

HCMOS SURFACE-MOUNT CRYSTAL CLOCK OSCILLATOR



2.0 X 1.6 X 0.7mm

ASA SERIES



FEATURES:

- Pb-Free/RoHS Compliant
- Smallest industry package
- Tri-state function
- Suitable for high density SMT
- IR-reflow capable
- Seam sealed package assures high reliability

APPLICATIONS:

- CCD clock for VTR camera
- Computers and peripherals
- Portable electronics
- Mobile communication, PDA

STANDARD SPECIFICATIONS:

PARAMETERS

Frequency Range	1.000 MHz to 80 MHz
Operating Temperature	-10°C to + 60°C (See Options)
Storage Temperature	- 40°C to + 85°C
Overall Frequency Stability	± 50 ppm max. (see options)
Supply Voltage (Vdd)	See Table 1
Input Current	20mA max
Symmetry	40/60 % max.@ 50%Vdd (see options)
Rise and Fall Time (Tr/Tf)	10ns max
Output Load	15 pF (3TTL)
Output Voltage	VOH = 0.9* Vdd min. VOL = 0.1* Vdd max.
Start-up Time	10ms max.
Tri-state Function	"1" (VIH >= 0.7* Vdd) or open: Oscillation "0" (VIL < 0.3* Vdd) : No oscillation/Hi Z
Aging at 25°C/year	± 5ppm max.

TABLE 1

P/N	Vdd (V)
ASA	3.3±0.1
ASA1	2.5±0.1
ASA2	1.8±0.1

Note: Decoupling capacitor shall be connected between Vdd and GND for best performance and stability.

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASA□ - Frequency - □ - □ - □ - □

Vdd options	
Blank	3.3Vdc±0.1V
1	2.5Vdc±0.1V
2	1.8Vdc±0.1V

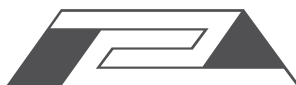
Operating Temp.	
E	-20°C to +70°C
F	-30°C to +70°C
N	-30°C to +85°C
L	-40°C to +85°C

Overall Frequency Stability	
R	±25ppm
K	±30ppm

Symmetry	
S	45/55%@1/2Vdd

Contact factory for frequency stability / temperature range options

Packaging	
Blank	Bulk
T	Tape and Reel



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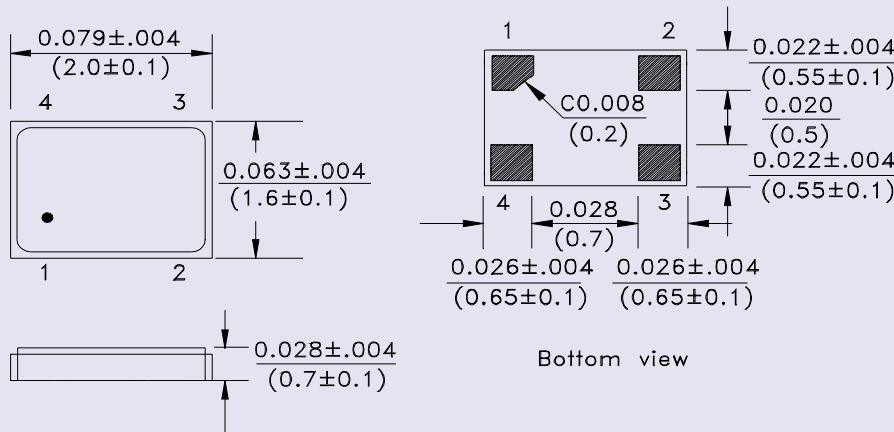


2.0 X 1.6 X 0.7mm

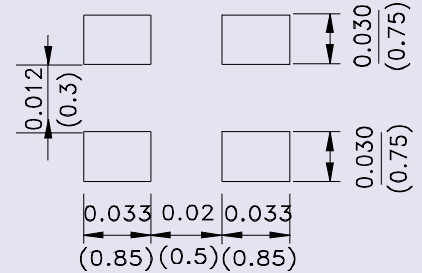
ASA SERIES



OUTLINE DRAWING:



Recommended land pattern

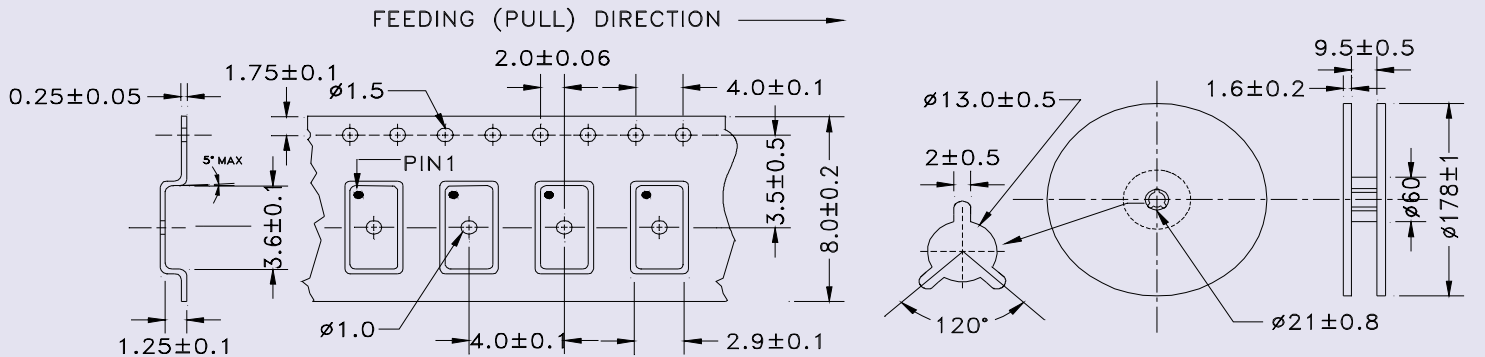


PIN	FUNCTION
1	Tri-state
2	GND/Case
3	Output
4	Vdd

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

Dimensions: inch (mm)

TAPE & REEL:



Dimensions: mm

REFLOW PROFILE:

