

3.3Vdc HCMOS SMD Crystal Clock Oscillator



7.0 x 5.08 x 1.6 mm

ASV1 SERIES



ESD Sensitive



RoHS/RoHS II compliant

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

FEATURES:

- Leadless Chip Carrier (LCC)
- HCMOS Compatible, 3.3Vdc, 2.5Vdc, & 1.8Vdc options
- Reflow capable, Seam Sealed Package

APPLICATIONS:

- Clock signaling for μ Processors, PC Motherboards and Graphic Cards
- High output drive capability (up to 50pf)

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		0.5		200	MHz	
Operating Temperature		-10		+70	°C	See options
Storage Temperature		-55		+125	°C	
Overall Frequency Stability		-100		+100	ppm	See options
Supply Voltage (Vdd)		+2.97	3.3	+3.63	V	See options
Supply Current (Idd) ^(*)				15.0	mA	0.5 ~ 30.0 MHz
				35.0		30.01 ~ 70.0 MHz
				45.0		70.01 ~ 125.0 MHz
				65.0		125.01 ~ 165.0 MHz
Symmetry @ 1/2Vdd		40	50	60	%	See options
Rise and Fall Time (Tr/Tf) ^(*)				10	ns	0.5 ~ 30.0 MHz
				7		30.01 ~ 70.0 MHz
				7		70.01 ~ 125.0 MHz
				5		125.01 ~ 165.0 MHz
Output Load				15	pF	See options
Output Voltage	V _{OH}	0.9 x Vdd			V	
	V _{OL}			0.4	V	
Start-up Time				10	ms	
Tri-state function		"1" (VIH $\geq$ 0.7*Vdd) or Open: Oscillation "0" (VIL $<$ 0.3*Vdd) : Hi Z				
Aging at 25°C (first year)		-5		+5	ppm	
Disable Current				10	uA	
Enable Time				400	ms	
Disable Time				100	ns	

(*) Contact Abracon for higher frequencies



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PART IDENTIFICATION (LEFT BLANK IF STANDARD)

P/N and Vdd (V)

Blank: 3.3 ± 10%
ASV11: 2.5 ± 10%
ASV12: 1.8 ± 10%

Frequency in MHz

e.g. 14.31818MHz
26.000MHz
200.000MHz

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

Overall Freq. Stability

J: ±20ppm
R: ±25ppm
K: ±30ppm
H: ±35ppm
C: ±50ppm

Packaging

Blank: Bulk
T: 1000pcs/Reel

Output Load *

Blank: 15pF
50: 50pF

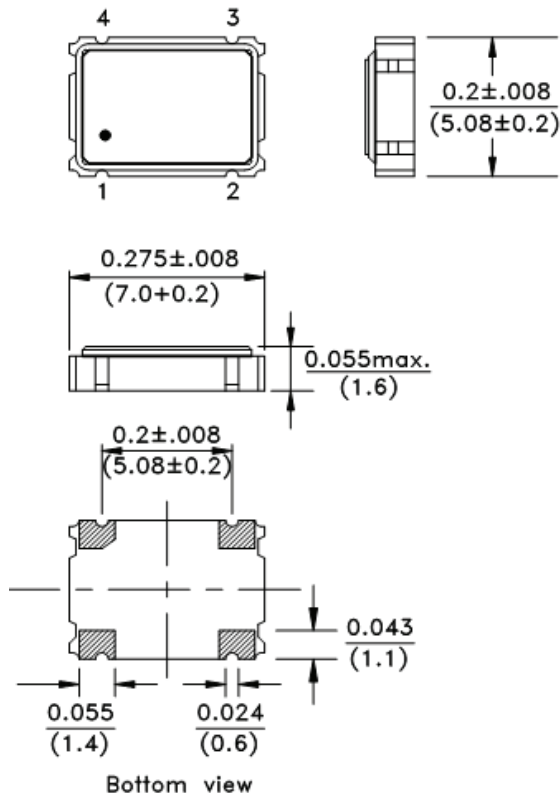
Symmetry

Blank: 40/60% @ 1/2 Vdd
S: 45/55% @ 1/2 Vdd

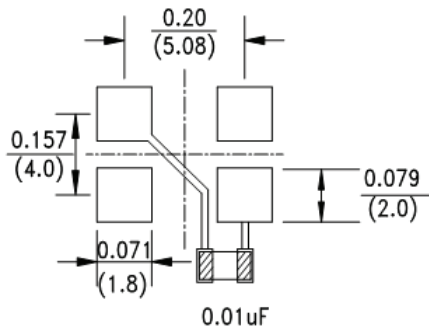
Note *: See Table below for the Output Load option availability

Output Load	Supply Voltage		
	Vdd=3.3V	Vdd=2.5V	Vdd=1.8V
15pF max	√	√	√
50pF max	√	Available for Freq. ≤ 70MHz	Not Available

OUTLINE DRAWING:



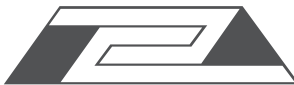
Recommended land pattern



Pin	Function
1	Tri-State Enable/Disable
2	GND/Case
3	Output
4	Vdd

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

Dimension: Inches (mm)



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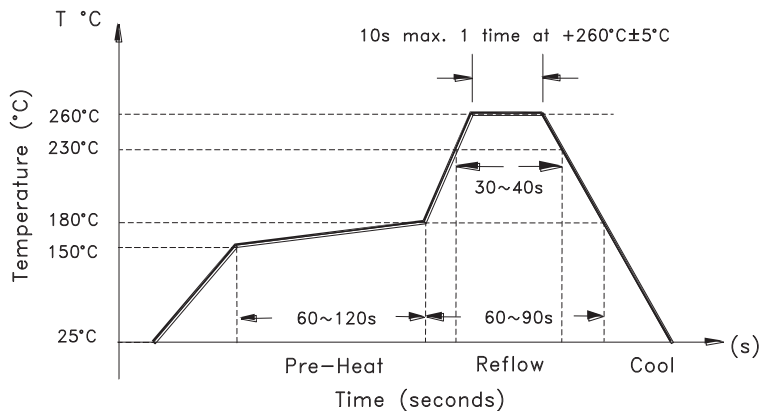


ESD Sensitive



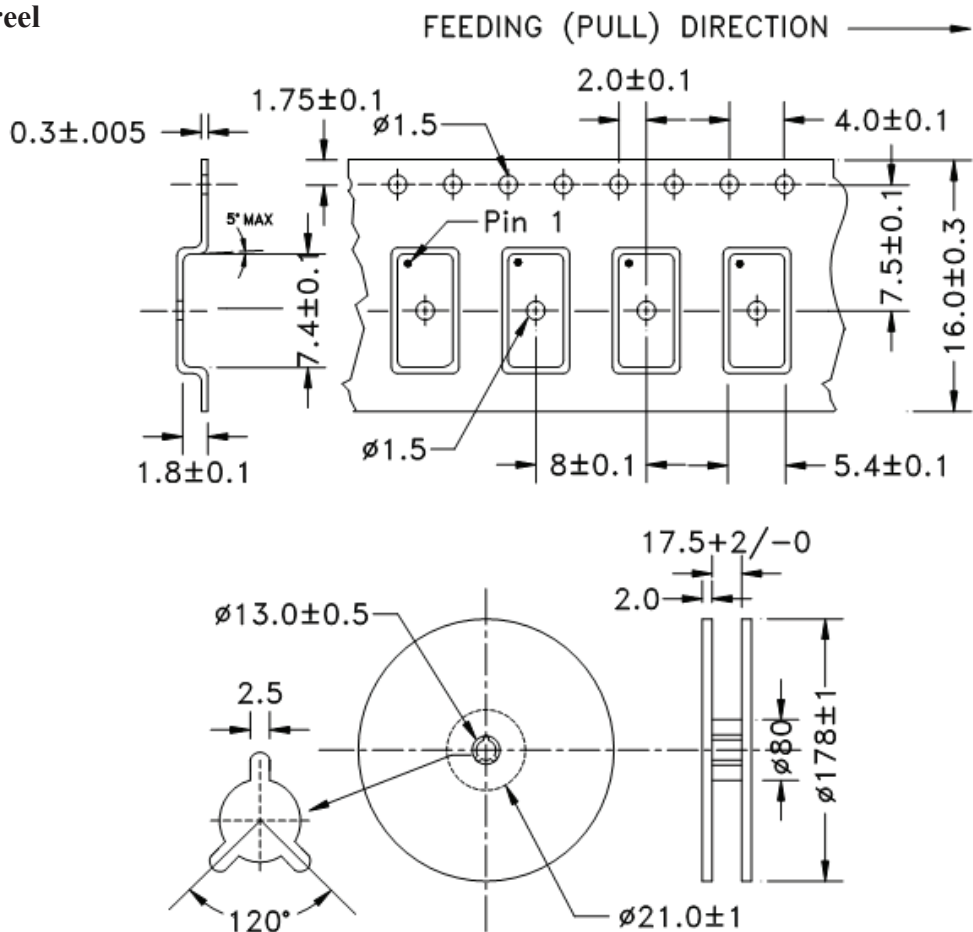
RoHS/RoHS II compliant

REFLOW PROFILE



TAPE & REEL:

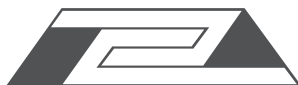
T: 1000pcs/reel



Dimension:mm

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