

# Ultra Miniature SMD Crystal Clock Oscillator



ASCO

1.6 x 1.2 x 0.7mm

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Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

## FEATURES:

- Ultra miniature package: 1.6 x 1.2 x 0.7mm
- Tri-state function
- Suitable for high density SMT
- Suitable for RoHS compliant reflow process
- Electrical beam sealed package assures extreme accuracy and high reliability

## APPLICATIONS:

- CCD clock for VTR camera
- Computers and peripherals
- Portable electronics
- Mobile communication, PDA

## STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range*		7.0		80	MHz	
Operating Temperature		-10		+60	°C	See options
Storage Temperature		-40		+85	°C	
Overall Frequency Stability**		-50		+50	ppm	See options
Supply Voltage (Vdd)		2.97	3.3	3.63	V	Standard
		2.25	2.5	2.75		Option "1"
		1.62	1.8	1.98		Option "2"
Supply Current (I <sub>dd</sub> ) into 15pF Load	Vdd = 3.3 V		3.0	4.5	mA	1MHz ≤ F ≤ 20 MHz
			4.2	6.0		20 MHz < F ≤ 50 MHz
			6.0	8.5		50 MHz < F ≤ 80 MHz
	Vdd = 2.5 V		2.5	3.5		1MHz ≤ F ≤ 20 MHz
			3.0	4.5		20 MHz < F ≤ 50 MHz
			4.0	6.0		50 MHz < F ≤ 80 MHz
	Vdd = 1.8 V		2.0	3.0		1MHz ≤ F ≤ 20 MHz
			2.5	3.5		20 MHz < F ≤ 50 MHz
			3.5	5.0		50 MHz < F ≤ 80 MHz
Output Load				15	pF	CMOS
Output Voltage	V <sub>OH</sub>	0.9*Vdd			V	
	V <sub>OL</sub>			0.1*Vdd		
Tri-state function		"1" (VIH ≥ 0.7*Vdd) or Open : Oscillation "0" (VIH < 0.3*Vdd) : Hi Z				
Aging		-3.0		3.0	ppm	@+25°C First year
Symmetry @1/2Vdd		40	50	60	%	Standard
		45	50	55		Option S
Start-up Time				2.0	ms	
Rise/Fall Time (Tr/Tf)				5.0	ns	

\* Please contact Abracon for frequency <7MHz.

\*\*Overall frequency stability includes initial frequency tolerance @+25°C and stability over the operating temperature.



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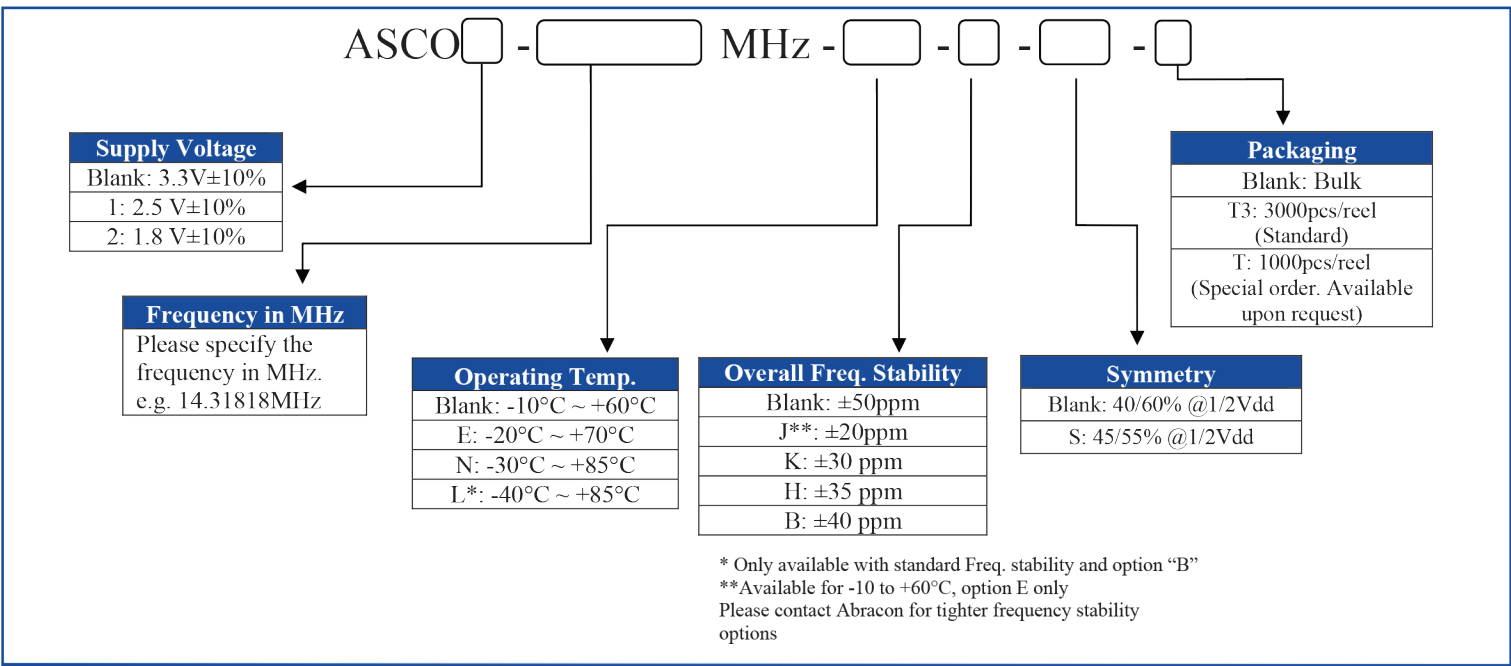


1.6 x 1.2 x 0.7mm

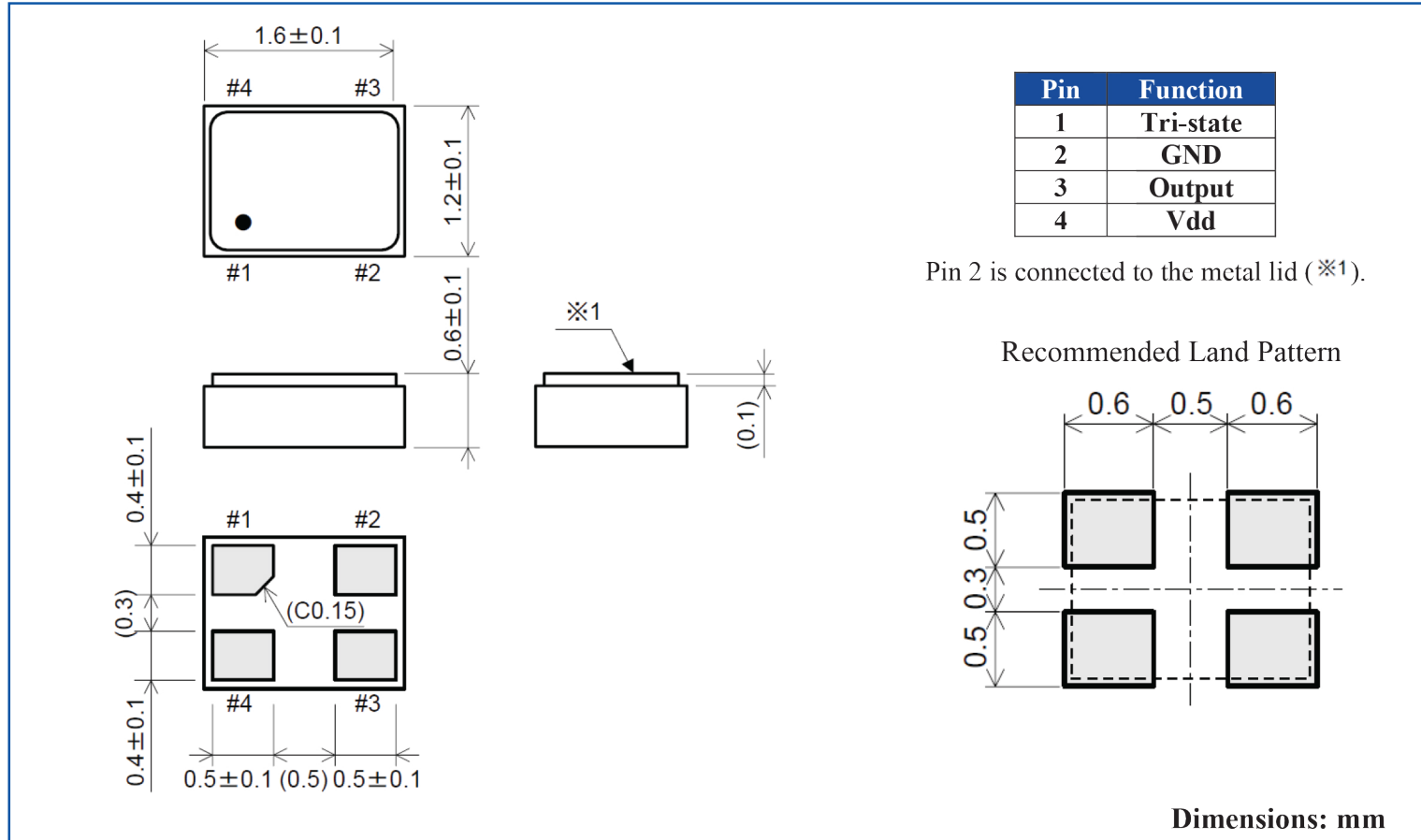
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RoHS/RoHS II compliant

## PART IDENTIFICATION:



## OUTLINE DRAWING:

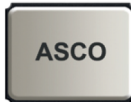


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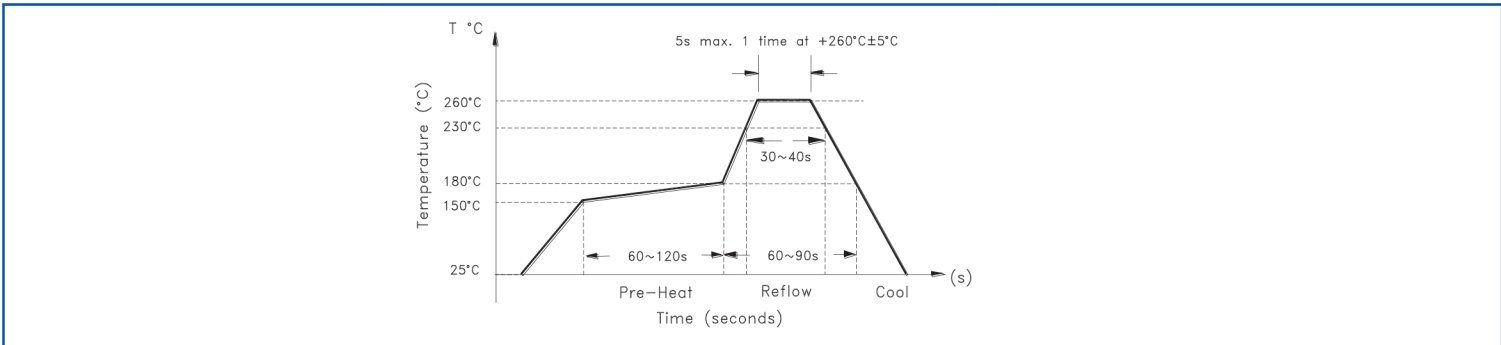
1.6 x 1.2 x 0.7mm

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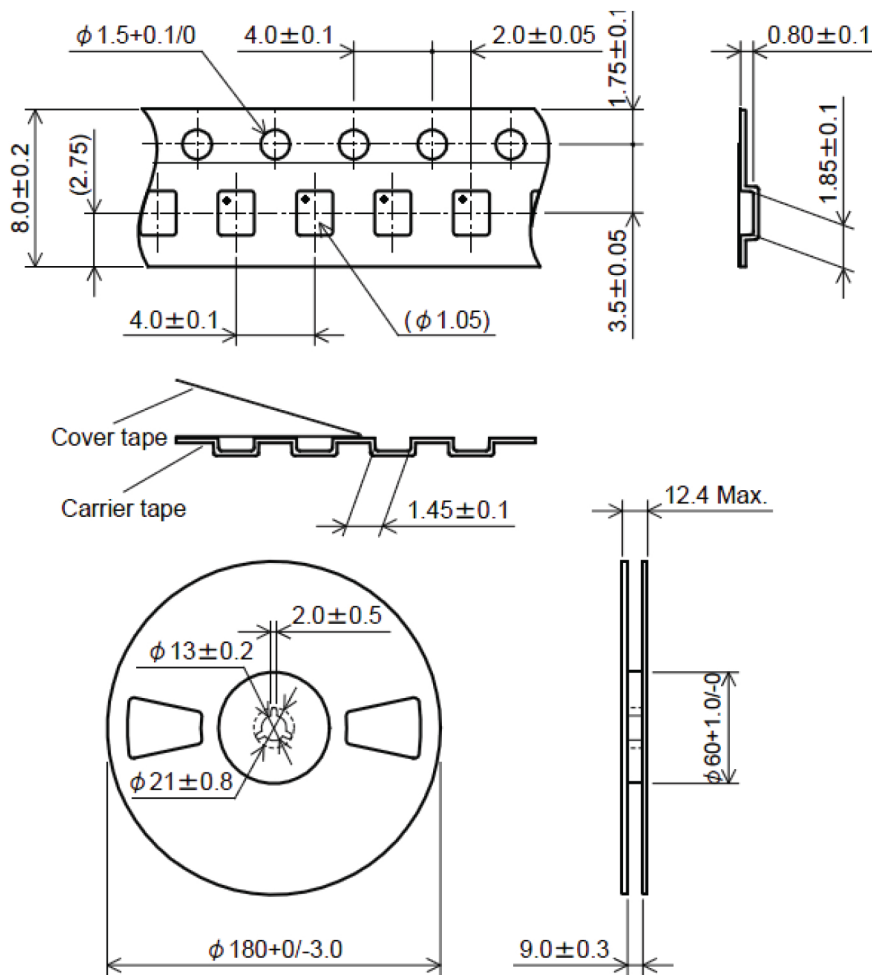
## REFLOW PROFILE:



## TAPE & REEL:

T3= 3,000pcs/reel (Standard)

T = 1,000pcs/reel (Special order. Available upon request)



Dimensions: mm

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