

HCMOS SMD Crystal Oscillator

ASD SERIES



RoHS
Compliant



2.5 x 2.0 x 1.0mm

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

FEATURES:

- Low height 1.0mm max
- Low current consumption
- Tri-state function
- Suitable for RoHS compliant reflow
- Tight stability option
- Seam sealed package assures high reliability

APPLICATIONS:

- CCD clock for VTR Camera
- Equipment connected to PC or PC cards
- Thin equipment

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes	
Frequency Range	0.750	----	60	MHz		
Operating Temperature	-20	----	+70	°C	STD temp. Option code E (See options)	
Storage Temperature	-55	----	+100	°C		
Overall Frequency Stability	-100	----	+100	ppm	See options	
Supply Voltage (Vdd)	+3.135	+3.3	+3.465	V	ASD (Standard)	
	+2.85	+3.0	+3.15		ASD1	
	+2.375	+2.5	+2.625		ASD2	
	+1.71	+1.8	+1.89		ASD3	
	+0.95	+1.0	+1.05		ASD6	
Input Current (Idd)	ASD (3.3V)	----	2.5	5	mA	0.750~15.999 MHz
		----	4	7		16.000~39.999 MHz
		----	9	13		40.000~60.000 MHz
	ASD1 (3.0V)	----	2.5	4	mA	0.750~15.999 MHz
		----	3.5	6		16.000~39.999 MHz
		----	8	12		40.000~60.000 MHz
	ASD2 (2.5V)	----	2	3.5	mA	0.750~15.999 MHz
		----	3	5		16.000~39.999 MHz
		----	7	10		40.000~60.000 MHz
	ASD3 (1.8V)	----	1	2.5	mA	0.750~15.999 MHz
		----	2	4		16.000~39.999 MHz
		----	4	7		40.000~60.000 MHz
	ASD6 (1.0V)	----	1.0	2.5	mA	25.000 MHz
	Symmetry @ 1/2Vdd	40	----	60	%	STD (See option)
	Output Load:	----	----	15	pF	CMOS
Output Voltage (VOH):	0.9* Vdd	----	----	V		
Output Voltage (VOL):	----	----	0.1* Vdd	V		

HCMOS SMD Crystal Oscillator



ASD

2.5 x 2.0 x 1.0mm

ASD SERIES



RoHS
Compliant

STANDARD SPECIFICATIONS... continued:

Parameters		Minimum	Typical	Maximum	Units	Notes	
Rise and Fall Time (Tr/Tf):	ASD (3.3V)	-----	3	7	ns	0.750~15.999 MHz	
		-----	2.5	6		16.000~39.999 MHz	
		-----	2	4		40.000~66.666 MHz	
	ASD1 (3.0V)	-----	3	7	ns	0.750~15.999 MHz	
		-----	2.5	6		16.000~39.999 MHz	
		-----	2	4		40.000~66.666 MHz	
	ASD2 (2.5V)	-----	4	8	ns	0.750~15.999 MHz	
		-----	3	7		16.000~39.999 MHz	
		-----	2.5	5		40.000~66.666 MHz	
	ASD3 (1.8V)	-----	5	10	ns	0.750~15.999 MHz	
		-----	3.5	8		16.000~39.999 MHz	
		-----	3	6		40.000~66.666 MHz	
	ASD6 (1.0V)	-----	1.9	6.0	ns	25.000 MHz	
	Start-up Time:	ASD (3.3V)	-----	6	10	ms	0.750~15.999 MHz
			-----	6	10		16.000~39.999 MHz
-----			5	10	40.000~66.666 MHz		
ASD1 (3.0V)		-----	6	10	ms	0.750~15.999 MHz	
		-----	6	10		16.000~39.999 MHz	
		-----	5	10		40.000~66.666 MHz	
ASD2 (2.5V)		-----	6	10	ms	0.750~15.999 MHz	
		-----	6	10		16.000~39.999 MHz	
		-----	5	10		40.000~66.666 MHz	
ASD3 (1.8V)		-----	6	10	ms	0.750~15.999 MHz	
		-----	6	10		16.000~39.999 MHz	
		-----	5	10		40.000~66.666 MHz	
ASD6 (1.0V)		-----	2.0	10	ms	25.000 MHz	
Tri-state function (Stand-by) :		"1" (VIH≥0.7*Vdd) or Open: Oscillation; "0" (VIH<0.3*Vdd) : No oscillation/Hi Z					
Phase Jitter (12kHz to 20MHz)		ASD (3.3V)	-----	0.4	1.0	ps	0.750~15.999 MHz
	-----		0.4	1.0	16.000~39.999 MHz		
	-----		0.3	1.0	40.000~66.666 MHz		
	ASD1 (3.0V)	-----	0.4	1.0	ps	0.750~15.999 MHz	
		-----	0.4	1.0		16.000~39.999 MHz	
		-----	0.3	1.0		40.000~66.666 MHz	
	ASD2 (2.5V)	-----	0.5	1.0	ps	0.750~15.999 MHz	
		-----	0.5	1.0		16.000~39.999 MHz	
		-----	0.5	1.0		40.000~66.666 MHz	
	ASD3 (1.8V)	-----	0.5	1.0	ps	0.750~15.999 MHz	
		-----	0.5	1.0		16.000~39.999 MHz	
		-----	0.5	1.0		40.000~66.666 MHz	
	ASD6 (1.0V)	-----	0.3	1.0	ps	25.000 MHz	
	Period Jitter RMS	ASD (3.3V)	-----	3.0	5.0	ps	0.750~15.999 MHz
			-----	3.0	5.0		16.000~39.999 MHz
-----			3.0	5.0	40.000~66.666 MHz		
ASD1 (3.0V)		-----	3.0	5.0	ps	0.750~15.999 MHz	
		-----	3.0	5.0		16.000~39.999 MHz	
		-----	3.0	5.0		40.000~66.666 MHz	
ASD2 (2.5V)		-----	3.0	5.0	ps	0.750~15.999 MHz	
		-----	3.0	5.0		16.000~39.999 MHz	
		-----	3.0	5.0		40.000~66.666 MHz	
ASD3 (1.8V)		-----	3.0	5.0	ps	0.750~15.999 MHz	
		-----	3.0	5.0		16.000~39.999 MHz	
		-----	3.0	5.0		40.000~66.666 MHz	
ASD6 (1.0V)		-----	4.8	6.0	ps	25.000 MHz	
Aging at 25°C/year		-5	-----	+5	ppm		
Disable Current:		-----	-----	10	µA		

ABRACON IS
ISO9001:2008
CERTIFIED



Visit www.abracon.com for Terms & Conditions of Sale **Revised: 10.18.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

HCMOS SMD Crystal Oscillator



2.5 x 2.0 x 1.0mm

ASD SERIES



OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASD - MHz - - - -

P/N and Vdd (V)	
Blank:	3.3±5%
1:	3.0±5%
2:	2.5±5%
3:	1.8±5%
6:	1.0±5%

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

Operating Temp.	
E:	-20°C ~ +70°C (STD)
F:	-30°C ~ +70°C
N:	-30°C ~ +85°C
L:	-40°C ~ +85°C
M(***)	-40°C ~ +105°C
V(***)	-40°C ~ +125°C

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

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

Packaging	
Blank:	Bulk
T:	1000pcs/Reel
T2:	250pcs/Reel
T3:	3000pcs/Reel

*: Standard only
 **: E, F, N, and L only
 ***: ± 100 ppm only

OUTLINE DRAWING:

Bottom view

Recommended land pattern

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.

Dimensions: inches (mm)

ABRACON IS
ISO9001:2008
CERTIFIED



Visit www.abracon.com for Terms & Conditions of Sale **Revised: 10.18.12**
 30332 Esperanza, Rancho Santa Margarita, California 92688
 tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

HCMOS SMD Crystal Oscillator



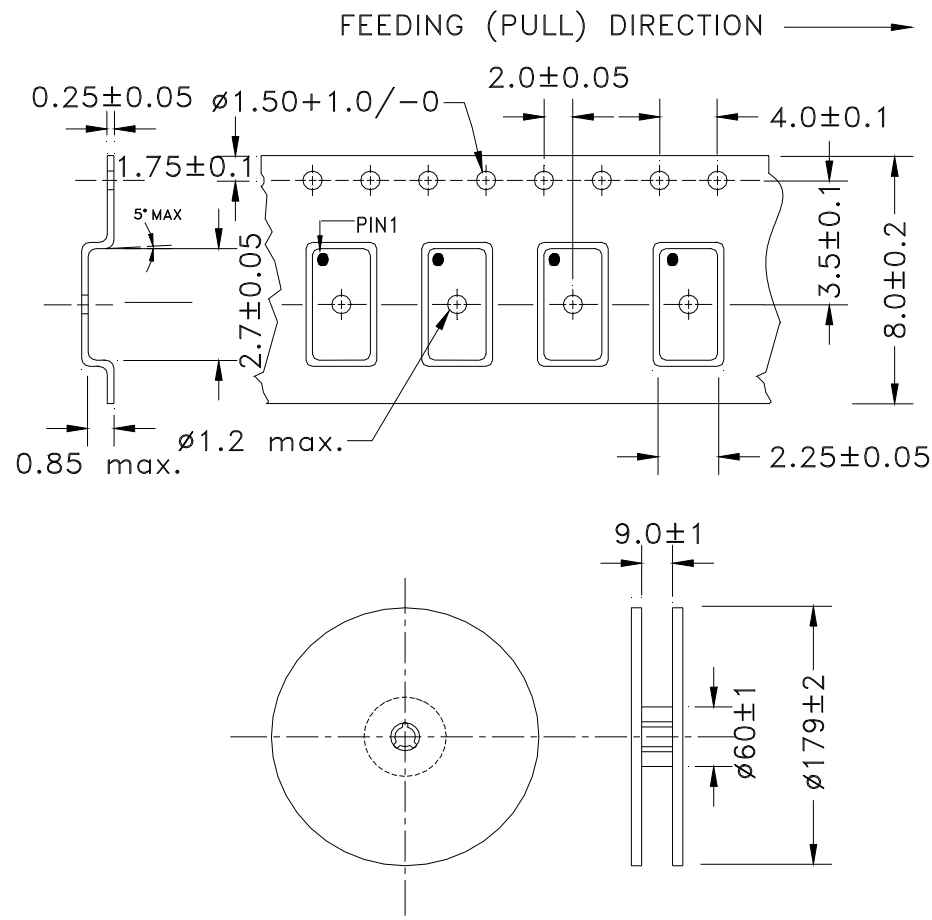
2.5 x 2.0 x 1.0mm

ASD SERIES



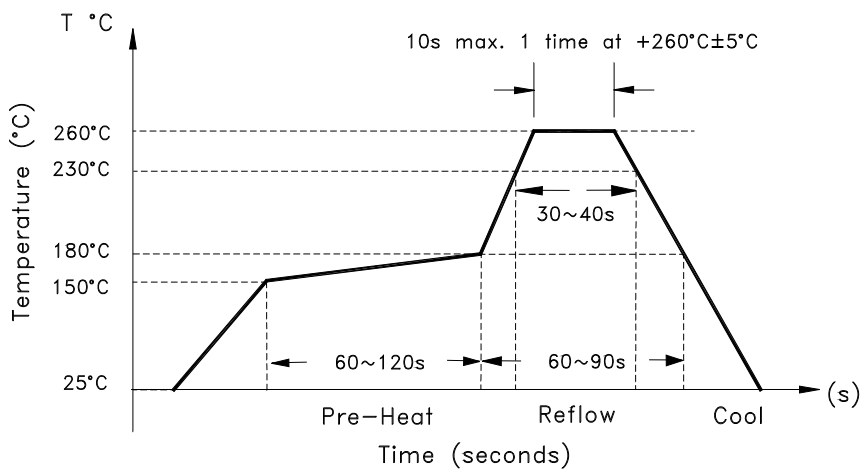
TAPE & REEL:

- T: 1000pcs/reel
- T2: 250pcs/reel
- T3: 3000pcs/reel



Dimensions: mm

REFLOW PROFILE:



Need a test socket for the ASD Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here. P/N AXS-2520-04-01](#)

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
ISO9001:2008
CERTIFIED



Visit www.abracon.com for Terms & Conditions of Sale **Revised: 10.18.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [ABRACON](#) manufacturer:

Other Similar products are found below :

[EP1400SJTSC-125.000M](#) [601137](#) [601252](#) [CSX750FBC-24.000M-UT](#) [CSX750FBC-33.333M-UT](#) [CSX750FCC-3.6864M-UT](#) [F335-12](#) [F335-25](#) [F535L-50](#) [DSC506-03FM2](#) [ASA-20.000MHZ-L-T](#) [ASA-25.000MHZ-L-T](#) [ASA-27.000MHZ-L-T](#) [ASV-20.000MHZ-LR-T](#) [ECS-2018-160-BN-TR](#) [EL13C7-H2F-125.00M](#) [MXO45HS-2C-66.6666MHZ](#) [NBXDBB017LN1TAG](#) [NBXHBA019LN1TAG](#) [SiT1602BI-22-33E-50.000000E](#) [SIT8003AC-11-33S-2.04800X](#) [SiT8256AC-23-33E-156.250000X](#) [SIT8918AA-11-33S-50.000000G](#) [SM4420TEV-40.0M-T1K](#) [SMA4306-TL-H](#) [F335-24](#) [F335-40](#) [F335-50](#) [F535L-10](#) [F535L-12](#) [F535L-16](#) [F535L-24](#) [F535L-27](#) [F535L-48](#) [PE7744DW-100.0M](#) [CSX750FBC-20.000M-UT](#) [CSX-750FBC33333000T](#) [CSX750FBC-4.000M-UT](#) [CSX750FBC-7.3728M-UT](#) [CSX750FBC-8.000M-UT](#) [CSX-750FCC14745600T](#) [CSX750FCC-16.000M-UT](#) [CSX-750FCC40000000T](#) [CSX750FCC-4.000M-UT](#) [ASA-22.000MHZ-L-T](#) [ASA2-26.000MHZ-L-T](#) [ASA-40.000MHZ-L-T](#) [ASA-48.000MHZ-L-T](#) [ASA-60.000MHZ-L-T](#) [ASF1-3.686MHZ-N-K-S](#)