



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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



5.0 x 3.2 x 1.3 mm

ASSFLP SERIES



ESD Sensitive



RoHS / RoHS II Compliant

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 (V <sub>dd</sub> ):	V <sub>dd</sub> = 3.3V	2.97	3.3	3.63	V	Standard
	V <sub>dd</sub> = 2.5V	2.25	2.5	2.75	V	Option 1
Input Current:	8.000 to 49.999MHz		10	20	mA	V <sub>dd</sub> = 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 <sub>dd</sub> = 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	%	@ 1/2V <sub>dd</sub> , CL=15pF
Rise and Fall Time (Tr/Tf)**:	8.000 to 49.999MHz		2.0	5.0	ns	V <sub>dd</sub> = 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 <sub>dd</sub> = 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*V <sub>dd</sub>			V	
	VOL			0.1*V <sub>dd</sub>	V	
Start-up Time:			2.0	10	ms	
Tri-state function (Stand-by) :	"1" (VIH ≥ 0.7*V <sub>dd</sub> ) or Open: Oscillation "0" (VIH < 0.3*V <sub>dd</sub> ) : 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,.

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5.0 x 3.2 x 1.3 mm

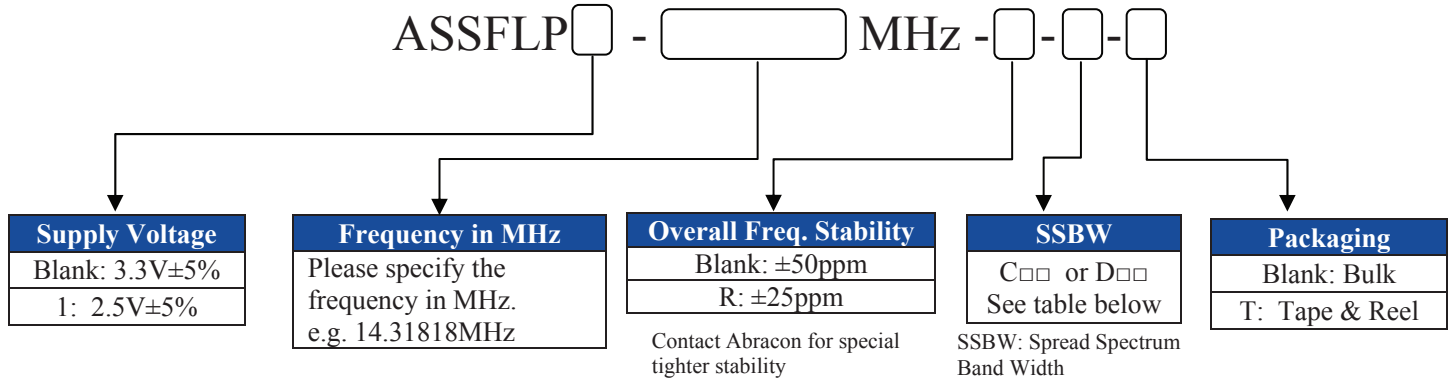
ASSFLP SERIES



RoHS / RoHS II Compliant

## OPTIONS & PART IDENTIFICATION:

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**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

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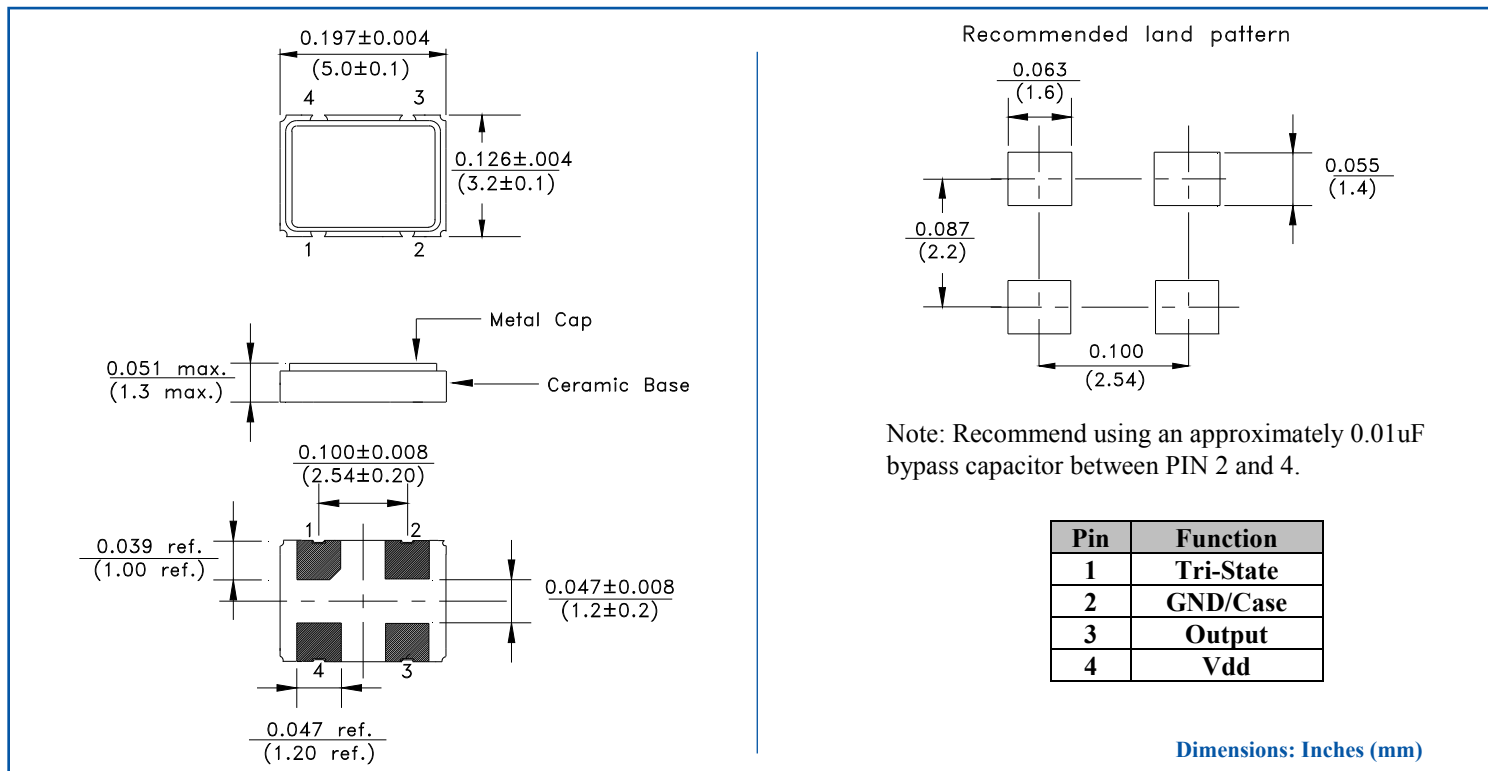


5.0 x 3.2 x 1.3 mm

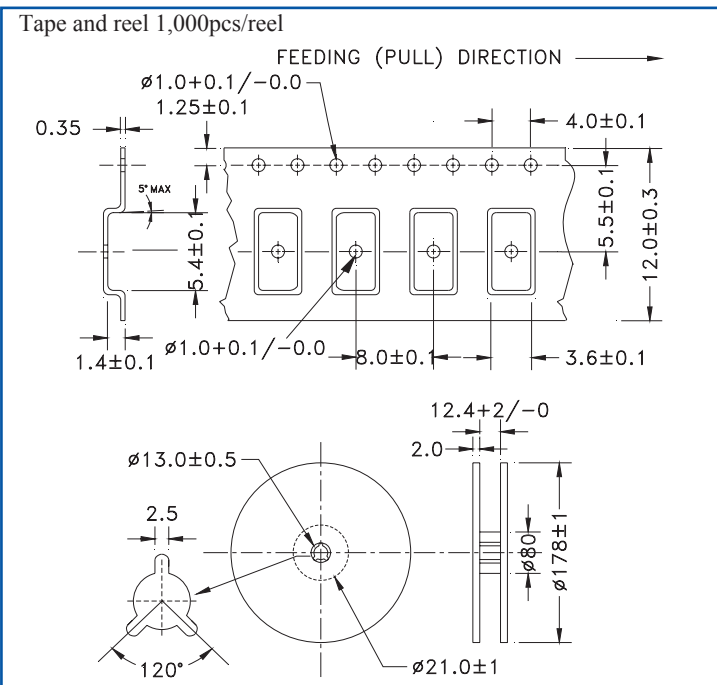
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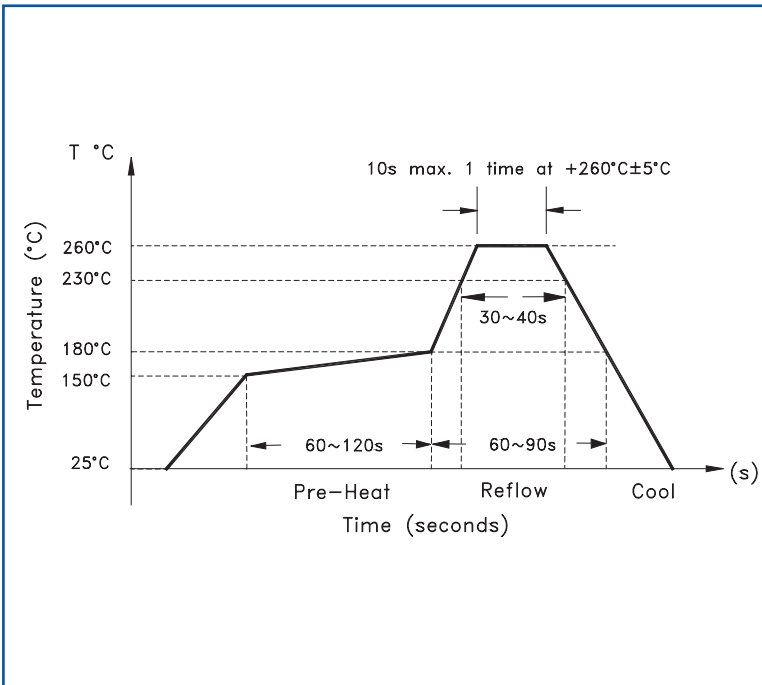
## OUTLINE DRAWING:



## TAPE & REEL:



## REFLOW PROFILE



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

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