

Ultra Miniature SMD Crystal Clock Oscillator

ASCO



RoHS/RoHS II compliant

ASCO



1.6 x 1.2 x 0.7mm

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 (Idd) 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
Standby Current (IST)		1.1	3.0	µA	
Output Load			15	pF	CMOS
Output Voltage	V _{OH}	0.9*Vdd		V	
	V _{OL}		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	
RMS Phase Jitter			2.0	ps	(12kHz ~5MHz)

* Please contact Abraccon for frequency < 7MHz.

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

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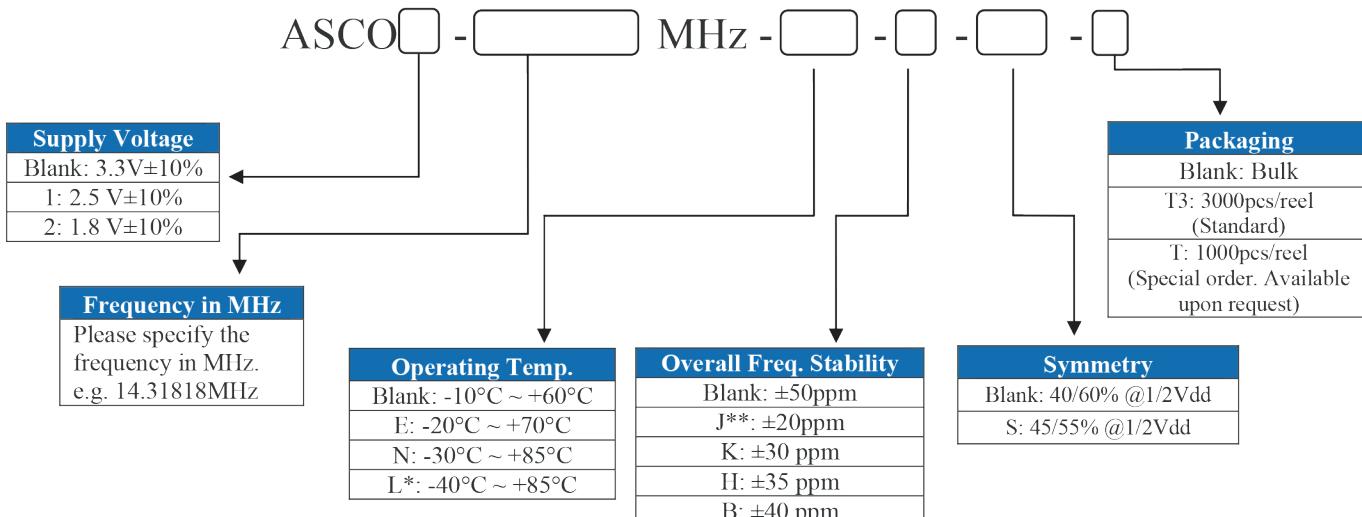
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1.6 x 1.2 x 0.7mm

PART IDENTIFICATION:

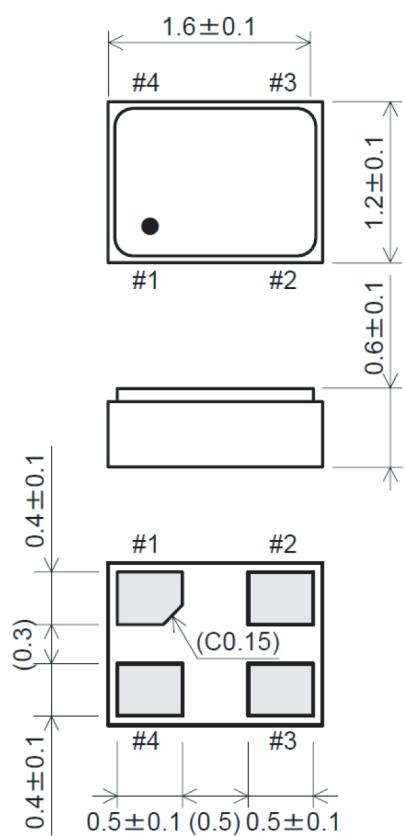


* Only available with standard Freq. stability and option "B"

**Available for -10 to +60°C, option E only

Please contact Abracon for tighter frequency stability options

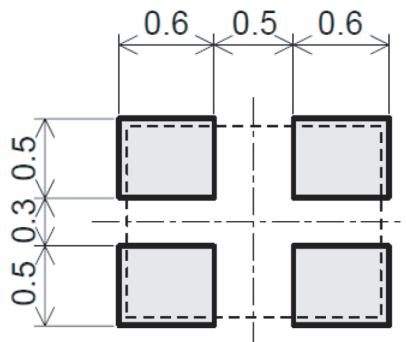
OUTLINE DRAWING:



Pin	Function
1	Tri-state
2	GND
3	Output
4	Vdd

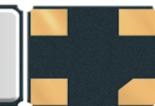
Pin 2 is connected to the metal lid (※1).

Recommended Land Pattern

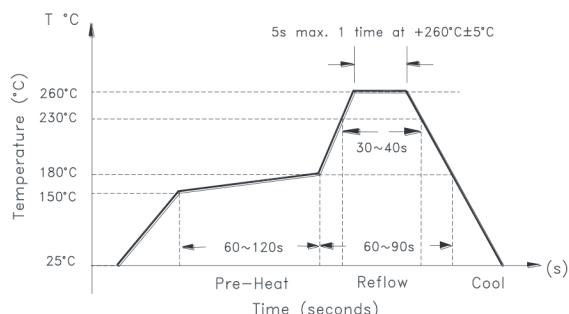


Dimensions: mm

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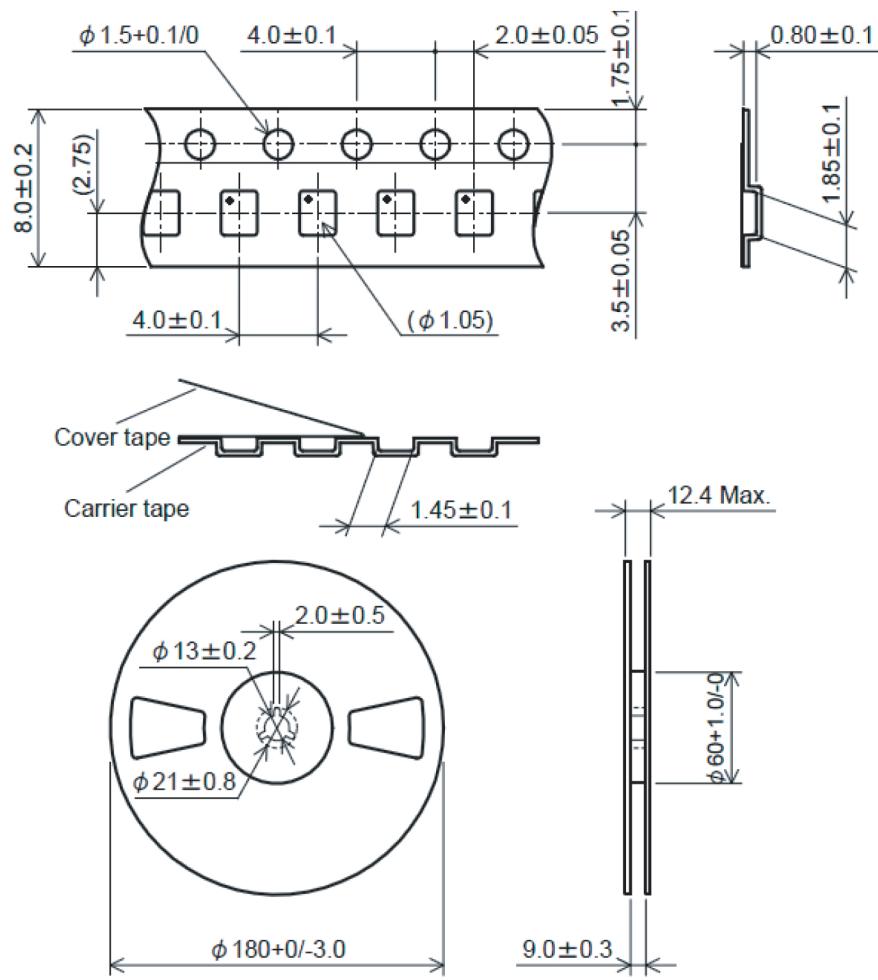
REFLOW PROFILE:



TAPE & REEL:

T3= 3,000pcs/reel (Standard)

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



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