ULTRA MINIATURE PLASTIC PACKAGE PURE SILICONTM CLOCK OSCILLATOR

ASDM





2.5 x 2.0 x 0.80 mm

FEATURES:

- Ultra Miniature Pure SiliconTM Clock Oscillator
- MEMS Technolog y by Discera
- Low Power Consumption < 10mA
- Exceptional Stability Over Temp. at 40 to +85°C
- 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



> 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 Valtaga		V_{OH}	0.8*V _{dd}				
Output Voltage:		$V_{ m OL}$			0.2*V _{dd}	V	15pF
Rise Time:		Tr		1.3	2.0		15pF; T=25°C
Fall Time:		Tf		1.3	2.0	ns	20%/80%*VDD
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		





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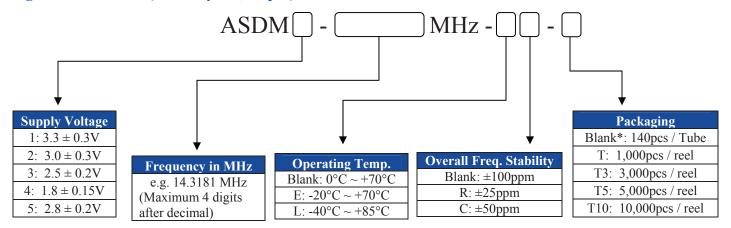
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> OPTIONS AND PART IDENTIFICATION:

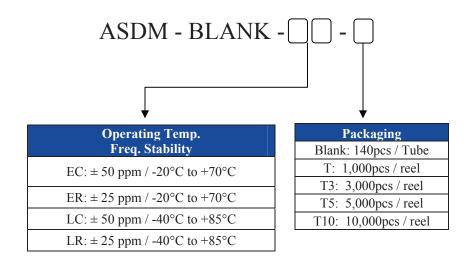
Programmed Orders (Quantity > 1,000pcs)



^{*} For Quick turn-around programmable orders < 1000pcs: Due to the immediate availability of stock and the qty of the order, the parts may be delivered as BULK: Cut Tape, Loose parts in Antistatic Bag or in Tube(s). The MOQ per the series will still apply for Tube packaging.

Un-Programmed Orders (Quantity < 1,000pcs)

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





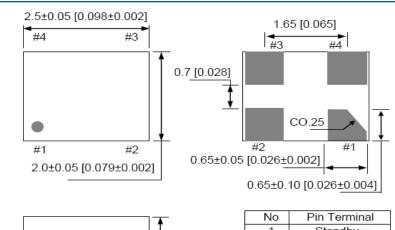
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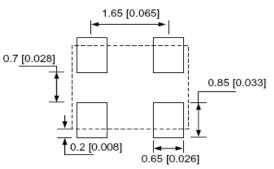


OUTLINE DRAWING:



No	Pin Terminal		
1	Standby		
2	GND		
3	Output		
4	VDD		

Recommended Land Pattern

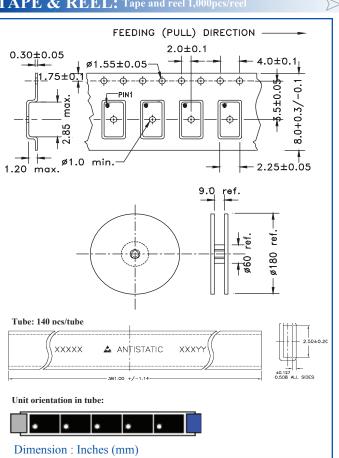


Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

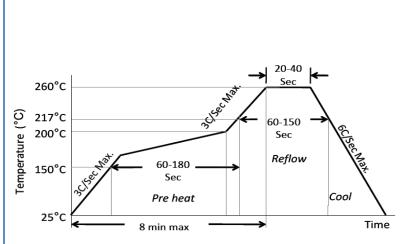
Dimension: mm (Inches)

TAPE & REEL: Tape and reel 1,000pcs/reel

0.85±0.05 [0.033±0.002]



REFLOW PROFILE:



3°C/Sec Max.
60-180 Sec
60-150 Sec
255-260°C
20-40 Sec
6°C/Sec Max.
8 min Max.



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

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