

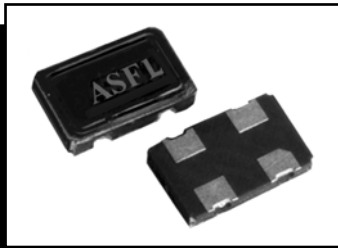
ECN/PCN No.: 3746

For Manufacturer			
Product Description: 3.3V HCMOS / TTL COMPATIBLE SMD CLOCK OSCILLATOR	Abracon Part Number / Part Series: ASFL	<input checked="" type="checkbox"/> Series <input type="checkbox"/> Part Number	
Affected Revision: G	New Revision: N/A, EOL	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety
Prior to Change: N/A, EOL			
After Change: N/A, EOL			
Cause/Reason for Change: Discontinuation of standard product series.			
Change Plan			
Effective Date: 03/02/2021	Additional Remarks: N/A		
Change Declaration: N/A, EOL			
Issued Date: 03/02/2021	Issued By: <i>Brooke Cushman</i> Product Engineer	Issued Department: Engineering	
Approval: <i>Thomas Culhane</i> Engineering Director	Approval: <i>Reuben Quintanilla</i> Quality Director	Approval: <i>Ying Huang</i> Purchasing Director	
For Abracon EOL only			
Last Time Buy (if applicable): NO LAST TIME BUY	Alternate Part Number / Part Series: ASFL1		
Additional Approval: N/A	Additional Approval: N/A	Additional Approval: N/A	
Customer Approval (If Applicable)			
Qualification Status: <input type="checkbox"/> Approved <input type="checkbox"/> Not accepted <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>			
Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			

Affected Part Numbers

ASFL-10.000MHZ-C
ASFL-10.000MHZ-EK-50-T
ASFL-10.000MHZ-EKS
ASFL-10.000MHZ-T
ASFL-100.000MHZ-EC-T
ASFL-100.000MHZ-L-C-S
ASFL-100.000MHZ-LC-T
ASFL-11.059MHZ-LJS
ASFL-11.2896MHZ-C
ASFL-12.000MHZ-LR
ASFL-125.000MHZ
ASFL-13.000MHZ
ASFL-14.31818MHZ-E-J
ASFL-14.31818MHZ-E-J-T
ASFL-14.7456MHZ-EJ-T
ASFL-16.384MHZ-EK-T
ASFL-16.384MHZ-F-J
ASFL-2.000MHZ-ECS-T
ASFL-2.000MHZ-EKS
ASFL-20.000MHZ
ASFL-20.000MHZ-F-J
ASFL-20.000MHZ-LC
ASFL-20.000MHZ-LCS
ASFL-20.000MHZ-NCS
ASFL-24.000MHZ-ERS
ASFL-24.000MHZ-ERS-T
ASFL-25.000MHZ
ASFL-25.000MHZ-C
ASFL-25.000MHZ-F-K
ASFL-25.000MHZ-LC
ASFL-25.000MHZ-LC-T
ASFL-25.000MHZ-LCS
ASFL-25.000MHZ-S
ASFL-27.000MHZ-EKS
ASFL-27.000MHZ-L
ASFL-28.636363MHZ-NCS-T
ASFL-29.4912MHZ-LCS
ASFL-3.6864MHZ
ASFL-3.6864MHZ-EC
ASFL-3.6864MHZ-EC-T
ASFL-30.000MHZ-LRS
ASFL-33.000MHZ
ASFL-33.000MHZ-LC
ASFL-33.000MHZ-T
ASFL-33.3333MHZ
ASFL-33.3333MHZ-E-C-S

ASFL-33.333MHZ-ECS-T
ASFL-34.560MHZ-B
ASFL-36.000MHZ-JS
ASFL-36.000MHZ-KS
ASFL-37.500MHZ-E-C-S
ASFL-37.500MHZ-E-C-S-T
ASFL-4.000MHZ
ASFL-4.000MHZ-EKS
ASFL-40.000MHZ
ASFL-40.000MHZ-CS
ASFL-40.000MHZ-E-J
ASFL-40.000MHZ-LJ
ASFL-48.000MHZ
ASFL-50.000MHZ
ASFL-50.000MHZ-C
ASFL-50.000MHZ-EC
ASFL-50.000MHZ-EK-50
ASFL-6.000MHZ-C
ASFL-6.000MHZ-LCS
ASFL-6.000MHZ-LKS
ASFL-60.000MHZ-EK-50
ASFL-60.000MHZ-EK-50-T
ASFL-66.000MHZ-EK
ASFL-7.3728MHZ-EK
ASFL-7.3728MHZ-LJ-T
ASFL-80.000MHZ-NK
ASFL-80.000MHZ-NK-T



5.0 x 3.2 x 1.6 mm

5.0 Vdc or 3.3 Vdc • LOW PROFILE ULTRA MINIATURE CERAMIC SURFACE MOUNT CRYSTAL CLOCK OSCILLATORS ASF1, ASFL and ASFL1

FEATURES:

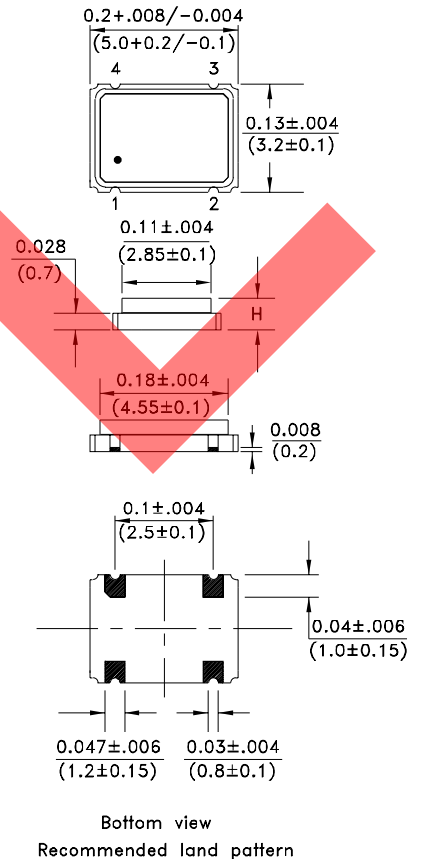
- Compact and low in height.(1.6 mm or 1.2 mm max.)
- Low current consumption.
- Tri state function.
- Suitable for high density SMT., Reflow capable.
- Tight stability option.
- Glass sealed package.

APPLICATIONS:

- CCD clock for VTR camera.
- Equipment connected to PC or PC cards.
- Thin equipment.

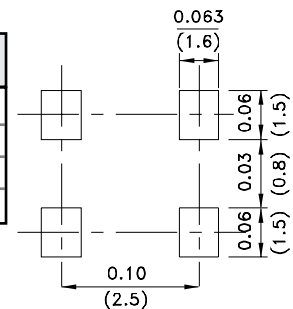
STANDARD SPECIFICATIONS

PARAMETERS	ASF1	ASFL	ASFL1
Frequency Range (F ₀)	1.50MHz ~ 125MHz		
Operating Temperature (T _{OPR})	-10°C to +70°C		
Storage Temperature (T _{STO})	-50°C to +125°C		
Frequency Stability (ΔF/F ₀)	±100ppm max. (See Options)		
Supply Voltage (V _{DD})	5.0 Vdc ±10%	3.3Vdc ±10%	
Input Current (I _{DD})	20mA max. 45mA max. 50mA max. 100mA max.	12mA max. for (F < 33MHz) 25mA max. for (F < 50MHz) 35mA max. for (F < 70MHz) 60mA max. for (F ≤ 125MHz)	
Duty Cycle or Symmetry	40 / 60% max. (See Options)		
Rise and Fall Times (T _R / T _F)	6ns max.		
Output Load	5TTL or 15pF(50pF max.) 2TTL or 15pF	5TTL or 15pF(30pF max.) for F < 70MHz 2TTL or 15pF for F ≥ 70MHz	
Output Voltage (V _{OH}) (V _{OL})	"1" 0.9 * V _{DD} min. "0" 0.1 * V _{DD} max.		
Tri-State Function	"1" or Open: Oscillation "0": Output disabled (Hi Z)	> 2.2V < 0.8V	
Start-up Time	10ms max.		
Aging per Year	±5ppm @ 25°C		



Connect a By-Pass capacitor 0.01 μF between V_{DD} and GND.
Environmental, and mechanical specifications, see appendix C. Group 2.
Marking, see appendix G. Test circuit, waveforms, see appendix B.
Tape and Reel, see appendix H.(1,000 pcs/reel).
Reflow profile, see appendix E.
Application notes, see appendix A.

PIN NO.	FUNCTION
1	Tri State
2	GND / Case
3	Output
4	V _{DD}



ORDERING OPTIONS

ASFXX - Frequency - Temperature - Overall Frequency Stability - Duty Cycle - Packaging

Blank or L	- E for -20°C to + 70°C	- J for ± 20ppm max.*	- T (Tape & Reel)
Blank or 1	- F for -30°C to + 70°C	- R for ± 25ppm max.*	
XX.XXXXX MHz	- N for -30°C to + 85°C	- K for ± 30ppm max.*	
	- L for -40°C to + 85°C	- H for ± 35ppm max.*	
		- B for ± 40ppm max.	
		- C for ± 50ppm max.	

-S for 45 / 55% @ 1/2 V_{DD}

* Vary with frequency and temperature.

P/N	H
ASFL	0.063±0.006 (1.6±0.15)
ASF1, ASFL1	0.043±0.004 (1.1±0.1)

Dimensions: Inches (mm)