

# 3.3V HCMOS / TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR



ASFL1

5.0 x 3.2 x 1.1mm

ASFL1



## FEATURES:

- Tri state function
- Suitable for high density SMT
- Tight stability option
- Seam sealed package
- IR reflow capable

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

### PARAMETERS

ABRACON P/N:	ASFL1
Frequency:	312 KHz to 133.33 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):	3.3 Vdc ± 10%
Supply Current (Idd):	8mA typ. ; 15 mA max for 321kHz ~ 29.9MHz 20mA typ. ; 45 mA max for 30MHz ~ 79.9MHz 28mA typ. ; 85 mA max for 80MHz ~ 125MHz
Symmetry at 1/2 Vdd:	40/60% max. (see option)
Rise and Fall Times(Tr/Tf):	5ns typ. ; 10ns max for 321kHz ~ 29.9MHz 5ns typ. ; 7ns max for 30MHz ~ 79.9MHz 3ns typ. ; 7ns max for 80MHz ~ 125MHz
Output load:	5TTL or 50pF max.
Output Voltage:	VOH = 0.9*Vdd min. VOL = 0.1*Vdd max.
Tri-state Function:	"1" or open: Oscillation; VIH ≥ 0.7*Vdd "0": Output disabled (HI-Z); VIL < 0.3*Vdd
Start-up-time:	1ms typ. ; 10ms max for 321kHz ~ 29.9MHz 3ms typ. ; 10ms max for 30MHz ~ 79.9MHz 3ms typ. ; 10ms max for 80MHz ~ 125MHz
Aging per year:	±5 ppm max. @25°C

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

### ASFL1 - Frequency - - - -

Operating Temp. Range		Overall Frequency Stability		Duty Cycle		Packaging	
I	0°C to +50°C	J(*)	±20ppm	Blank	40/60% @ 1/2Vdd	T	Tape and Reel 1,000pcs
D	-10°C to +60°C	R	±25ppm				
E	-20°C to +70°C	K	±30ppm	S	45/55% @ 1/2Vdd		
F	-30°C to +70°C	H	±35ppm				
N	-30°C to +85°C	B	±40ppm				
L	-40°C to +85°C	C	±50ppm				

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

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

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 11.04.08**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

# 3.3V HCMOS / TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR



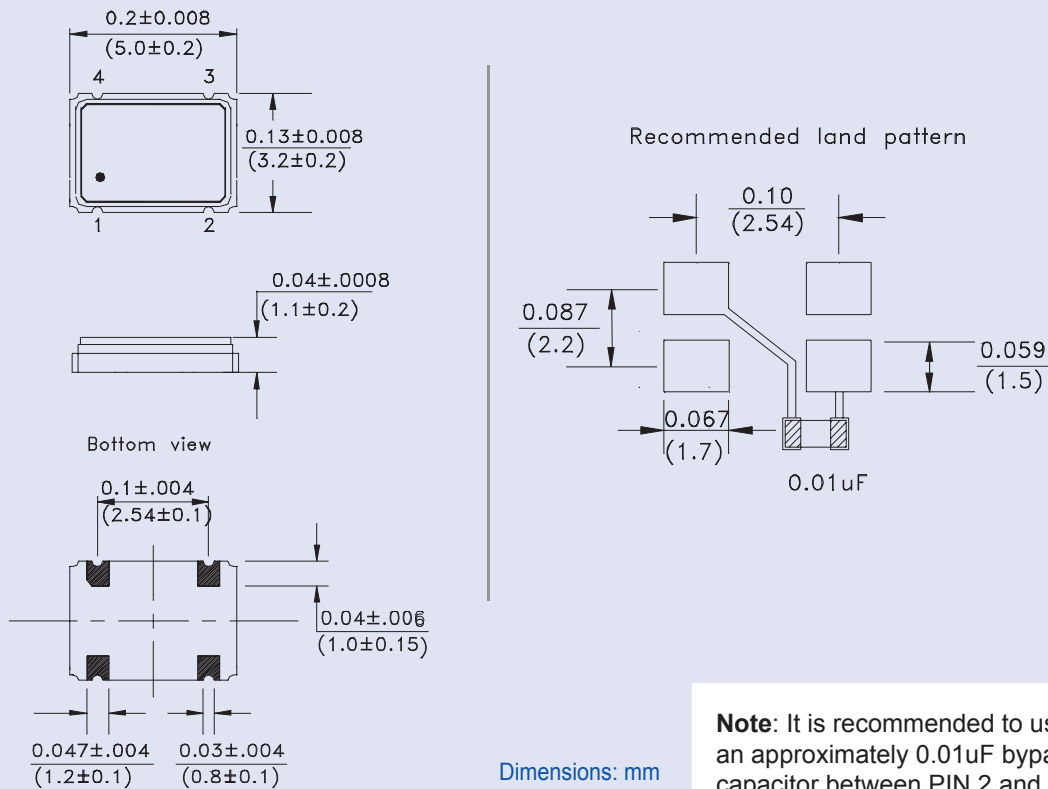
ASFL1

5.0 x 3.2 x 1.1mm

ASFL1

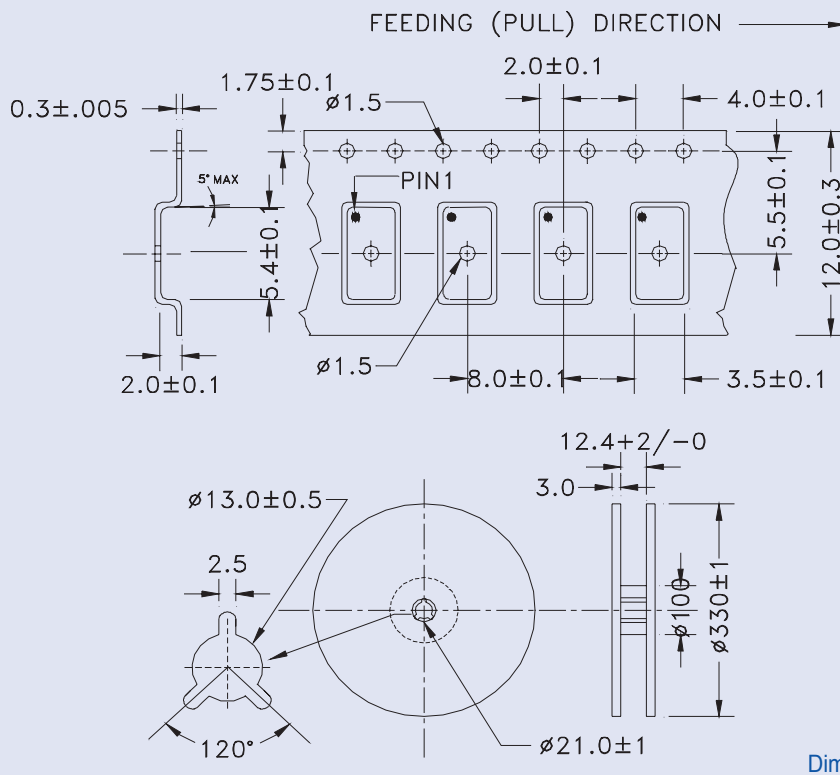


## OUTLINE DRAWING:



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

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



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

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 11.04.08**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)