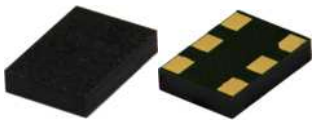
Ultra-Low Phase Jitter LVDS SMD Clock Oscillator



7.0 x 5.0 x 1.4mm

ASVMX-25.000MHz-5ABB

ESD Sensitive

RoHS/RoHS II compliant

Moisture Sensitivity Level – MSL 3

FEATURES:

- 25MHz LVDS
- Typical phase noise: 100fs (Integration range: 1.875MHz-20MHz)
- ±50ppm total frequency stability over -40°C to +85°C temperature range
- Industry standard 6-Pin 7 x 5mm LGA package

APPLICATIONS:

- Communications
- Backplane reference clock
- SERDES reference clock
- FPGA

KEY ELECTRICAL SPECIFICATIONS

Item	Minimum	Maximum	Unit	Condition
Supply Voltage	-0.3	+3.6	V	
Storage Temp.	-55	+125	°C	
Lead Temp.(soldering, 10s)		+260	°C	
ESD (HBM)		2	kV	

VDD = 2.375 - 3.63V, TA = -40°C to +85°C, outputs terminated with 100 Ohms between Q and /Q.(1)

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency			25.000		MHz	
Operating Temperature (T_A)		-40		+85	°C	
Overall Frequency Stability (2)		-50		+50	ppm	
Supply Voltage (V_{DD})		+2.375		+3.63	V	
Supply Current (I_{DD})				90	mA	
Output Logic Level	V_{OH}	1.248	1.375	1.602	V	$V_{OH\ max}= V_{CM\ max}+1/2\ V_{OD\ max}$
	V_{OL}	0.898	1.025	1.252	V	$V_{OL\ min}= V_{CM\ min}-1/2\ V_{OD\ max}$
Output Differential Voltage (V_{OD})		247	350	454	mV	
Common Mode Output voltage (V_{CM})		1.125	1.2	1.375	V	
Start-up Time				20	ms	
Rise Time (Tr)		100		400	ps	RL=100Ω , CL=0pF 20% to 80%
Fall Time (Tf)		100		400		
Duty Cycle		45		55	%	
Phase Noise	Integration Range: 12kHz to 20MHz		220		fsRMS	
	Integration Range: 1.875MHz to 20MHz		100			

Notes:

1. Guaranteed after thermal equilibrium
2. Inclusive of initial accuracy, temperature drift, aging, shock, vibration from -40°C to +85°C.

PART IDENTIFICATION

ASVMX-25.000MHz -5ABB - ☐

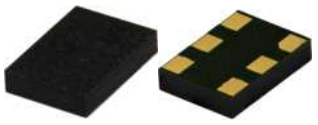
Packing
Blank: Bulk or Tube
T: Tape & Reel (1k/reel)

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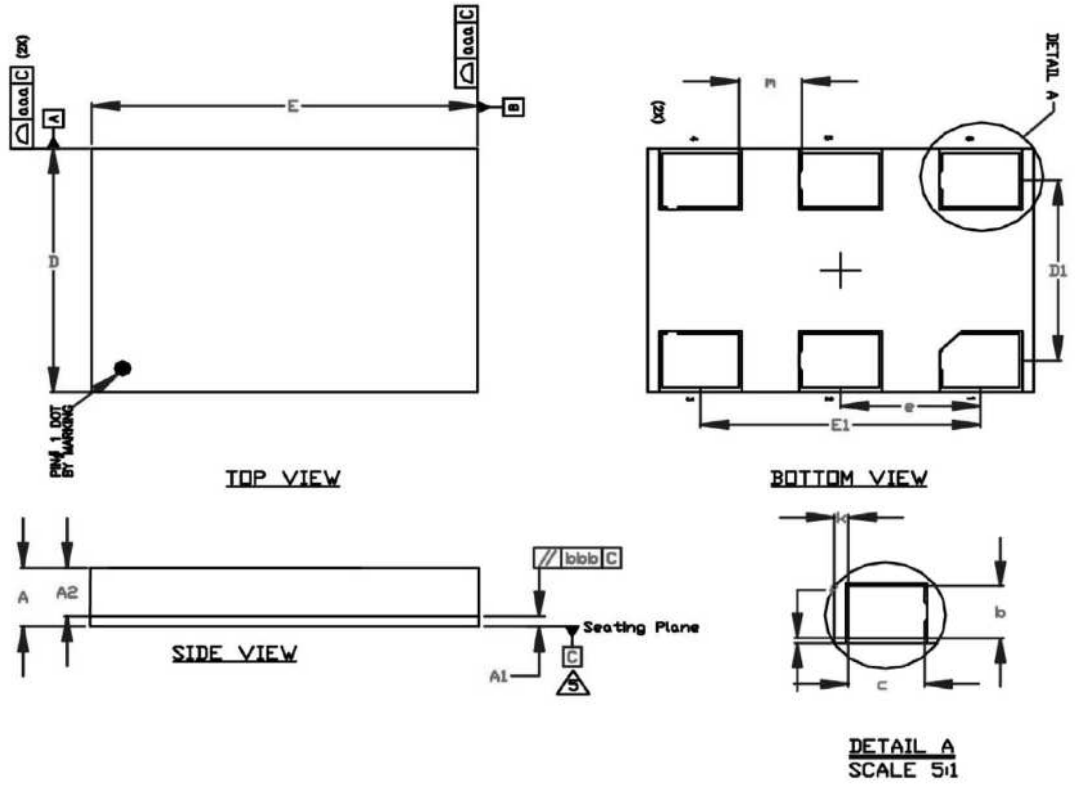
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RoHS/RoHS II compliant



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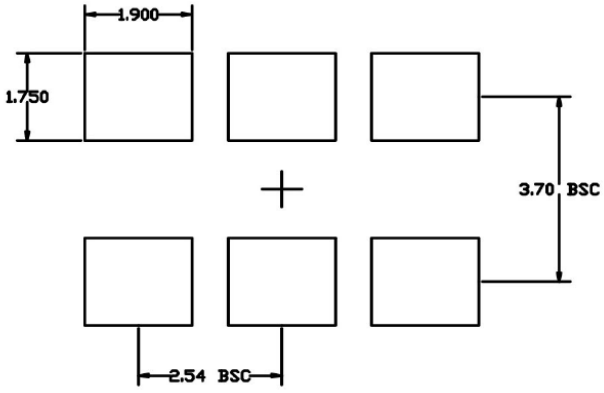
OUTLINE DIMENSION



Ref.	Min.	Nom.	Max.
A	1.260	1.330	1.400
A1	0.190	0.230	0.270
A2	1.070	1.100	1.130
D	4.900	5.000	5.100
D1		3.700 BSC	
E	6.900	7.000	7.100
E1		5.080 BSC	
b	1.050	1.100	1.150
c	1.350	1.400	1.450
e		2.540 BSC	
f	0.050	0.100	0.150
k	0.210	0.260	0.310
m	1.090	1.140	1.190
n		36	

Dimensional Tolerance	
aaa	0.100
bbb	0.070

Recommended Land Pattern



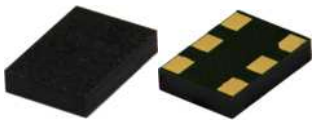
Dimensions: mm

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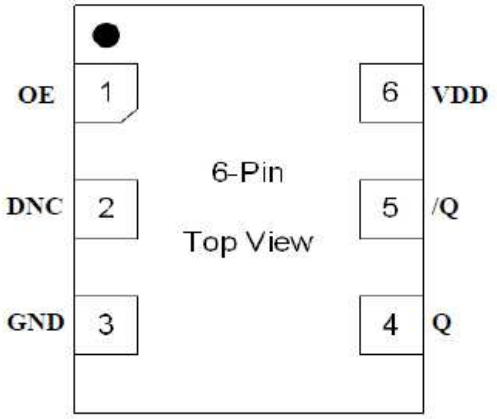
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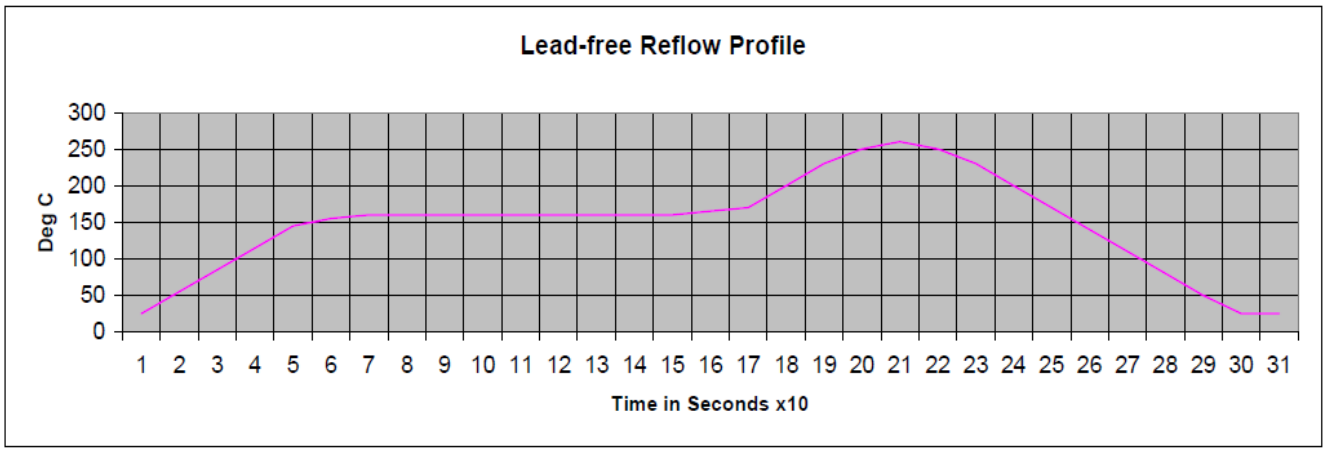
7.0 x 5.0 x 1.4mm

PIN CONFIGURATION



Pin #	Pin Name	Pin Type	Pin Level	Pin Function
1	OE	I, SE	LVCMOS	Output Enable, disables output to tri-state. 0 = Disabled, 1= Enabled, 50k Ω Pull-up
2	DNC			Make no connection, leave floating
3	GND	PWR		Power Supply Ground
4	Q	O	LVDS	Clock Output
5	/Q	O	LVDS	Complimentary Clock Output
6	VDD	PWR		Power Supply

REFLOW PROFILE

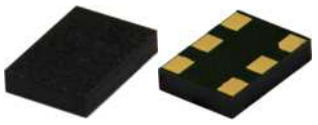


Parameters	Specifications
Average Ramp-up Rate	3℃ /second max.
Pre-Heat Temp 150 – 200℃	60 – 180 second
Temp > 217℃	60 – 150 second
Time @ Peak Temperature	20 – 40 second
Peak Temperature	260℃ + 0℃ / -5℃
Ramp-down Rate	-6℃ / second max.
Time 25℃ to Peak Temp.	8 minutes max.

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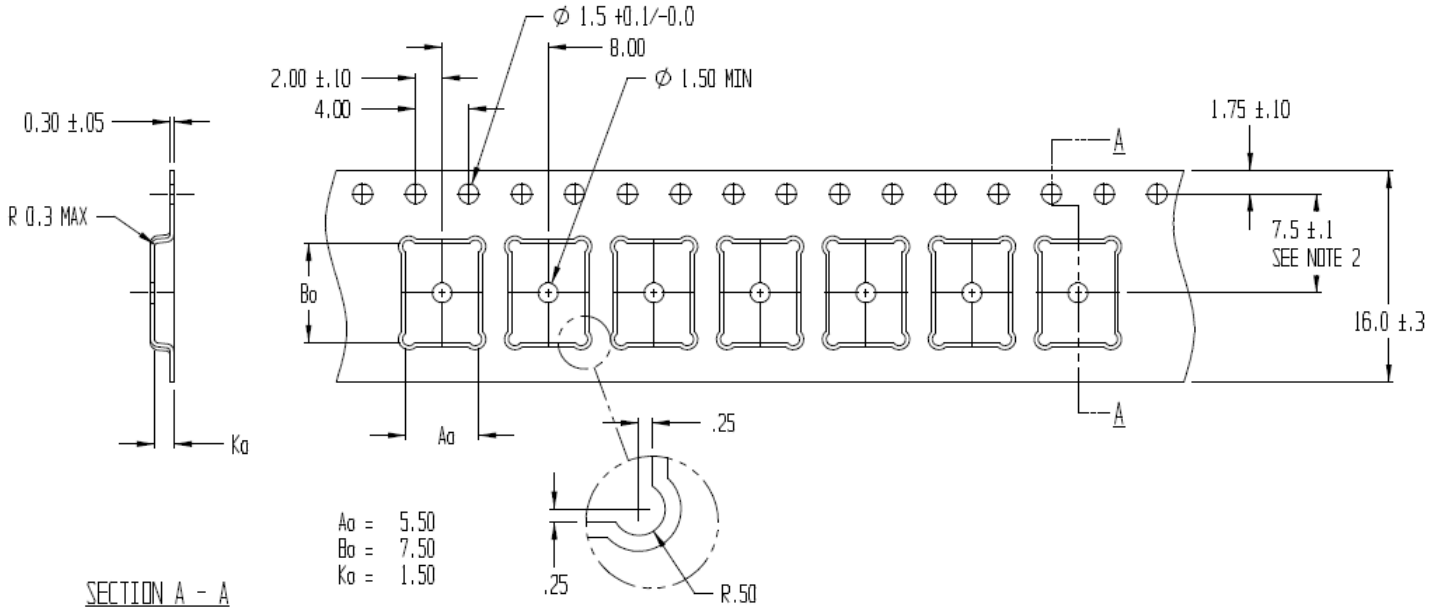


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TAPE & REEL

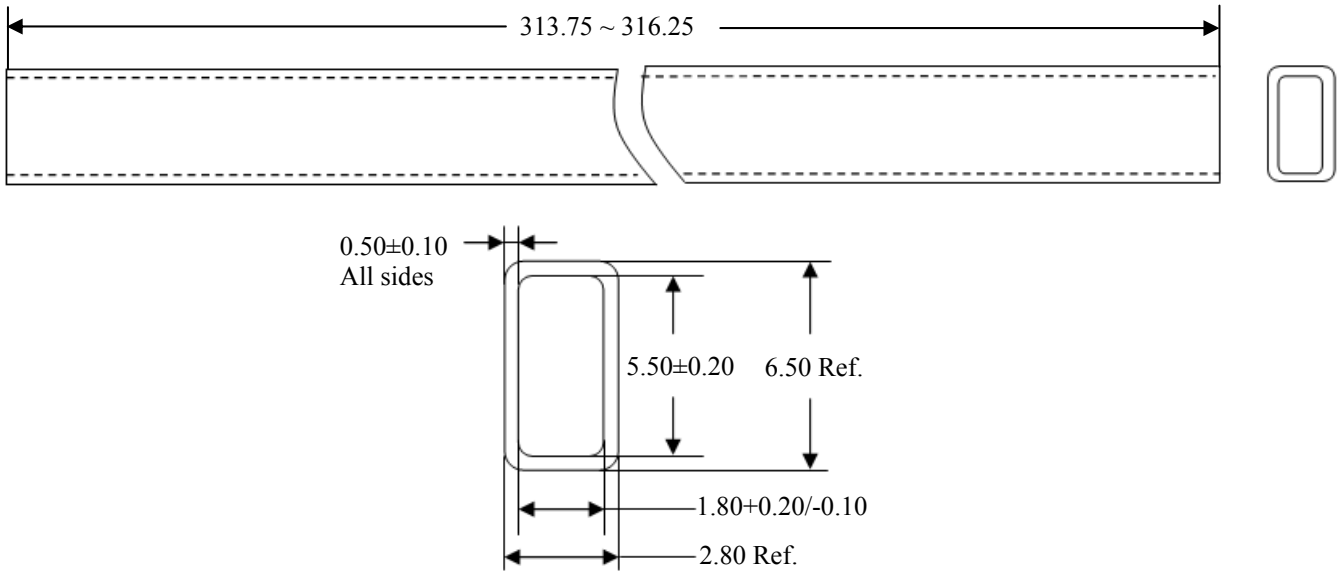
T= Tape & Reel, 1000pcs/reel. Reel Size = 7-inch Reel

MSL-3 packaging applies to –T option.



Blank = Bulk or Tube (43pcs/tube)

MSL-3 packaging applies to MOQ=43 units (tube)



Dimensions: mm

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