



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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HCMOS SURFACE-MOUNT CRYSTAL CLOCK OSCILLATOR



2.0 x 1.6 x 0.7 mm

ASA SERIES

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



RoHS/RoHS II Compliant

FEATURES:

- Ultra miniature package, 2.0 x 1.6 x 0.7mm
- Tri-state function
- Suitable for high density SMT
- Suitable for RoHS compliant reflow process
- Seam sealed package assures high reliability

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		1.0		80	MHz	
Operating Temperature		-10		+60	°C	See options
Storage Temperature		-40		+85	°C	
Overall Frequency Stability*		-50		+50	ppm	See options
Supply Voltage (Vdd)		2.97	3.3	3.66	V	Standard
		2.25	2.5	2.75		Option 1 (CMOS)
		1.62	1.8	1.98		Option 2 (CMOS)
Supply Current (I _{dd}) into 15pF Load	Vdd = 3.3 V		2.0	5.0	mA	1MHz <= F <= 20 MHz
			4.0	10.0		20 MHz < F <= 50 MHz
			7.0	15.0		50 MHz < F <= 80 MHz
	Vdd = 2.5 V		2.0	5.0		1MHz <= F <= 20 MHz
			3.0	10.0		20 MHz < F <= 50 MHz
			5.0	10.0		50 MHz < F <= 80 MHz
	Vdd = 1.8 V		1.5	5.0		1MHz <= F <= 20 MHz
			2.5	5.0		20 MHz < F <= 50 MHz
			4.0	10.0		50 MHz < F <= 80 MHz
Output Load				15	pF	
				2	TTL	
Output Voltage	V _{OH}	0.9*Vdd			V	CMOS
	V _{OL}			0.1*Vdd		CMOS
	V _{OH}	2.4				TTL
	V _{OL}			0.4		TTL
Tri-state function		"1" (VIH >= 0.7*Vdd) or Open : Oscillation "0" (VIH < 0.3*Vdd) : Hi Z				
Aging		-3.0		+3.0	ppm	@+25°C First year
Symmetry @1/2Vdd		40	50	60	%	Standard
		45	50	55		Option S
Start-up Time				10.0	ms	
Rise/Fall Time (Tr/Tf)				10.0	ns	

*Overall frequency stability includes initial frequency tolerance @+25°C and stability over the operating temperature.

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASA - MHz - - - -

Supply Voltage
Blank: 3.3V±10%
1: 2.5 V±10%
2: 1.8 V±10%

Packaging
Blank: Bulk
T: Tape & Reel (1kpcs)
T3: Tape & Reel (3kpcs)

Frequency in MHz
Please specify the frequency in MHz. e.g. 14.31818MHz

Operating Temp.
Blank: -10°C ~ +60°C
E: -20°C ~ +70°C
L: -40°C ~ +85°C

Overall Freq. Stability
Blank: ±50ppm
R**: ±25ppm
K***: ±30 ppm

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

**Available for -10 to +60°C only

***Available for -10 to +60°C, option E only

Contact Abracon for tighter frequency stability options

ABRACON IS
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HCMOS SURFACE-MOUNT CRYSTAL CLOCK OSCILLATOR



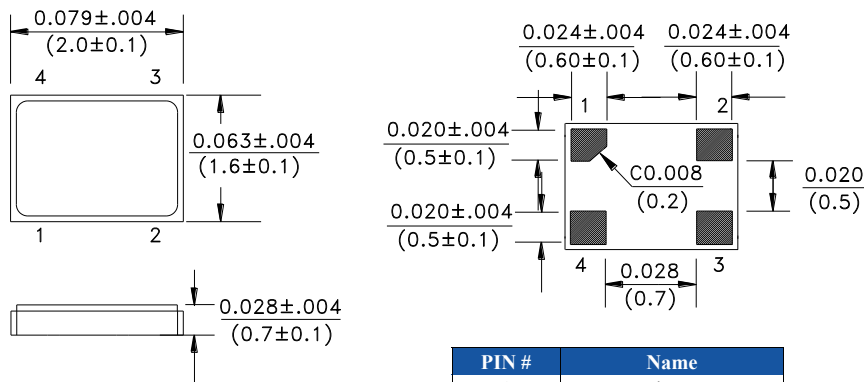
ASA

2.0 x 1.6 x 0.7mm

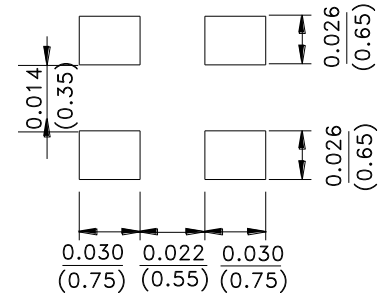
ASA SERIES

RoHS/RoHS II Compliant

OUTLINE DRAWING:



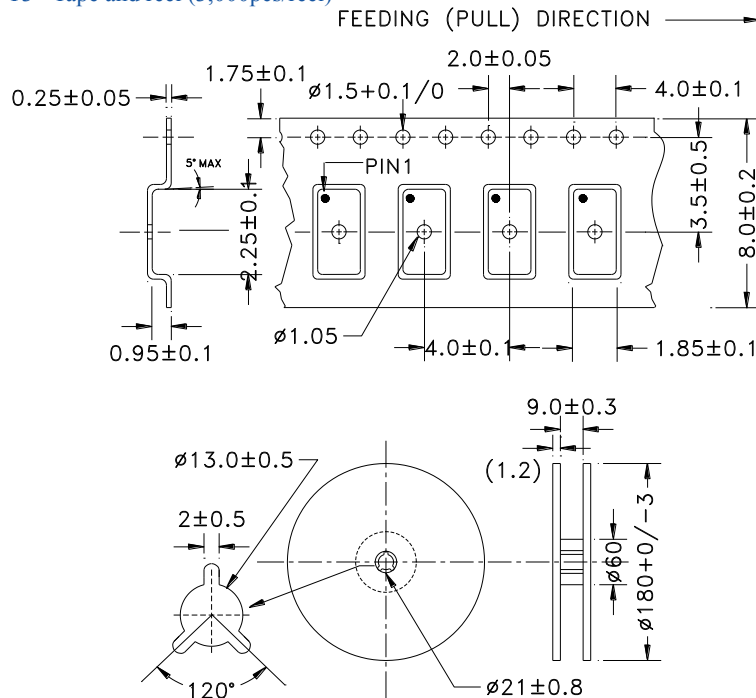
Recommended land pattern



PIN #	Name
1	Tri-state
2	GND
3	Output
4	Vdd

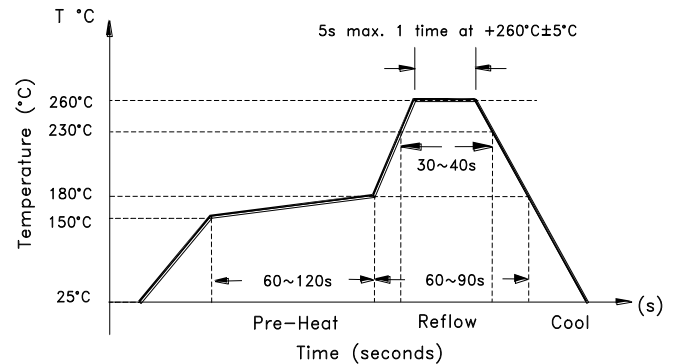
TAPE & REEL:

T= Tape and reel (1,000pcs/reel)
 T3= Tape and reel (3,000pcs/reel)



Dimensions: mm

REFLOW PROFILE:



Need a test socket for the ASA Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#).

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