

ULTRA MINIATURE PLASTIC PACKAGE PURE SILICON™ CLOCK OSCILLATOR

ASFLM



ASFLM

RoHS
Compliant

Life Size 5.0 x 3.2 x 0.85mm

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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™
Clock Oscillator Programmer
AVAILABLE NOW!

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N	ASFLM Series
Frequency range	1.000 MHz to 150 MHz
Operating temperature	0°C to + 70°C (see options)
Storage temperature:	-55° C to + 150 C
Overall Frequency Stability	± 100 ppm max. (see options)
Supply Voltage (Vdd)	See options
Supply Current (No Load)	3.0mA typ, 10.0mA max (1.0 to 39.9999MHz) 4.0mA typ, 10.0mA max (40.0 to 79.9999MHz) 5.0mA typ, 10.0mA max (80.0 to 124.9999MHz) 6.0mA typ, 10.0mA max (125.0 to 150MHz) (T=+25°C, C _L =0pF, R _L =∞, Vdd=3.3 ± 0.3V, 3.0 ± 0.3V, 2.8 ± 0.2V, 2.5 ± 0.2V, 1.8 ± 0.15V)
Symmetry	45/55 % max.@ 1/2Vdd
Rise and fall time (Tr/Tf)	1.3ns typ, 2ns max. (+25°C, C_L=15pF, 20/80% Vdd.)
Output load	15 pF max, 10 kohms min.
Output voltage:	VOH = 0.8* Vdd min. ; VOL = 0.2* Vdd max.
Input voltage:	VIH = 0.75* Vdd min. ; VIL = 0.25* Vdd max.
Start-up time	3.0ms typ, 10ms max.
Disable time	20ns typ, 100ns max.
Tri-State function (Stand-by)	"1" or open: Oscillation; "0" : No oscillation/Hi Z
Stand-by Current	1uA max. (T=+25 ° C, Vdd=3.3 ± 0.3V, 3.0 ± 0.3V, 2.8 ± 0.2V, 2.5 ± 0.2V, 1.8 ± 0.15V)
Aging at +25°C/year	± 5ppm max.
Jitter (Cycle to Cycle, reference only):	100MHz: 95 ps

Absolute Maximum Ratings

Item	Min.	Max	Unit	Condition
Supply Voltage	-0.3	+4.0	V	
Input Voltage	-0.3	VDD+0.3	V	
Junction Temp	-	+150	°C	
Storage Temp	-55	+150	°C	
Soldering Temp	-	+260	°C	40 sec max.
ESD				
HBM	-	2000	V	
MM	-	200		
CDM	-	500		

ABRACON IS
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➤ PART NUMBER FOR PROGRAMMED ORDERS

ASFLM□ - Frequency - □ - □ - □

Supply Voltage		Frequency e.g. 14.3181 MHz (Maximum 4 digits after decimal)	Operating Temp.		Freq. Stability		Packaging	
1	3.0 ± 0.3V			Blank	0°C to +70°C	Blank	± 100 ppm	Blank
2	3.3 ± 0.3V	E		-20°C to +70°C	C	± 50 ppm	T	Tape and Reel (1000pcs/reel)
3	2.5 ± 0.2V	L		-40°C to +85°C	R	± 25 ppm		
4	1.8 ± 0.15V							
5	2.8 ± 0.2V							

Please contact Abracon for order assistance for high shock application.

➤ 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 MEMSpeedPro site at <http://www.abracon.com/memspeedpro/memspeedpro.html> for more information.

ASFLM - BLANK - □□ - □

Operating Temp. Freq. Stability		Packaging	
EC	± 50 ppm / -20°C to +70°C	Blank	Tube (72pcs/tube)
ER	± 25 ppm / -20°C to +70°C	T	Tape and Reel (1000pcs/reel)
LC	± 50 ppm / -40°C to +85°C		
LR	± 25 ppm / -40°C to +85°C		

MEMSPEED PRO™ Clock Oscillator Programmer

Our new MEMSpeed Pro Clock Oscillator Programmer allows you to program parts to any frequency between 1 and 150 Mhz in 1 second! Order online now at www.abracon.com.



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Life Size



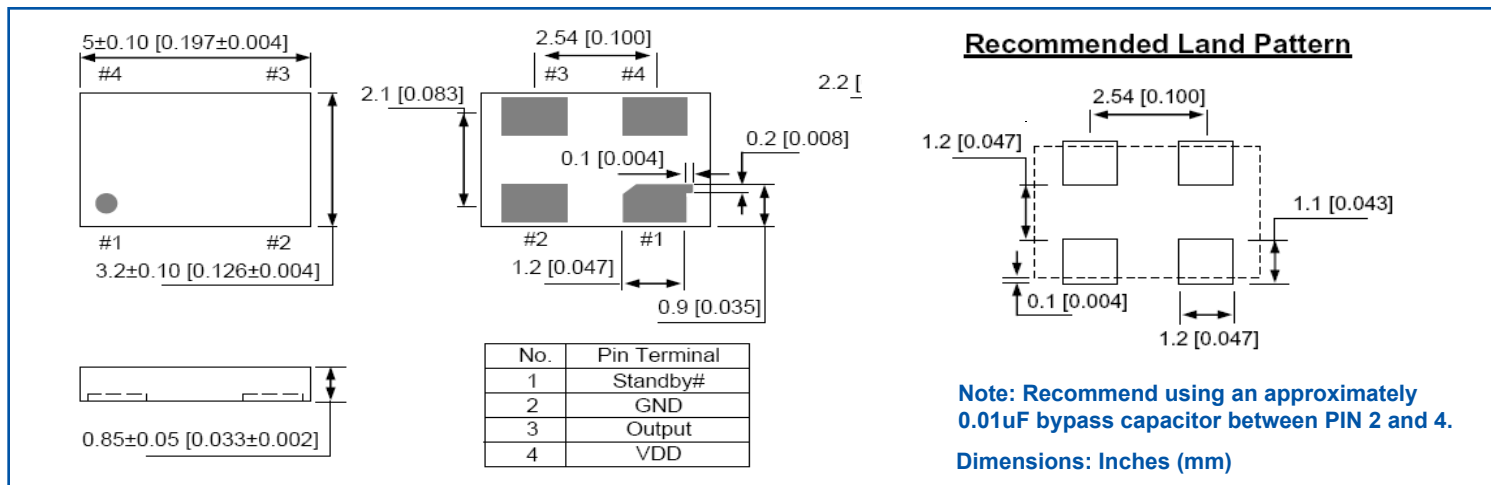
5.0 x 3.2 x 0.85mm

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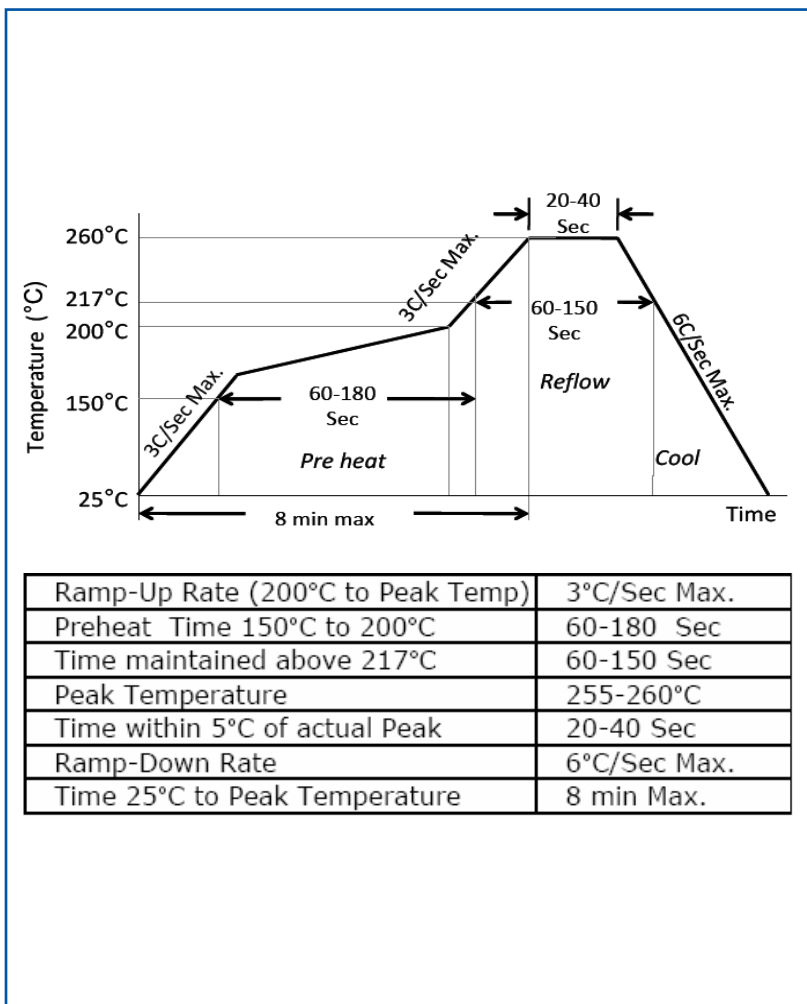
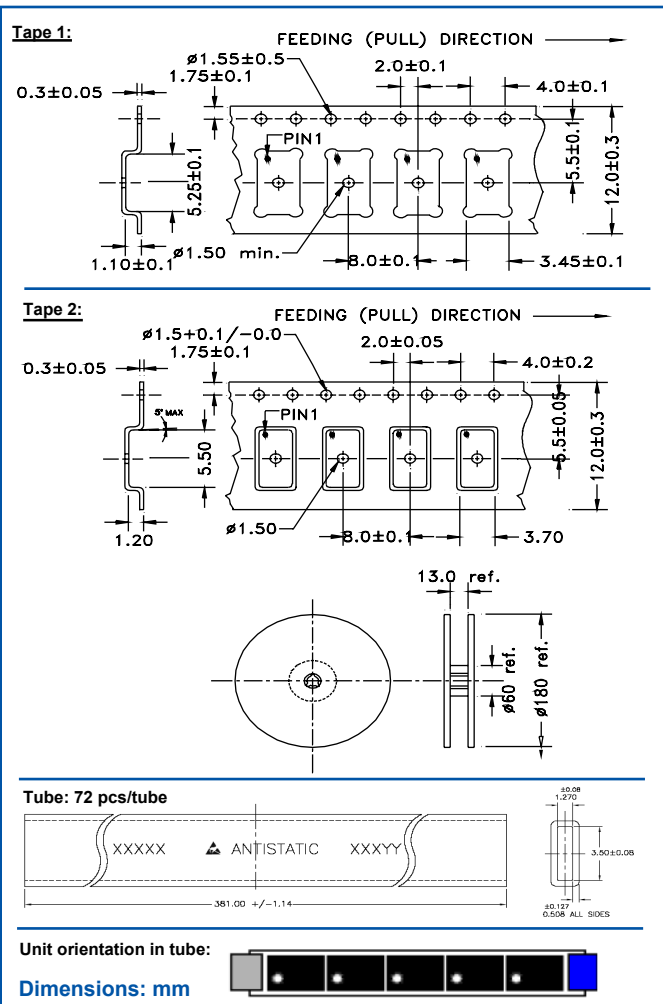
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OUTLINE DRAWING:



TAPE & REEL:

REFLOW PROFILE:



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**

NOTE: Abracon manufactured products are intended for general commercial and industrial use. For applications requiring high reliability and/or presenting extreme operating environment, written consent & authorization from Abracon is required.

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