ULTRA MINIATURE PLASTIC PACKAGE PURE SILICON™ CLOCK OSCILLATOR

ASFLM



Life Size

5.0 x 3.2 x 0.85mm

Pb RoHS Compliant

FEATURES:

- Ultra Miniature Pure Silicon™ Clock Oscillator
- MEMS Technology by Discera
- Low Power Consumption <10mA
- Low Stand by Current <1uA
- Exceptional Stability Over Temp. at 40 to +85°C
- Available over Extended Temp Range
- Available in 30kG Shock Resistance Configuration
- Low Cost-Compact QFN Plastic Packaging
- Compact Package design

APPLICATIONS:

- CCD Clock for VTR Camera
- Equipment Connected to PCs
- Low Profile Equipment
- Lower Cost Crystal Oscillator Replacement
- Computers and Peripherals
- Portable Electronics (MP3 Players, Games)
- Consumer Electronics such as TV's, DVR's, etc.
- Vibrant, Shock-Prone & Humid Environments for Industrial Equipment
- Demanding Military & Automotive Electronics

MEMSPEED PRO II™
Clock Oscillator Programmer
Available Now!
Click here for more details

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range:		1.0	-----	150	MHz	
Operating Temperature:		0	-----	+70	°C	See options
Storage Temperature:		-55	-----	+150	°C	
Overall Frequency Stability*:		-100	-----	+100	ppm	See options
Supply Voltage (Vdd):		+1.8 ~ +3.3			V	See options
Supply Current (no load):	1.0 to 39.9999MHz	-----	3	10	mA	No load RL=∞ T=25°C
	40.0 to 79.9999MHz	-----	4	10		
	80.0 to 124.9999MHz	-----	5	10		
	125.0 to 150MHz	-----	6	10		
Output Voltage:	V_{OH}	0.8*V_{dd}	-----	-----	V	15pF
	V_{OL}	-----	-----	0.2*V_{dd}		
Rise Time:	Tr	-----	1.3	2.0	ns	15pF; T=25°C 20%/80%*VDD
Fall Time:	Tf	-----	1.3	2.0		
Output Load:		15pF max / 10kΩ min.			pF	See options
Symmetry:		45	-----	55	%	@1/2Vdd
Startup Time:		-----	1.5	3.0	ms	
Disable Time:		-----	20	100	ns	
Disable Stand-by Current:		-----	-----	1	uA	
Tri-state Function (Stand-by) :		"1" (VIH≥0.75*Vdd) or Open: Oscillation "0" (VIH<0.25*Vdd) : Hi Z			V	
Cycle to cycle jitter:		-----	95	-----	ps	F=100MHz
Aging:		-5.0	-----	+5.0	ppm	First year

Absolute Maximum Ratings

Item	Minimum	Maximum	Unit	Condition
Supply Voltage	-0.3	+4.0	V	
Input Voltage	-0.3	Vdd+0.3	V	
Junction Temp.	-----	+150	°C	
Soldering Temp.	-----	+260	°C	40sec max
ESD			V	
HBM		2,000		
MM		200		
CDM		500		

30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

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PART NUMBER FOR PROGRAMMED ORDER S

Programmed Orders (Quantity > 1,000pcs)

ASFLM ☐ - ☐☐☐☐☐☐ MHz - ☐☐ - ☐

Supply Voltage
1: 3.0 ± 0.3V
2: 3.3 ± 0.3V
3: 2.5 ± 0.2V
4: 1.8 ± 0.15V
5: 2.8 ± 0.2V

Frequency in MHz
e.g. 14.3181 MHz (Maximum 4 digits after decimal)

Operating Temp.
Blank: 0°C ~ +70°C
E: -20°C ~ +70°C
L: -40°C ~ +85°C

Overall Freq. Stability
Blank: ±100ppm
R: ±25ppm
C: ±50ppm

Packaging
Blank: 72pcs / Tube
T: 1,000pcs / reel
T3: 3,000pcs / reel

PART NUMBER FOR UN-PROGRAMMED ORDERS

Blank un-programmed oscillators and our low cost portable programmer are available for quick turn engineering requirements.
Please call ABRACON or visit our **MEMSpeed Pro** site at http://www.abracon.com/memspeedpro/memspeedpro.html for more information.

ASFLM - BLANK - ☐☐ - ☐

Operating Temp. Freq. Stability
EC: ± 50 ppm / -20°C to +70°C
ER: ± 25 ppm / -20°C to +70°C
LC: ± 50 ppm / -40°C to +85°C
LR: ± 25 ppm / -40°C to +85°C

Packaging
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T: 1,000pcs / reel
T3: 3,000pcs / reel

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ULTRA MINIATURE PLASTIC PACKAGE
PURE SILICON™ CLOCK OSCILLATOR

ASFLM

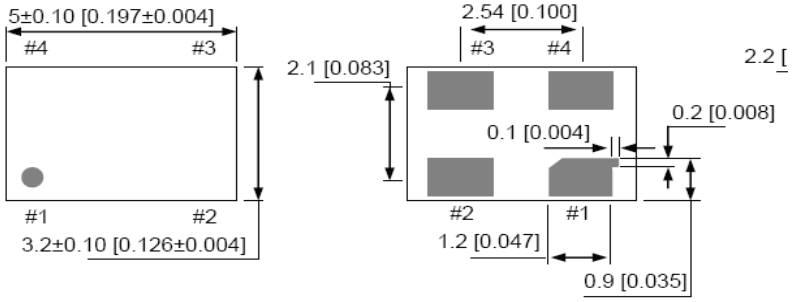


Life Size

5.0 x 3.2 x 0.85mm

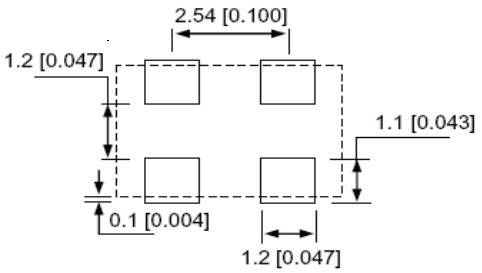
Pb RoHS Compliant

OUTLINE DRAWING:



No.	Pin Terminal
1	Standby#
2	GND
3	Output
4	VDD

Recommended Land Pattern

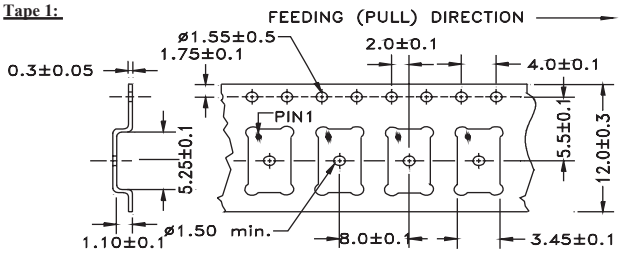


Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

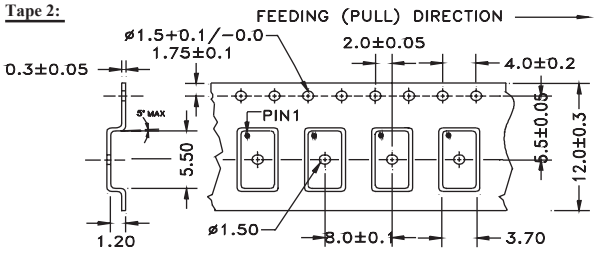
Dimensions: Inches (mm)

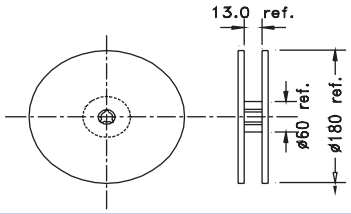
TAPE & REEL:

Tape 1:

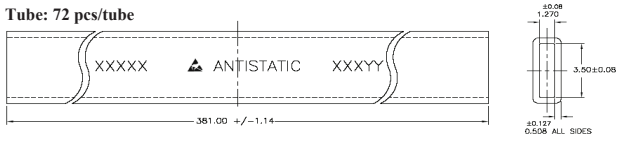


Tape 2:





Tube: 72 pcs/tube

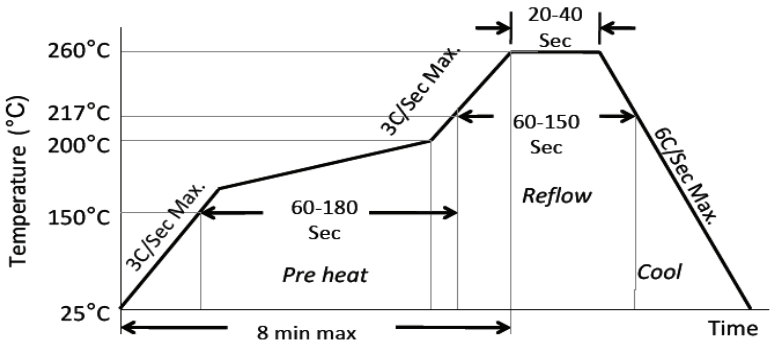


Unit orientation in tube:



Dimensions: mm

REFLOW PROFILE:



Ramp-Up Rate (200°C to Peak Temp)	3°C/Sec Max.
Preheat Time 150°C to 200°C	60-180 Sec
Time maintained above 217°C	60-150 Sec
Peak Temperature	255-260°C
Time within 5°C of actual Peak	20-40 Sec
Ramp-Down Rate	6°C/Sec Max.
Time 25°C to Peak Temperature	8 min Max.



Need a test socket for the ASFLM Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, **click here. P/N: AXS-5032-04-07**

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