

Key Electrical Specifications – $V_{dd}=2.5V$

Parameters		Minimum	Typical	Maximum	Units	Notes
Supply Current (no load):	1.0 to 39.9999MHz		6	15	mA	CL=0pF RL=∞ T=25°C (Standard CL: 15pF)
	40.0 to 79.9999MHz		7	15	mA	
	80.0 to 124.9999MHz		8	15	mA	
	125.0 to 150MHz		9	15	mA	
	1.0 to 39.9999MHz		7	15	mA	CL=0pF RL=∞ T=25°C (CL option: 25pF)
	40.0 to 79.9999MHz		8	15	mA	
	80.0 to 124.9999MHz		9	15	mA	
	125.0 to 150MHz		10	15	mA	
	1.0 to 39.9999MHz		8	16	mA	CL=0pF RL=∞ T=25°C (CL option: 40pF)
	40.0 to 79.9999MHz		9	16	mA	
	80.0 to 124.9999MHz		10	16	mA	
	125.0 to 150MHz		11	16	mA	
Output Voltage:	V_{OH}	$0.8 \cdot V_{dd}$			V	CL=15, 25pF
	V_{OL}			$0.2 \cdot V_{dd}$	V	
	V_{OH}	$0.9 \cdot V_{dd}$			V	
	V_{OL}			$0.1 \cdot V_{dd}$	V	
Rise Time: Fall Time:	T_r		1.0	2.0	ns	CL=15pF; T=25°C 20%/80%*VDD
	T_f		0.9	2.0	ns	
	T_r		1.1	2.0	ns	CL=25pF; T=25°C 20%/80%*VDD
	T_f		0.9	2.0	ns	
	T_r		1.0	2.0	ns	CL=40pF; T=25°C 20%/80%*VDD
	T_f		0.9	2.0	ns	
Cycle to Cycle Jitter:			50		ps	F=100MHz
Period Jitter RMS:			5		ps	F=100MHz

Key Electrical Specifications – $V_{dd}=3.3V$

Parameter	Minimum	Typical	Maximum	Units	Notes
Supply Current (no load):	1.0 to 39.9999MHz	7	15	mA	CL=0pF
	40.0 to 79.9999MHz	8	15	mA	RL=∞
	80.0 to 124.9999MHz	9	15	mA	T=25°C
	125.0 to 150MHz	10	15	mA	(Standard CL: 15pF)
	1.0 to 39.9999MHz	8	16	mA	CL=0pF
	40.0 to 79.9999MHz	9	16	mA	RL=∞
	80.0 to 124.9999MHz	10	16	mA	T=25°C
	125.0 to 150MHz	11	16	mA	(CL option: 25pF)
	1.0 to 39.9999MHz	8	16	mA	CL=0pF
	40.0 to 79.9999MHz	9	16	mA	RL=∞
	80.0 to 124.9999MHz	10	16	mA	T=25°C
	125.0 to 150MHz	11	16	mA	(CL option: 40pF)
Output Voltage:	V_{OH}	$0.8 \cdot V_{dd}$		V	
	V_{OL}		$0.2 \cdot V_{dd}$	V	CL=15pF
	V_{OH}	$0.9 \cdot V_{dd}$		V	
	V_{OL}		$0.1 \cdot V_{dd}$	V	CL=25, 40pF
Rise Time: Fall Time:	Tr	1.0	2.0	ns	CL=15pF; T=25°C
	Tf	0.9	2.0	ns	20%/80%*VDD
	Tr	1.0	2.0	ns	CL=25pF; T=25°C
	Tf	0.9	2.0	ns	20%/80%*VDD
	Tr	0.8	2.0	ns	CL=40pF; T=25°C
	Tf	0.8	2.0	ns	20%/80%*VDD
Cycle to Cycle Jitter:		50		ps	F=100MHz
Period Jitter RMS:		5		ps	F=100MHz



Absolute Maximum Ratings

Item	Minimum	Maximum	Unit	Condition
Supply Voltage	-0.3	+4.0	V	
Input Voltage	-0.3	V _{dd} +0.3	V	
Junction Temp.		+150	°C	
Storage Temp.	-55	+150	°C	
Soldering Temp.		+260	°C	40sec max
ESD			V	
HBM		4,000		
MM		200		
CDM		1,500		

OPTIONS AND PART IDENTIFICATION: (Left Blank if Standard)

Programmed Orders (Quantity > 1,000pcs)

ASEMB - MHz - - -

Frequency in MHz	Operating Temp.	Overall Freq. Stability	Output Load	Packaging
e.g. 14.3181 MHz (Maximum 4 digits after decimal)	Blank: 0°C ~ +70°C E: -20°C ~ +70°C L: -40°C ~ +85°C X: -40°C ~ +105°C	C: ±50ppm (STD) Y: ±10ppm R: ±25 ppm	Blank: 15pF 25: 25pF 40: 40pF	Blank*: 110pcs / Tube T: 1,000pcs / reel T3: 3,000pcs / reel T5: 5,000pcs / reel

* 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

Blank unprogrammed oscillators are available for quick turn engineering requirements. Please call ABRACON for more information.

ASEMB - BLANK - - - -

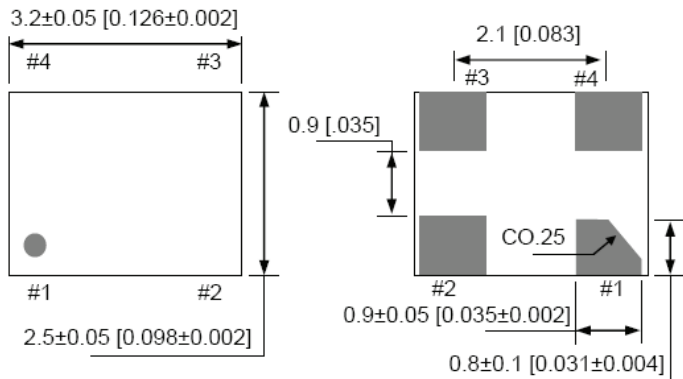
Operating Temp.	Overall Freq. Stability	Output Load	Packaging
Blank: 0°C ~ +70°C E: -20°C ~ +70°C L: -40°C ~ +85°C X: -40°C ~ +105°C	C: ±50ppm (STD) Y: ±10ppm R: ±25 ppm	Blank: 15pF 25: 25pF 40: 40pF	Blank: 110pcs / Tube T: 1,000pcs / reel T3: 3,000pcs / reel T5: 5,000pcs / reel



ASEMB

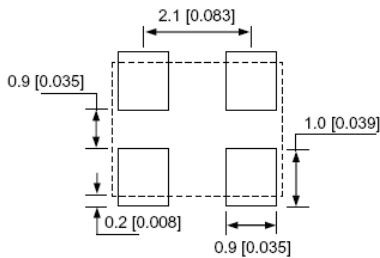
RoHS/RoHS II Compliant

OUTLINE DIMENSIONS:



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

Recommended Land Pattern

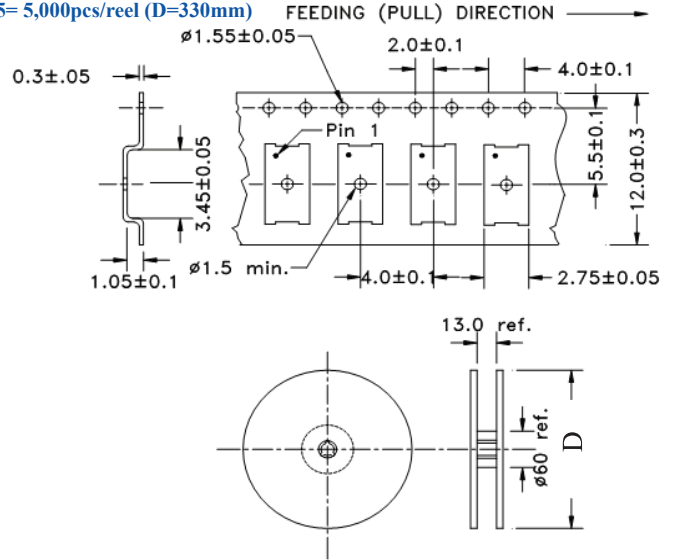


Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

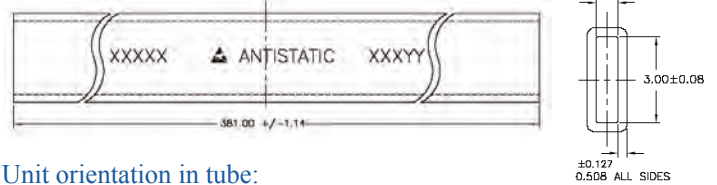
Dimensions: mm (inches)

TAPE AND REEL:

T= 1,000pcs/reel (D=180mm)
T3= 3,000pcs/reel (D=180mm)
T5= 5,000pcs/reel (D=330mm)



Tube: 110 pcs/tube

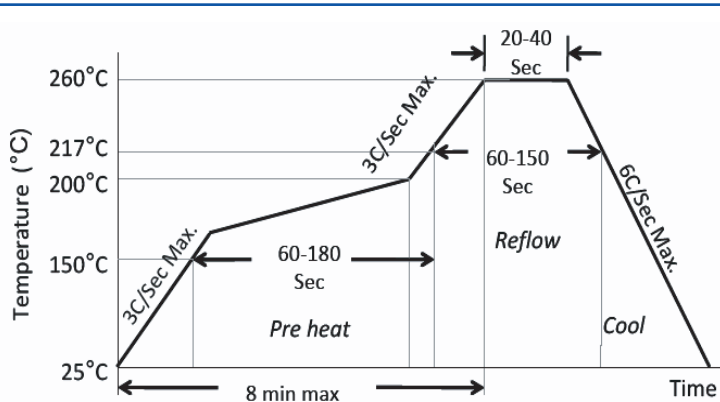


Unit orientation in tube:



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 ASEMB Series? To view compatible **PRECISION TEST SOCKETS** for these parts, [click here](#). PN: AXS-3225-04-02

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