

# 1.8V CMOS Compatible SMD Crystal Oscillator



3.2 x 2.5 x 1.20 mm

**ASE3 SERIES**



RoHS/RoHS II compliant

Moisture Sensitivity Level (MSL) -1

## FEATURES:

- Compact and low in height
- Tri state
- Low supply voltage
- Suitable for high density SMT
- IR reflow capable
- Tight stability option available
- Seam sealed package

## APPLICATIONS:

- CCD clock for VTR camera
- Equipment connected to PC or PC cards
- Laptop
- Mobile communication
- Bluetooth
- Wireless LAN
- Flat TV

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes	
Frequency Range	0.625		133.333	MHz		
Operating Temperature:	-10		+70	°C	See options	
Storage Temperature:	-55		+125	°C		
Overall Frequency Stability:	-100		+100	ppm	See options	
Supply Voltage (Vdd):	+1.71	+1.80	+1.89	V		
Supply Current (Idd):		1	4	mA	0.625~9.999MHz	
			2	4	mA	10.000~29.999MHz
			3	6	mA	30.000~59.999MHz
			5	10	mA	60.000~74.999MHz
			7	15	mA	75.000~99.999MHz
			12	20	mA	100.000~133.333MHz
Start-up time:		3	5	ms	0.625~9.999MHz	
		3	5	ms	10.000~29.999MHz	
		3	5	ms	30.000~59.999MHz	
		4	10	ms	60.000~74.999MHz	
		4	10	ms	75.000~99.999MHz	
Tr/Tf:		4	10	ms	100.000~133.333MHz	
		5	10	ns	0.625~9.999MHz	
		3	6	ns	10.000~29.999MHz	
		3	6	ns	30.000~59.999MHz	
		2	5	ns	60.000~74.999MHz	
Symmetry @ 1/2Vdd:	45		55	%	0.625 ~ 89.999 MHz	
	40		60		90 ~ 133.333MHz	
		"1" (VIH ≥ 0.7*Vdd) or open: Oscillation				
	"0" (VIL < 0.3*Vdd) : Hi Z					
Output Load:			15	pF		
Output Level	0.9 * Vdd			Vp-p	V <sub>OH</sub>	
			0.1 * Vdd	Vp-p	V <sub>OL</sub>	
Stand-by Current:			10	uA		
Period Jitter (RMS):		3	5	ps		
Aging (first year):	-3		+3	ppm	@+25°C	



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## OPTIONS & PART IDENTIFICATION: (Left blank if standard)

ASE3 -  MHz -  -  -

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

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

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

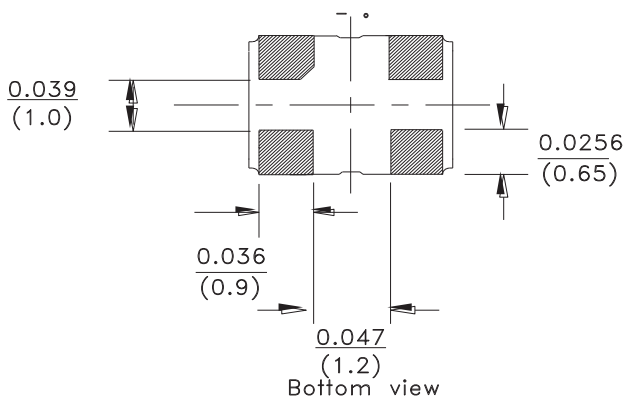
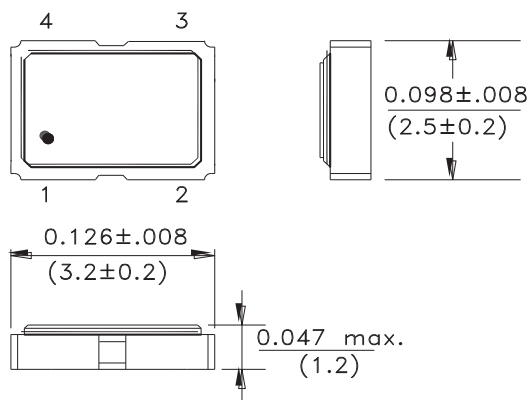
Packaging
Blank: Bulk
T: Tape & Reel (1kpcs)
T2: Tape & Reel (250pcs)

Contact ABRACON for wider temperature range.

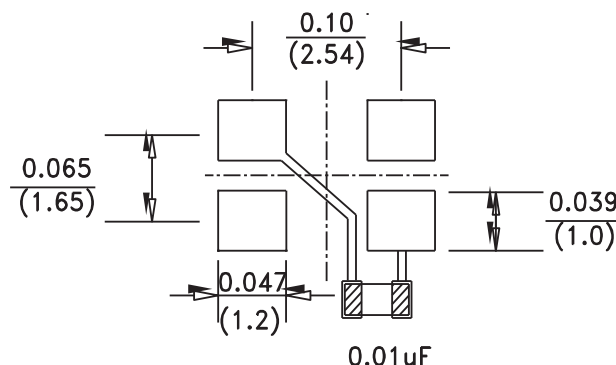
\*: Temp options I, D, E, and -10° C to +70° C only

## OPTIONS & PART IDENTIFICATION: (Left blank if standard)

(Left blank if standard)



### Recommended land pattern



Note: Recommend using an approximately 0.01uF bypass capacitor between Pin 7 and 14.

PIN	FUNCTION
1	Tristate
2	GND/Case
3	Output
4	Vdd

Dimensions: inches (mm)

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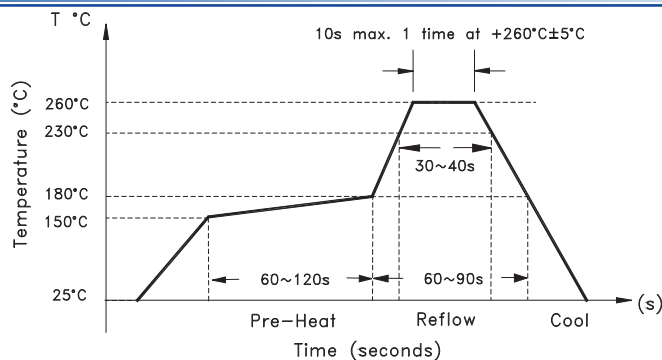


3.2 x 2.5 x 1.20 mm

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## REFLOW PROFILE:

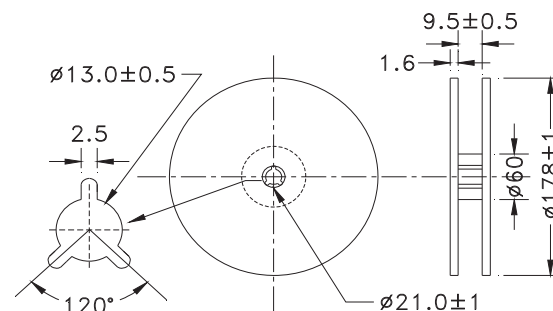
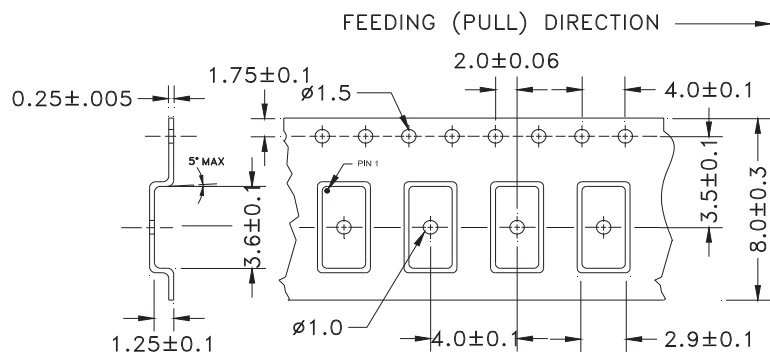


## TAPE & REEL:

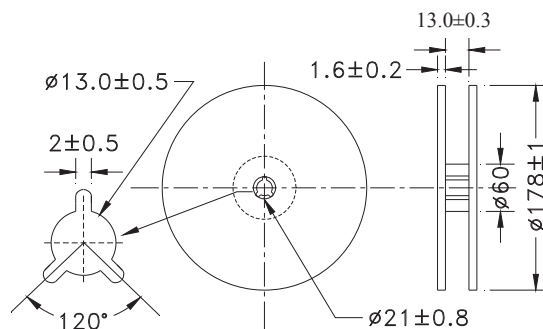
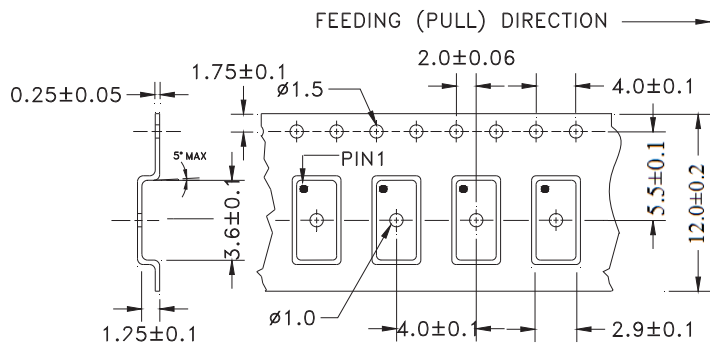
**T: Tape and reel (1,000pcs/reel)**

**T2: Tape and reel (250pcs/reel)**

### 8mm Tape Width



### 12mm Tape Width



**Dimensions: mm**



Need a test socket for the ASE3 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#).

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