

2.5V / 3.3Vdc PROGRAMMABLE SPREAD SPECTRUM LOW EMI CLOCK OSCILLATOR

ASSFLP SERIES



ESD Sensitive



RoHS / RoHS II Compliant



5.0 x 3.2 x 1.3 mm

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive -
MSL = N/A: Not Applicable

FEATURES:

- Spread Spectrum LOW EMI Oscillator
- 5.0 x 3.2 x 1.3mm Ceramic package
- Tri-state function
- Suitable for RoHS reflow profile
- Seam sealed ceramic package assures high reliability.

APPLICATIONS:

- Laptop computer
- PDA
- LCD
- Digital camera
- Wireless LAN
- Mobile phone
- Printer
- Flat TV

Quick Turn Delivery!
<5 Days for small quantities!

STANDARD SPECIFICATIONS:

Key Electrical Specifications (Die IC's Part Number PL671-00-A5)

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range:		8		160	MHz	
Spread Spectrum Type	Center Spread	±0.25 typ. ~ ±2.0 typ.			%	See table 3 for options
	Down Spread	-0.5 typ. ~ -4.0 typ.				
EMI Reduction (Reduction is applied to the entire frequency spectrum)	100MHz at C02	-7			dBc	Refer to the dB level when no modulation
	100MHz at C04	-9				
Operating Temperature:		-40		+85	°C	
Storage Temperature:		-55		+125	°C	
Overall Frequency Stability*:		-50		+50	ppm	See options
Supply Voltage (Vdd):	V _{dd} = 3.3V	2.97	3.3	3.63	V	Standard
	V _{dd} = 2.5V	2.25	2.5	2.75	V	Option 1
Input Current:	8.000 to 49.999MHz		10	20	mA	V _{dd} = 2.5V
	50.000 to 79.999MHz		15	20		
	80.000 to 99.999MHz		20	25		
	100.0 to 160.0MHz		25	30		
	8.000 to 49.999MHz		15	20	mA	V _{dd} = 3.3V
	50.000 to 79.999MHz		20	25		
	80.000 to 99.999MHz		25	30		
	100.0 to 160.0MHz		30	40		
Symmetry:		45	50	55	%	@ 1/2Vdd, CL=15pF
Rise and Fall Time (Tr/Tf)**:	8.000 to 49.999MHz		2.0	5.0	ns	V _{dd} = 2.5V
	50.000 to 79.999MHz		2.0	4.0		
	80.000 to 99.999MHz		1.5	3.0		
	100.0 to 160.0MHz		1.5	3.0		
	8.000 to 49.999MHz		3.0	10.0	ns	V _{dd} = 3.3V
	50.000 to 79.999MHz		2.5	8.0		
	80.000 to 99.999MHz		2.0	5.0		
	100.0 to 160.0MHz		1.5	4.0		
Output Load:				15	pF	CMOS
Output Voltage:	VOH	0.9*Vdd			V	
	VOL			0.1*Vdd	V	
Start-up Time:			2.0	10	ms	
Tri-state function (Stand-by) :		"1" (VIH≥0.7*Vdd) or Open: Oscillation "0" (VIH<0.3*Vdd) : Hi Z				
Modulation carrier frequency (Dither rate)		Programmable dependant (15kHz to 120kHz)				
Aging:		-3.0		+3.0	ppm	@+25°C First year

* Frequency stability includes initial tolerance, temperature characteristics, load variation, and supply voltage variation.

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON[®]
The Power of Linking Together

2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 04.28.15**

Ph. 949.546.8000 | Fax. 949.546.8001

Visit www.abracon.com for Terms and Conditions of Sale

2.5V / 3.3Vdc PROGRAMMABLE SPREAD SPECTRUM
LOW EMI CLOCK OSCILLATOR

ASSFLP SERIES



RoHS / RoHS II Compliant



5.0 x 3.2 x 1.3 mm

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

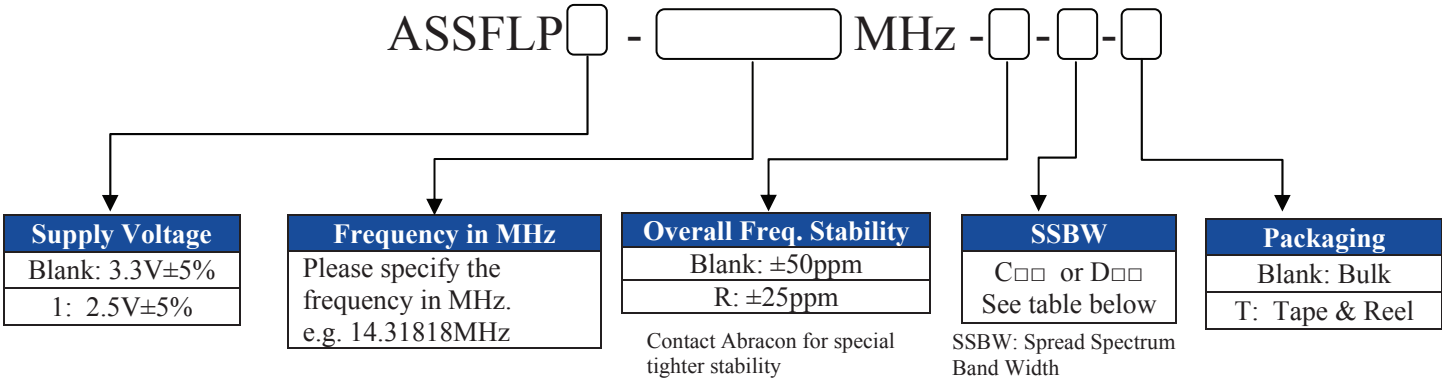


Table: SPREAD SPECTRUM BANDWIDTH SELECTION TABLE

SPREAD SPECTRUM BAND WIDTH OPTIONS *			
Center Spread (%)		Down Spread (%)	
C02	±0.250	D02	-0.50
C04	±0.50	D03	-0.75
C08	±1.000	D04	-1.00
C12	±1.500	D06	-1.50
C16	±2.000	D08	-2.00
		D12	-3.00
		D16	-4.00

Note *: All spectrum spread percentage numbers are typical values

5.0 x 3.2 x 1.3 mm

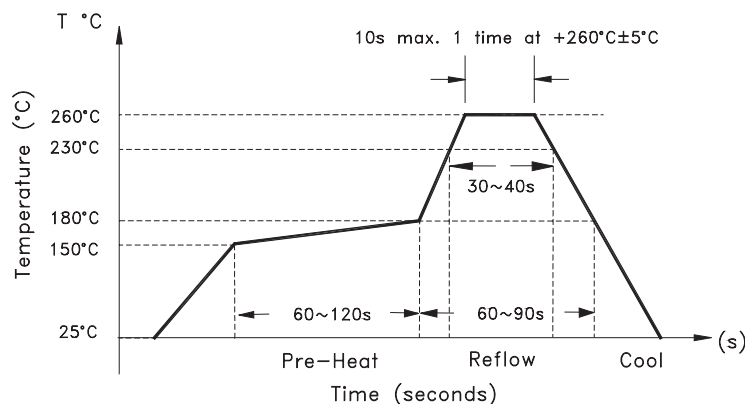
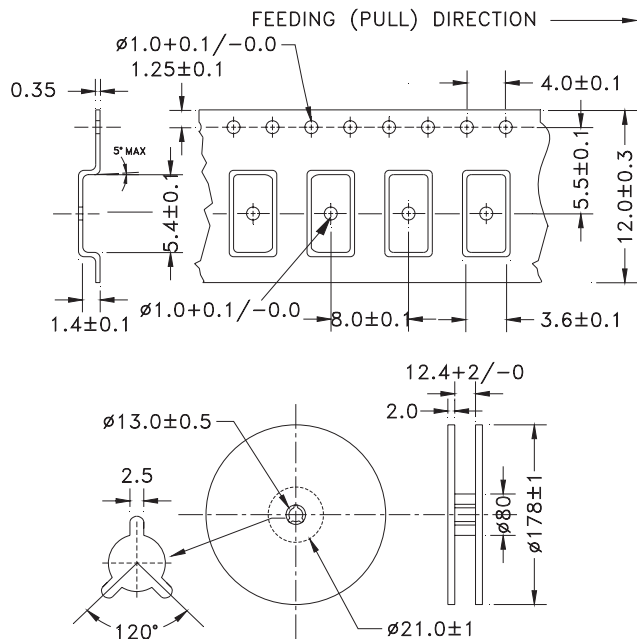
RoHS / RoHS II Compliant

Figure 1: Dimensions of the package. The figure consists of three views: a top view, a side view, and a bottom view. The top view shows a square package with dimensions 0.197±0.004 (5.0±0.1) mm for the width and 0.126±.004 (3.2±0.1) mm for the height. The side view shows a cross-section with a 'Metal Cap' and a 'Ceramic Base', with a total height of 0.051 max. (1.3 max.) mm. The bottom view shows a square package with dimensions 0.100±0.008 (2.54±0.20) mm for the width and 0.047±0.008 (1.2±0.2) mm for the height. The bottom view also shows four mounting pads labeled 1, 2, 3, and 4, with a reference dimension of 0.039 ref. (1.00 ref.) mm for the pad width and 0.047 ref. (1.20 ref.) mm for the pad spacing.

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

Dimensions: Inches (mm)

Tape and reel 1,000pcs/reel



Need a test socket for the ASSFLP Series?
To view compatible **PRECISION TEST**
and BURN-IN SOCKETS for these parts,
click here.

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.



The Power of Linking Together

Visit www.abracon.com for Terms and Conditions of Sale