: Tape and reel 1,000pcs/reel





Dimensions: mm