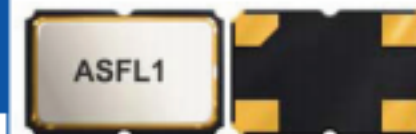


# 3.3V HCMOS/ TTL COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR



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	mA	
	30MHz ~ 79.9MHz	-----	20		
	80MHz ~ 133.33MHz	-----	28		
Symmetry (@ 1/2Vdd)	40	50	60	%	See options
Rise and Fall Time (Tr/Tf)	0.321MHz ~ 29.9MHz	-----	5	ns	
	30MHz ~ 79.9MHz	-----	5		
	80MHz ~ 133.33MHz	-----	3		
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	ms	
	30MHz ~ 79.9MHz	-----	3		
	80MHz ~ 133.33MHz	-----	3		
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