

5.0V HCMOS/TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR

ASL1 Series



RoHS
Compliant



7.0 x 5.08 x 1.4mm

FEATURES:

- HCMOS and TTL compatible.
- Available optional -40°C to 85°C extended temperature.
- Tri-state Enable/Disable function.
- IR reflow capable
- Seam sealed.

APPLICATIONS:

- Provide clock signals for microprocessors, PC mainboards, Graphic cards.
- High output drive capability applications.
- Personal computer, Laptop computer

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	ASL1 Series
Frequency range:	1.000 ~ 125.000 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):	5.0 V ± 10%
Input current:	See Table 1
Symmetry at 1/2Vdd:	40/60 % max. (see options)
Rise and fall time (Tr/Tf):	See Table 1
Output load:	10TTL or 50 pF (1MHz to 70MHz) 10TTL or 15 pF (70.001MHz to 125MHz)
Output voltage:	VOH = 0.9 * Vdd min. VOL = 0.4 * Vdc max.
Start-up time:	10 ms max.
Tri-state function:	"1" (VIH ≥ 2.2 V) or open: Oscillation "0" (VIL < 0.8 V) : Hi Z
Aging at 25°C/year:	±5ppm max.
Period jitter one sigma:	± 25ps max
Period jitter absolute:	± 100ps max.

Table 1

Freq. (MHz)	Idd max. (mA)	Tr/Tf max. (nSec)
1.0 ~ 34.99	25	10
35.0 ~ 60.0	40	5
60.01~100.0	60	5
100.01 ~ 125	80	2.5

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ASL1 - Frequency - □ - □ - □ - □ - □

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

Overall Frequency	
J*	±20ppm
R	±25ppm
K	±30ppm
H	±35ppm
C	±50ppm

*Temp. option I, D, E, and -10°C to +70°C only

Packaging	
Blank	Bulk
T	Tape and Reel

Output Load	
50	50pF

Symmetry	
S	45/55% @ 1/2Vdd
S1	45/55% @ 1/4Vdd





7.0 x 5.08 x 1.4mm

Technical drawing of a rectangular plate with dimensions and tolerances:

- Top View:** A rectangle with a central hole. Dimensions are 140 mm (width, labeled 1) and 208 mm (height, labeled 2). A small circle indicates the hole.
- Side View:** A cross-section showing the plate's thickness. The total thickness is 0.2 ± 0.008 mm, with a tolerance of (5.08 ± 0.2) in parentheses.
- Bottom View:** A rectangle with four corner slots. Dimensions are 140 mm (width, labeled 1) and 208 mm (height, labeled 2). The corner slots are 4.3 mm deep, with a tolerance of (1.1) in parentheses.
- Top Surface:** A rectangle with a central hole. Dimensions are 140 mm (width, labeled 1) and 208 mm (height, labeled 2). A small circle indicates the hole.
- Bottom Surface:** A rectangle with four corner slots. Dimensions are 140 mm (width, labeled 1) and 208 mm (height, labeled 2). The corner slots are 4.3 mm deep, with a tolerance of (1.1) in parentheses.

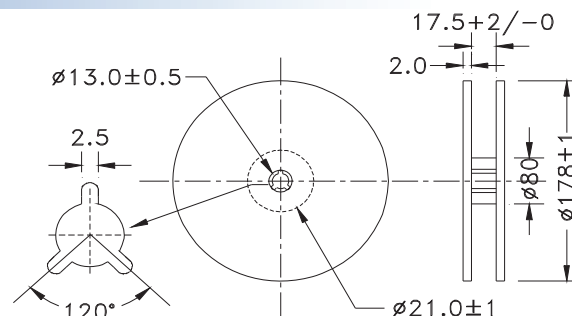
Dimensions: inches (mm)

PIN	FUNCTION
1	Tri-state Enable/Disable
2	GND/Case
3	Output
4	Vdd

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Technical drawing of a multi-hole punch die. The drawing shows a side view of the die with dimensions and labels. The dimensions are as follows:

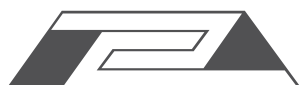
- Overall width: 16.0 ± 0.3
- Overall height: 7.5 ± 0.1
- Distance from left edge to first hole center: 0.3 ± 0.005
- Distance between hole centers: 2.0 ± 0.1
- Distance from last hole center to right edge: 4.0 ± 0.1
- Distance from left edge to first hole center (bottom view): 2.0 ± 0.1
- Distance between hole centers (bottom view): 8 ± 0.1
- Distance from last hole center to right edge (bottom view): 5.4 ± 0.1
- Distance from top edge to hole center line: 1.75 ± 0.1
- Distance from bottom edge to hole center line: 7.4 ± 0.1
- Angle of the bottom edge: 5° MAX
- Hole diameter: $\phi 1.5$
- Pin diameter: $\phi 1.5$
- Feeding (PULL) DIRECTION: Indicated by an arrow pointing right.



Dimensions: mm

Figure 1 is a graph showing the temperature profile of a soldering process. The Y-axis represents Temperature (°C) with marked values at 25°C, 150°C, 180°C, 230°C, and 260°C. The X-axis represents Time (seconds) with phases labeled Pre-Heat, Reflow, and Cool. The profile starts at 25°C, rises to 150°C (Pre-Heat, 60~120s), then to 260°C (Reflow, 30~40s), and finally cools down. A note indicates a maximum of 1 time at +260°C±5°C for 10s.

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