

2.5Vdc CMOS COMPATIBLE SMD CRYSTAL CLOCK OSCILLATOR



ASE2

3.2 x 2.5 x 1.2m m

ASE2 SERIES



RoHS
Compliant

FEATURES:

- Compact and low in height at 1.2mm
- Low current consumption
2mA typ. for 19.2MHz
- Tri state function
- Suitable for RoHS reflow
- Tight stability option ± 20 ppm for -40 to $+85^\circ\text{C}$
- Seam sealed package assures high reliability

APPLICATIONS:

- CCD clock for VTR camera
- Equipment connected to PC or PC cards
- Wireless communication

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	0.625	-----	166	MHz	
Operating Temperature	-10	-----	+70	$^\circ\text{C}$	STD (See options)
Storage Temperature	-55	-----	+125	$^\circ\text{C}$	
Overall Frequency Stability	-100	-----	+100	ppm	See options
Supply Voltage (Vdd)	+2.375	2.5	+2.625	V	
Supply Current (Idd)	-----	2	8	mA	0.625 ~ 19.99 MHz
	-----	3	8		20 ~ 31.99 MHz
	-----	5	15		32 ~ 59.99 MHz
	-----	12	20		60 ~ 125.0 MHz
Symmetry @ 1/2Vdd	45	-----	55	%	0.625 ~ 89.999 MHz
	40	-----	60		90 ~ 125.0 MHz
Rise and Fall Time (Tr/Tf)	-----	3	5	ns	0.625 ~ 19.99 MHz
	-----	3	5		20 ~ 31.99 MHz
	-----	3	5		32 ~ 59.99 MHz
	-----	3	5		60 ~ 125.0 MHz
Output Load	-----	-----	15	pF	CMOS
Output Voltage (VOH)	0.9* Vdd	-----	-----	V	
Output Voltage (VOL)	-----	-----	0.1* Vdd	V	
Start-up Time	-----	0.6	3	ms	0.625 ~ 19.99 MHz
	-----	0.6	3		20 ~ 31.99 MHz
	-----	0.6	3		32 ~ 59.99 MHz
	-----	1.3	2		60 ~ 125.0 MHz
Tri-state function	"1" (VIH \geq 0.7*Vdd) or Open: Oscillation; "0" (VIL $<$ 0.3*Vdd) : Hi Z				
RMS Jitter:	-----	2	5	ps	0.625 ~ 19.99 MHz
	-----	2	5		20 ~ 31.99 MHz
	-----	2	5		32 ~ 59.99 MHz
	-----	2	5		60 ~ 125.0 MHz
Aging at 25 $^\circ\text{C}$ (first year)	-5	-----	+5	ppm	
Stand-by Current:	-----	-----	10	μA	

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ASE2 - MHz - - -

Frequency in MHz
e.g. 0.625MHz
24.576MHz
14.31818MHz
26.000MHz
200.000MHz

Operating Temp.
I: 0 $^\circ\text{C}$ ~ +50 $^\circ\text{C}$
D: -10 $^\circ\text{C}$ ~ +60 $^\circ\text{C}$
E: -20 $^\circ\text{C}$ ~ +70 $^\circ\text{C}$
F: -30 $^\circ\text{C}$ ~ +70 $^\circ\text{C}$
N: -30 $^\circ\text{C}$ ~ +85 $^\circ\text{C}$
L: -40 $^\circ\text{C}$ ~ +85 $^\circ\text{C}$

Overall Freq. Stability
J(*): ± 20 ppm
R: ± 25 ppm
K: ± 30 ppm
H: ± 35 ppm
B: ± 40 ppm
C: ± 50 ppm

Packaging
Blank: Bulk
T: 1000pcs/Reel

Contact ABRACON for wider temperature range.

*: Temp options I, D, E, and -10 $^\circ\text{C}$ to +70 $^\circ\text{C}$ only

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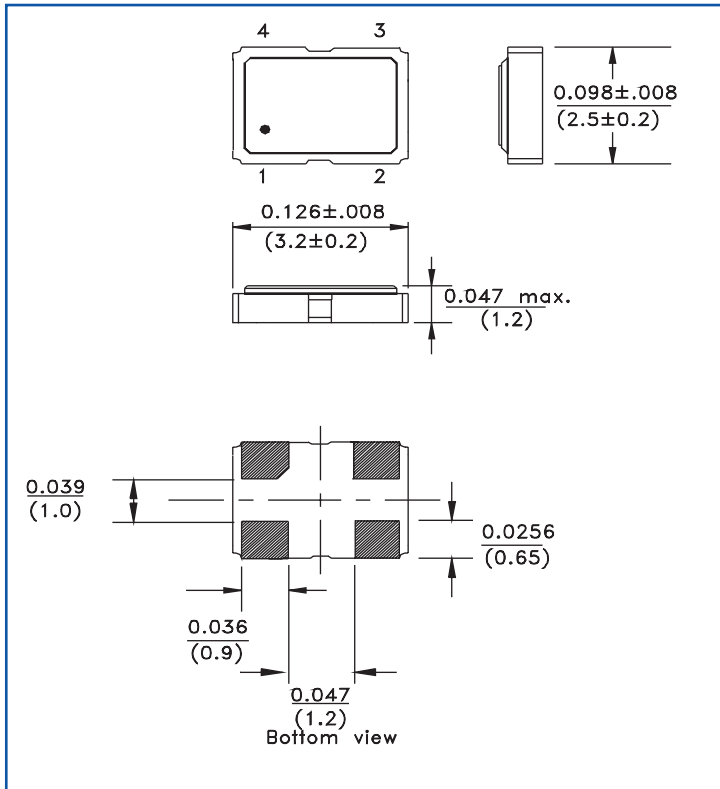


3.2 x 2.5 x 1.2mm

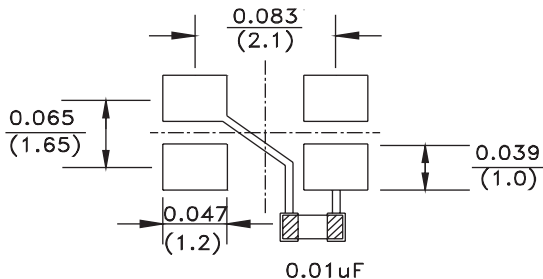
ASE2 SERIES



OUTLINE DRAWING:



Recommended land pattern



Note:

1. The outline package configuration varies with frequency range. Electrical properties, pin configuration, and land pattern are the same.
2. Recommend using an approximately 0.01 μF bypass capacitor between Pin 2 and 4.

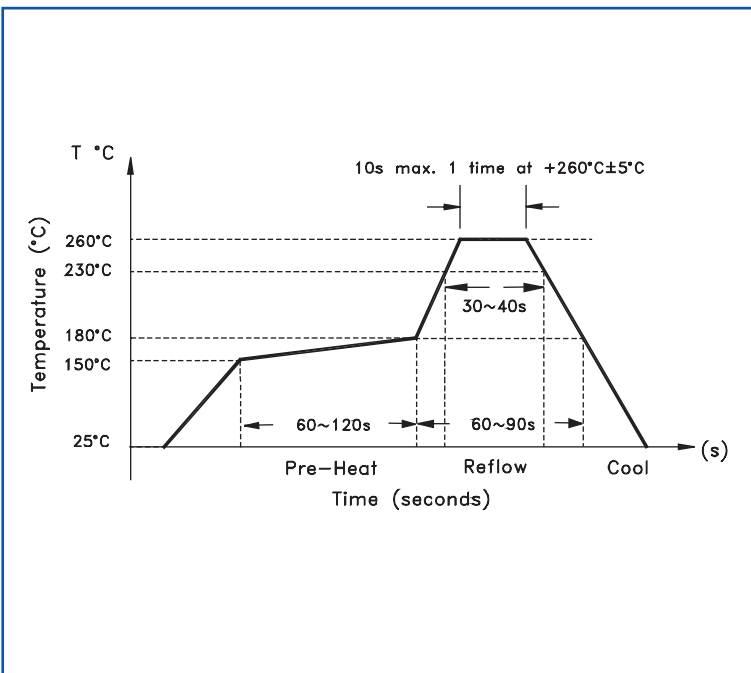
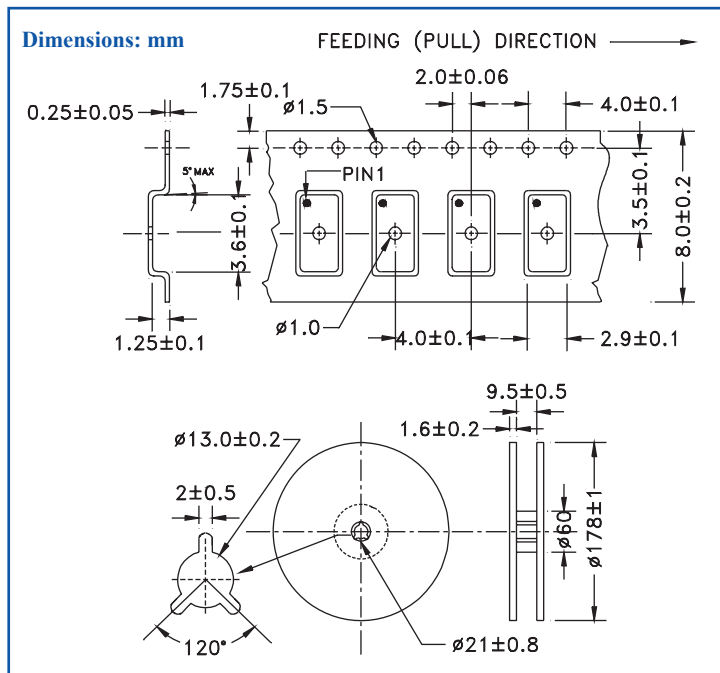
PIN	FUNCTION
1	Tri-state
2	GND/Case
3	Output
4	Vdd

Dimensions: Inches (mm)

TAPE & REEL

Tape and reel 1,000pcs/reel

REFLOW PROFILE



Need a test socket for the ASE2 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** or these parts, [click here](#).

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