2.5V CMOS Compatible SMD Crystal Oscillator



3.2 x 2.5 x 1.2m m

ASE2 SERIES

ESD Sensitive

RoHS / RoHS II Compliant

Moisture Sensitivity Level (MSL) –1

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 ±20ppm for -40 to +85°C
- Seam sealed package assures high reliability

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	0.625		156.25	MHz	
Operating Temperature	-10		+70	°C	STD (See options)
Storage Temperature	-55		+125	°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		20.00 ~ 31.99 MHz
		5	15		32.00 ~ 59.99 MHz
		12	25		60.00 ~ 125.00 MHz
		15	25		125.01 ~ 156.25MHz
Symmetry @ 1/2Vdd	45		55	%	0.625 ~ 89.999 MHz
	40		60		90.00 ~ 156.25 MHz
Rise and Fall Time (Tr/Tf)		3	5	ns	0.625 ~ 19.99 MHz
		3	5		20.00 ~ 31.99 MHz
		3	5		32.00 ~ 59.99 MHz
		3	5		60.00 ~ 125.00 MHz
		3	5		125.01 ~ 156.25MHz
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		20.00 ~ 31.99 MHz
		0.6	3		32.00 ~ 59.99 MHz
		1.3	2		60.00 ~ 125.00 MHz
		1.3	2		125.01 ~ 156.25MHz
Tri-state function	"1" (VIH≥0.7*Vdd) or Open: Oscillation; "0" (VIL<0.3*Vdd) : Hi Z				
RMS Jitter:		2	5	ps	
Aging at 25°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
156.25MHz

Operating Temp.
I: 0°C ~ +50°C
D: -10°C ~ +60°C
E: -20°C ~ +70°C
F: -30°C ~ +70°C
N: -30°C ~ +85°C
L: -40°C ~ +85°C

Contact ABRACON for wider temperature range.

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

*: Temp options I, D, E, and -10°C to + 70°C only

Packaging
Blank: Bulk
T: 1000pcs/Reel

30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

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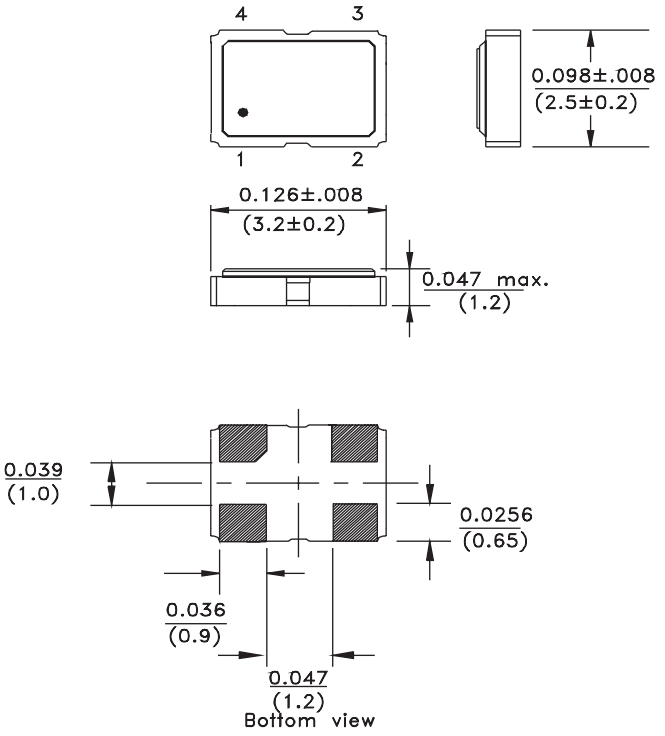
ASE2 SERIES

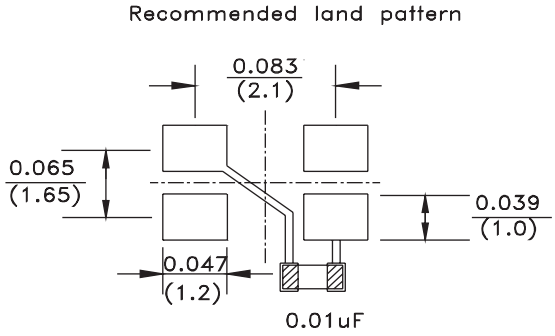
RoHS / RoHS II Compliant



3.2 x 2.5 x 1.2mm

OUTLINE DRAWING:



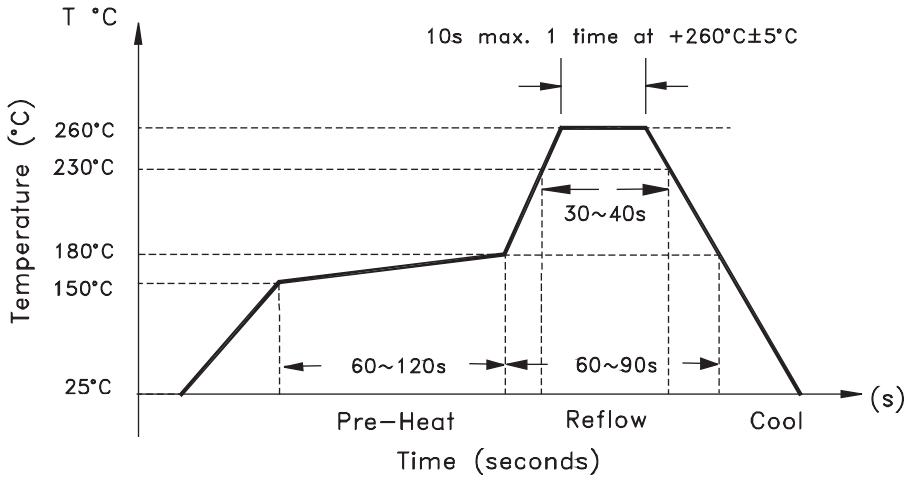


Note:
1. The outline package configuration varies with frequency range. Electrical properties, pin configuration, and land pattern are the same.
2. Recommend using an approximately 0.01µF bypass capacitor between Pin 2 and 4.

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

Dimensions: Inches (mm)

REFLOW PROFILE



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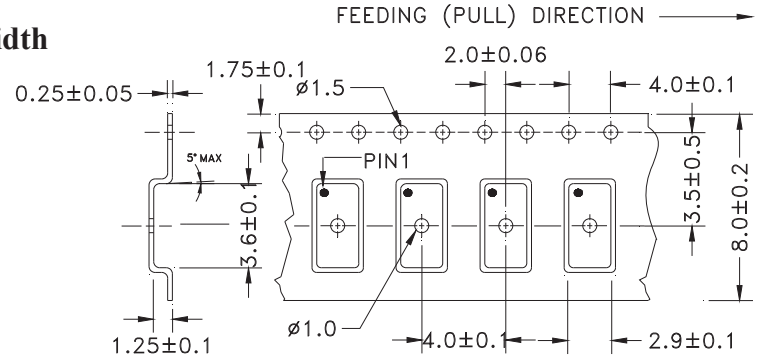


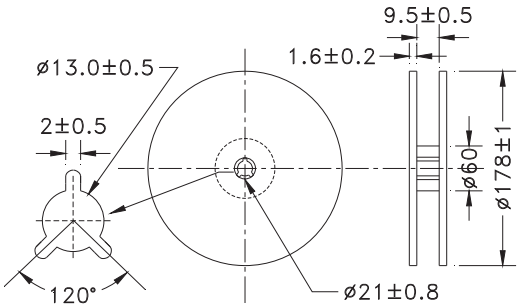
3.2 x 2.5 x 1.2mm

TAPE & REEL:

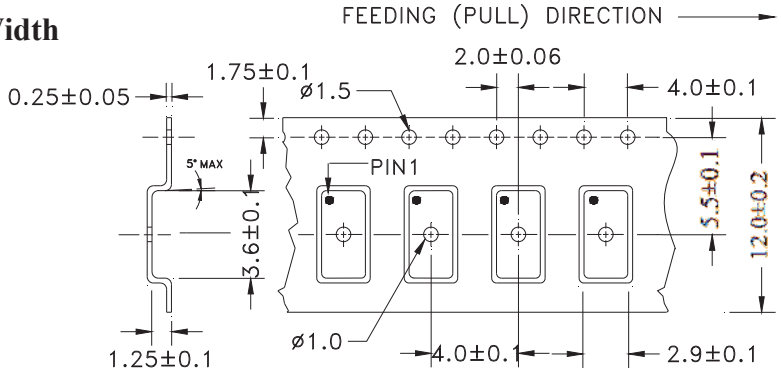
T: 1000pcs/reel

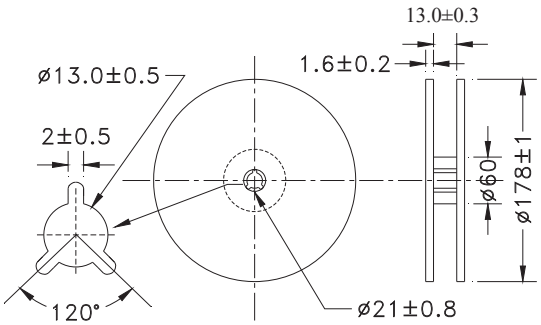
8mm Tape Width





12mm Tape Width





Dimensions: mm



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

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