3.3V HCMOS/ TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR

ASFL1

5.0 x 3.2 x 1.3mm

Pb RoHS Compliant

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": Ouput 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

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

Symmetry

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

Packaging

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

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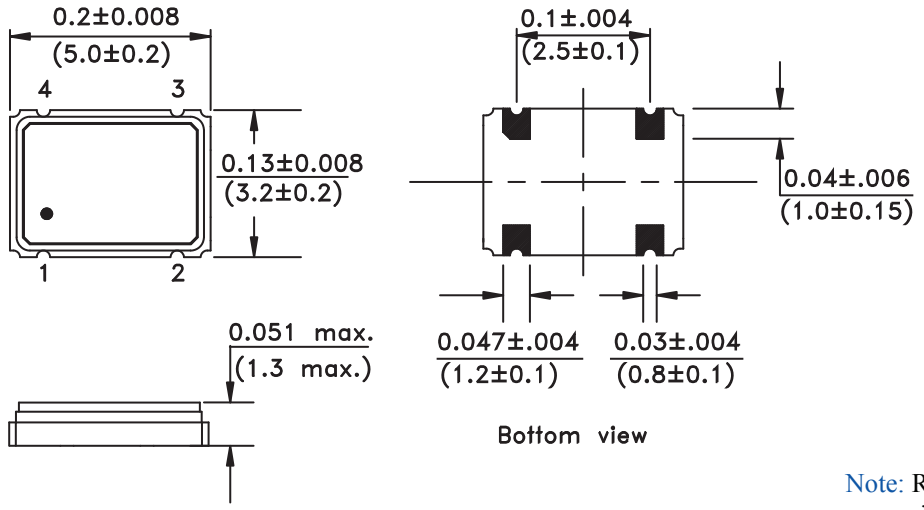
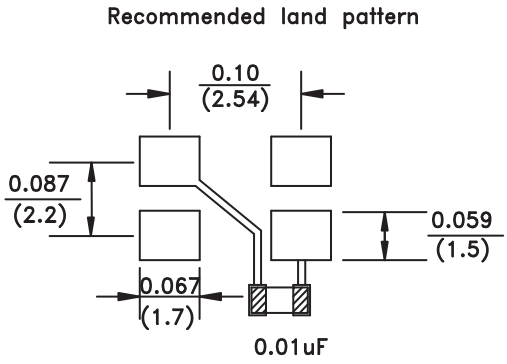
OUTLINE DRAWING:



Dimensions: inches (mm)



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

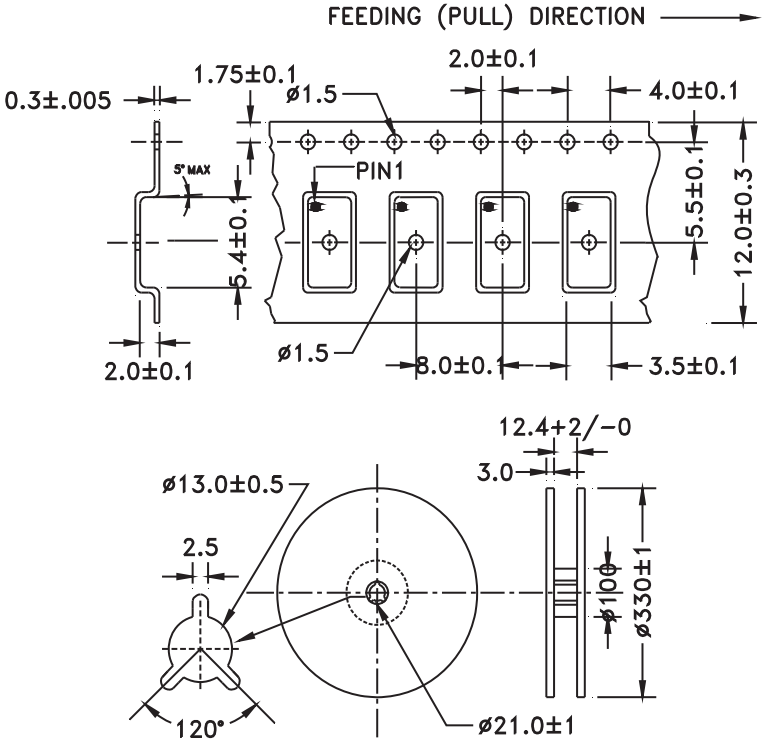
Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

TAPE & REEL:

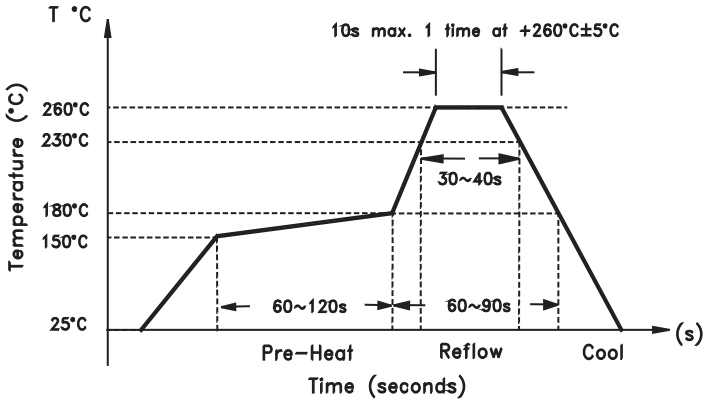
T= Tape and reel (1,000pcs/reel)

T2= Tape and reel (250pcs/reel)

Dimensions: mm



REFLOW PROFILE:



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