## 2.5 x 2.0 x 0.95 mm 32.768kHz CERAMIC SURFACE MOUNT CRYSTAL OSCILLATOR

### ASDK Series





2.5 x 2.0 x 0.95 mm

#### > FEATURES:

- 32.768kHz in 2.5 x 2.0 x 0.95mm package
- Seam sealed assure high reliability performance
- Low current consumption 1.0mA (Vdd=1.8V)
- Suitable for RoHS compliant reflow
- Extend temperature range available

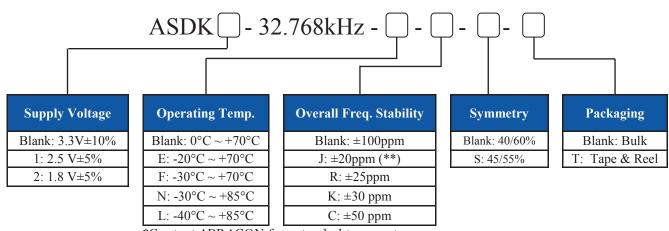
#### > APPLICATIONS:

- Laptop
- Digital camera
- Wireless LAN
- Bluetooth and mobile communication
- LCD
- PDA and MP3 player
- Electricity, gas and water metering

#### STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range			32.768		kHz	
Operating Temperature		0		+70	°C	See options
Storage Temperature		-55		+125	°C	
Overall Frequency Stability		-100		+100	ppm	See options
Supply Voltage (Vdd)		2.97	3.3	3.66	V	Standard
		2.375	2.5	2.625		Option 1
		1.71	1.8	1.89		Option 2
Supply Current (I <sub>dd</sub> )			1.0	1.5	mA	Vdd=1.8V
			1.2	2.5		Vdd=2.5V
			2.2	3.5		Vdd=3.3V
Output Load				15	pF	CMOS
Output Voltage	$V_{\mathrm{OH}}$	0.9*Vdd			V	
	$V_{ m OL}$			0.1*Vdd	] V	
Tri-state function		"1" (V <sub>IH</sub> ≥0.7*Vdd) Open: Oscillation "0" (V <sub>IL</sub> <0.3*Vdd) : Hi Z				
Aging		-3.0		+3.0	ppm	@+25°C First year
Symmetry @1/2Vdd		40	50	60	%	Standard
		45	50	55	%0	Option S
Start-up Time			≤2	5	ms	
Rise/Fall Time (Tr/Tf)			43	50	ns	
Disable Current				10	μΑ	

#### **OPTIONS AND PART IDENTIFICATION (Left blank if standard)**



\*Contact ABRACON for extended temperature rang \*\* For Temp option E, F, N and 0° C to +70° C only



5101 Hidden Creek Lane Spicewood Phone: 512-371-6159 | Fax: 512-351-8858 For terms and conditions of sale please visit: www.abracon.com REVISED: 06.13.2017

ABRACON IS ISO9001-2008 CERTIFIED

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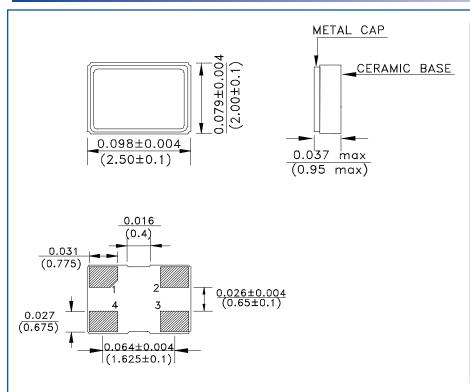
**ASDK Series** 

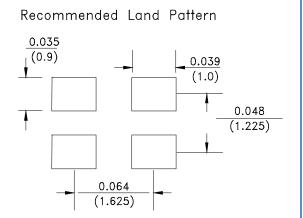




2.5 x 2.0 x 0.95 mm

#### **OUTLINE DRAWING:**



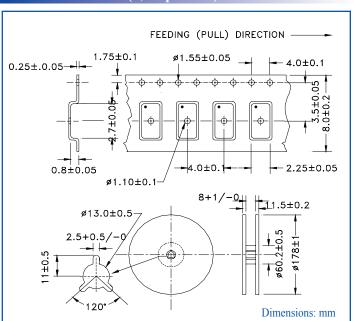


PIN	FUNCTION
1	Tri-state
2	GND
3	Output
4	Vdd

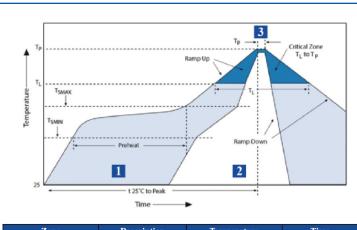
Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Dimensions: inches (mm)

#### ► TAPE & REEL:(1,000pcs/reel)



## REFLOW PROFILE



Zone	Description	Temperature	Time
1	Preheat	$ ext{T}_{ ext{SMEN}} \sim  ext{T}_{ ext{SMAX}} \\ 150^{\circ} ext{C} \sim 180^{\circ} ext{C}$	60 ∼ 120 sec.
2	Reflow	T <sub>L</sub> 230°C	30 ∼ 40 sec.
3	Peak Heat	Т <sub>р</sub> 260°С	10 sec. MAX



Need a test socket for the ASDK Series? To view compatible PRECISION TEST & BURN-IN SOCKETS for these parts, click here. AXS-2520-04-07

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