

1.35Vdc CMOS OUTPUT 3.2 x 2.5 SMD CRYSTAL CLOCK OSCILLATOR



3.2 x 2.5 x 1.2 mm

ASE5 SERIES

Moisture Sensitivity Level (MSL) -1



RoHS/RoHS II Compliant

FEATURES:

- Compact and low profile
- Low current consumption
- Tri-state function
- 1.35Vdc supply voltage ideal for low power ASIC's
- Ideal for high density SMT
- IR reflow capable
- Tight stability option

APPLICATIONS:

- CCD clock for VTR camera
- Computer peripherals
- Digital camera, MP3 player
- Mobile communications
- PDA

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	1.0		50	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)	+1.2825	1.35	+1.4175	V	
Supply Current (Idd)		1.2	1.5	mA	1.0 ~ 20 MHz
		1.8	2.5		20.1 ~ 40.0 MHz
		2.3	3.0		40.01 ~ 50.0 MHz
Symmetry @ 1/2Vdd	45	50	55	%	
Rise and Fall Time (Tr/Tf)		1.3	3.0	ns	1.0 ~ 20 MHz
		1.3	3.0		20.1 ~ 40.0 MHz
		1.3	3.0		40.01 ~ 50.0 MHz
Output Load			15	pF	CMOS
Output Voltage (VOH)	0.9* Vdd			V	
Output Voltage (VOL)			0.1* Vdd	V	
Start-up Time		1.0	2.0	ms	0.5 ~ 20 MHz
		1.0	2.0		20.1 ~ 40.0 MHz
		1.0	2.0		40.01 ~ 50.0 MHz
Tri-state function (Stand-by)	"1" (VIH≥0.7*Vdd) or Open: Oscillation; "0" (VIL<0.3*Vdd) : No oscillation/Hi Z				
RMS Jitter:		3.3	5	ps	0.5 ~ 20 MHz
		3.3	5		20.1 ~ 40.0 MHz
		3.3	5		40.01 ~ 50.0 MHz
Aging at 25°C (first year)	-3		+3	ppm	
Stand-by Current:			10	µA	

1.35Vdc CMOS OUTPUT 3.2 x 2.5 SMD CRYSTAL CLOCK OSCILLATOR



ASE5

3.2 x 2.5 x 1.2 mm

ASE5 SERIES

Pb | RoHS/RoHS II Compliant

OPTIONS & PART IDENTIFICATION: (Left blank if standard)

ASE5- MHz - - -

Frequency in MHz
e.g. 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

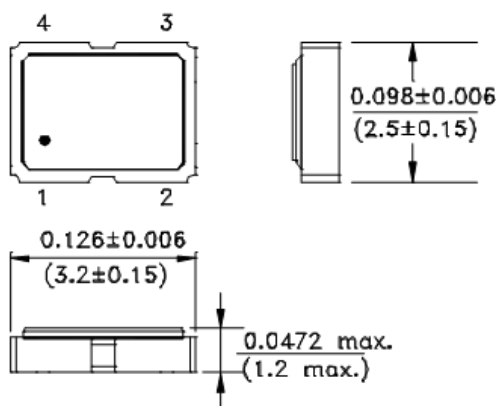
Contact ABRACON for wider temperature range.

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

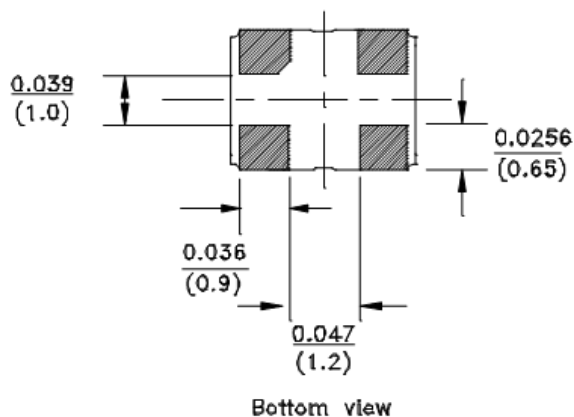
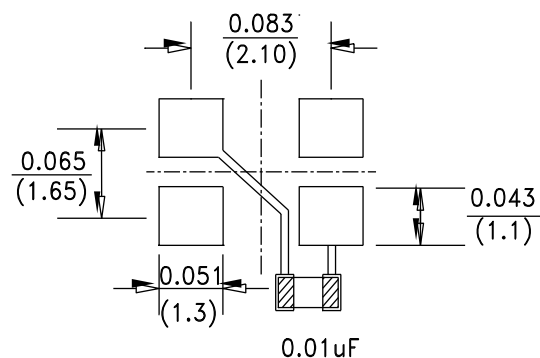
*: Temp options I, D, E, and -10°C to +70°C only

Packaging
T: 1000pcs/Reel

OUTLINE DIMENSION:



Recommended land pattern



Bottom view

Pin	Function
1	Tri-State (STBY)
2	GND/Case
3	Output
4	Vdd

Note1: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Note2: The outline package configuration varies with frequency range. Electrical properties, pin configuration, and land pattern are the same.

Dimensions: inches (mm)

ABRACON IS
ISO 9001:2008
CERTIFIED



Visit www.abracon.com for Terms & Conditions of Sale
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 03.05.13

1.35Vdc CMOS OUTPUT 3.2 x 2.5 SMD CRYSTAL CLOCK OSCILLATOR



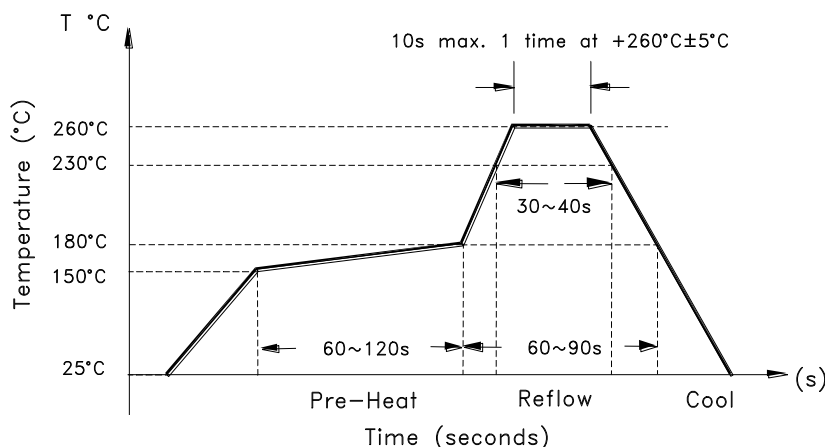
ASE5

3.2 x 2.5 x 1.2 mm

ASE5 SERIES

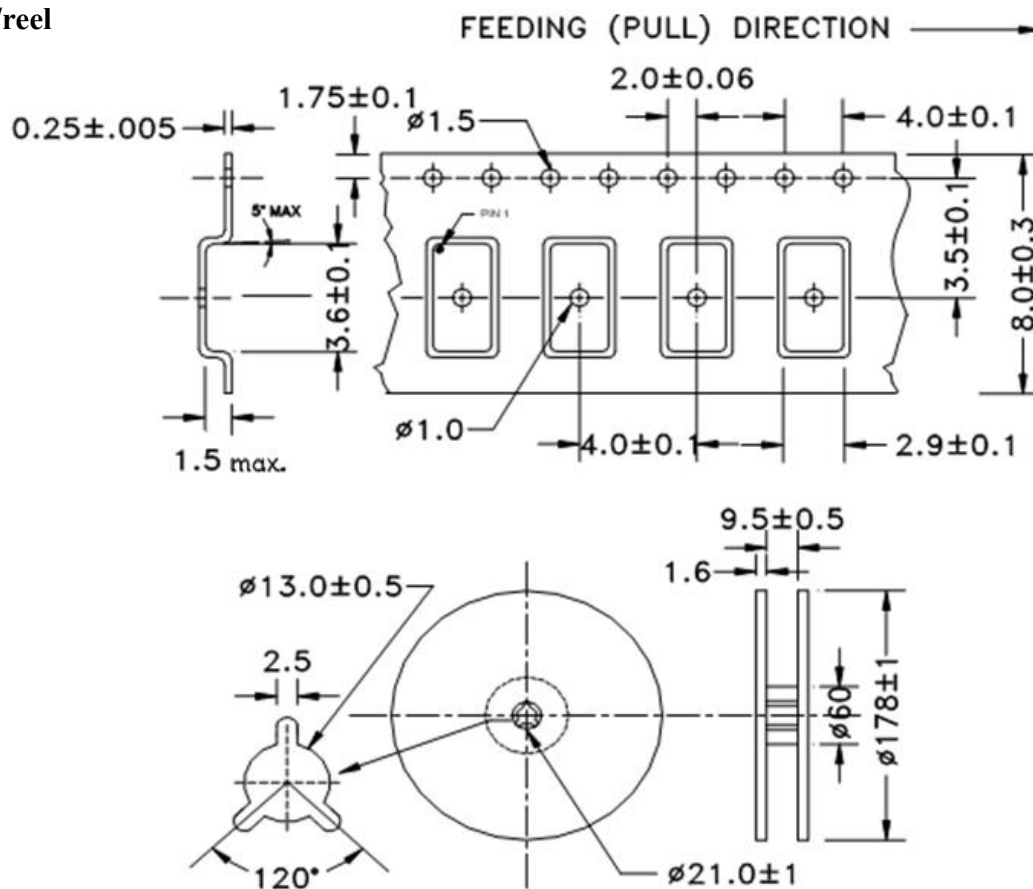
Pb RoHS/RoHS II Compliant

REFLOW PROFILE:



TAPE & REEL:

T: 1000pcs/reel



Dimensions: mm

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO 9001:2008
CERTIFIED



**ABRACON
CORPORATION**

Visit www.abracon.com for Terms & Conditions of Sale
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 03.05.13