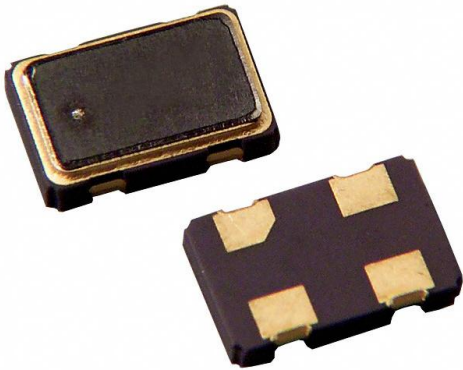


# ASFL1-33.333MHZ-EC-T Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	ASFL1-33.333MHZ-EC-T-DG
Manufacturer	<a href="#">Abracon LLC</a>
Manufacturer Product Number	ASFL1-33.333MHZ-EC-T
Description	XTAL OSC XO 33.3330MHZ HCMOS TTL
Detailed Description	33.333 MHz XO (Standard) HCMOS, TTL Oscillator 3 .3V Enable/Disable 4-SMD, No Lead

This model ASFL1-33.333MHZ-EC-T is available at DiGi Electronics.

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## Purchase and inquiry

Manufacturer Product Number:

ASFL1-33.333MHZ-EC-T

Series:

ASFL1

Base Resonator:

Crystal

Frequency:

33.333 MHz

Output:

HCMOS, TTL

Frequency Stability:

±50ppm

Operating Temperature:

-20°C ~ 70°C

Ratings:

-

Package / Case:

4-SMD, No Lead

Height - Seated (Max):

0.051" (1.30mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Type:

XO (Standard)

Function:

Enable/Disable

Voltage - Supply:

3.3V

Absolute Pull Range (APR):

-

Current - Supply (Max):

45mA

Mounting Type:

Surface Mount

Size / Dimension:

0.197" L x 0.126" W (5.00mm x 3.20mm)

Current - Supply (Disable) (Max):

10µA

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# 3.3V HCMOS/ TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR

ASFL1-33.333MHz-EC-T Abracon LLC XTAL OSC XO 33.3330MHz HCMOS TTL



5.0 x 3.2 x 1.3mm

**ASFL1**



## FEATURES:

- Tri state function
- Suitable for high density SMT
- Available tight stability option +/-20ppm
- Seam sealed package assures high reliability performance
- Suitable for RoHS compliant reflow process

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		0.321	-----	133.33	MHz	
Operating Temperature		-10	-----	+70	°C	See options
Storage Temperature		-55	-----	+125	°C	
Overall Frequency Stability		-100	-----	+100	ppm	See options
Supply Voltage (Vdd)		2.97	3.3	3.63	V	
Input Current	0.321MHz ~ 29.9MHz	-----	8	15	mA	
	30MHz ~ 79.9MHz	-----	20	45		
	80MHz ~ 133.33MHz	-----	28	85		
Symmetry (@ 1/2Vdd)		40	50	60	%	See options
Rise and Fall Time (Tr/Tf)	0.321MHz ~ 29.9MHz	-----	5	10	ns	
	30MHz ~ 79.9MHz	-----	5	7		
	80MHz ~ 133.33MHz	-----	3	7		
Output Load		-----	-----	15	pF	
		-----	-----	5	TTL	
Output Voltage	VOH	0.9*Vdd	-----	-----	V	
	VOL	-----	-----	0.1*Vdd	V	
Tri-state Function	VIH	0.7*Vdd	-----	-----	V	"1" or Open: Oscillation
	VIL	-----	-----	0.3*Vdd	V	"0": Output disable (Hi Z)
Disable Current		-----	-----	10	µA	
Start-up Time	0.321MHz ~ 29.9MHz	-----	1	10	ms	
	30MHz ~ 79.9MHz	-----	3	10		
	80MHz ~ 133.33MHz	-----	3	10		
Phase Jitter RMS (12kHz to 20MHz)		-----	-----	1	ps	Reference only. Please contact Abracon for specific frequencies
Aging		-5.0	-----	+5.0	ppm	@+25°C First year

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASFL1-  MHz -    -

Frequency in MHz
e.g. 24.576MHz
14.31818MHz
26.000MHz

Operating Temp.
I: 0°C ~ +50°C
D: -10°C ~ +60°C
E: -20°C ~ +70°C
F: -30°C ~ +70°C
N: -30°C ~ +85°C
L: -40°C ~ +85°C

Freq. Stability
J: ± 20 ppm(*)
R: ± 25 ppm
K: ± 30 ppm
H: ± 35 ppm
B: ± 40ppm
C: ± 50 ppm

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

(\*) Temp option I, D, E and -10°C ~ +70°C only.

Packaging
Blank: Bulk
T: 1000pcs/reel
T2: 250pcs/reel

ABRACON IS  
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# CRYSTAL CLOCK OSCILLATOR

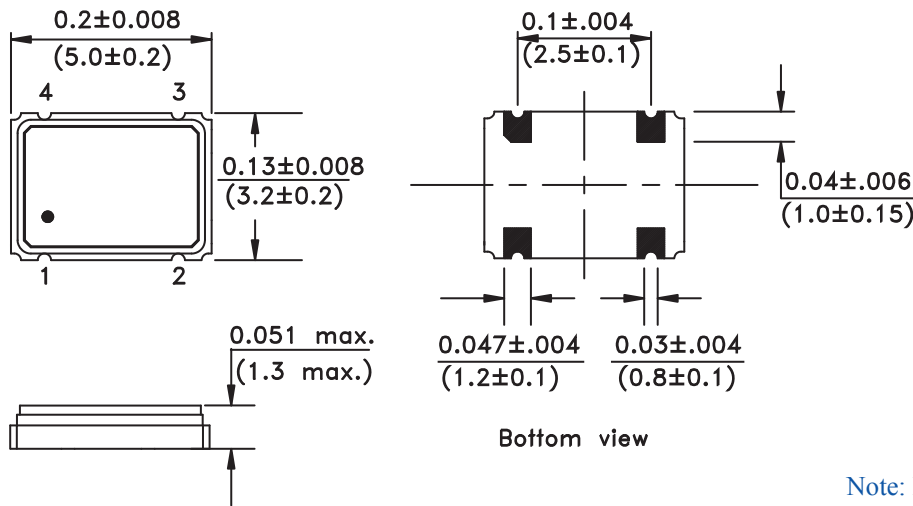


5.0 x 3.2 x 1.3mm

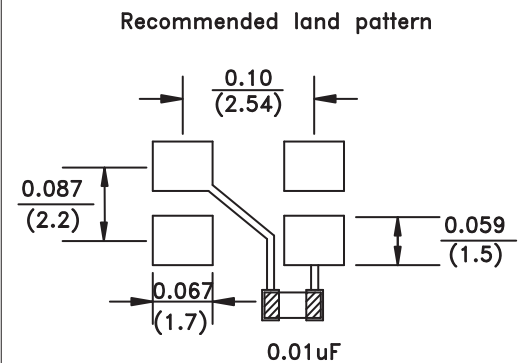
ASFL1



## OUTLINE DRAWING:



Dimensions: inches (mm)



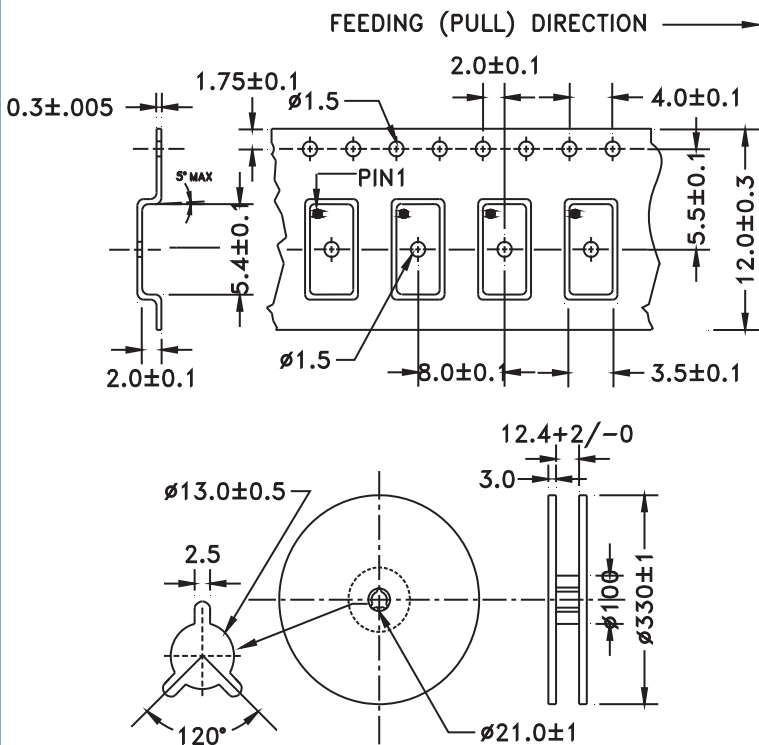
Pin	Function
1	Tri-State
2	GND
3	Output
4	Vdd

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

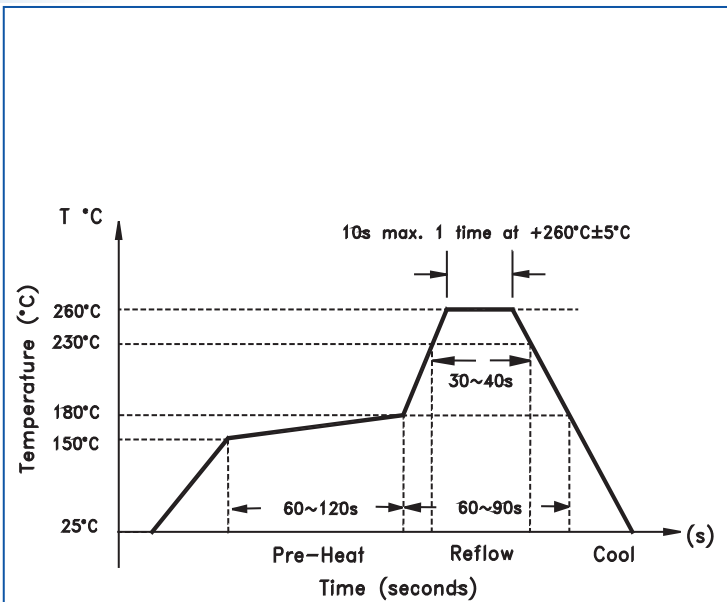
## TAPE & REEL:

T= Tape and reel (1,000pcs/reel)  
T2= Tape and reel (250pcs/reel)

Dimensions: mm



## REFLOW PROFILE:



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