32.768kHz CMOS CERAMIC SMD CRYSTAL OSCILLATOR









3.2 x 2.5 x 0.9 mm

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

> FEATURES:

- Ultra low uA current consumption with CMOS output
- Miniature ceramic package (3.2 x 2.5 x 0.9mm)
- Operating Temp -40°C to +85°C
- Start up time less than 1 sec with supply voltage 1.5 to 5.0V
- Tri-state function
- Pb-free reflow capable

APPLICATIONS:

- General purpose clock generator for digital systems
- Clock drivers for Real Time Clocks
- Timekeeping in network servers and computers
- Electricity, gas and water metering
- Portable field communication
- Mobile phone

- Clock & Data recovery
- CCD clock for VTR camera
- Computers and peripherals
- Portable MP3 players & games

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency		32.768		kHz		
Operating Temperature		-20		+70	°C	See options
Storage Temperature		-55		+125	°C	
Frequency Tolerance @ +25°C		-15	+5	+25	ppm	
Frequency Stability		-90 3.135		+10	ppm	- 20 to + 70 °C; referenced to frequency measured @ +25°C See options
			3.3	3.465		Standard
Supply Voltage (Vdd)		4.75	5.0	5.25		Option 2
		2.66	2.8	2.94	V	Option 3
		1.71	1.8	1.89		Option 4
		1.425	1.5	1.575		Option 5
Supply Current (I _{dd})			0.9	1.5		no load, Vdd=+ 3.3V
			1.8	2.5	uA	no load, Vdd=+ 5.0V
			0.8	1.5		no load, Vdd=+ 2.8V
			0.6	1.5		no load, Vdd=+ 1.8V
			0.5	1.5		no load, Vdd=+ 1.5V
Output Load				15	pF	CMOS
Output Voltage	V_{OH}	Vdd-0.4			V	
Output voltage	$ m V_{OL}$			0.4		
Tri-state function		"1" (VIH>0.8*Vdd or open) : Oscillation "0" (VIH<0.2*Vdd) : Hi Z				
Aging		-5.0		+5.0	ppm	@+25°C First year
Symmetry @1/2Vdd		40	50	60	%	Standard
Start-up Time				1	S	0.9*Vdd @ +25°C
Rise/Fall Time (Tr/Tf)				200	ns	





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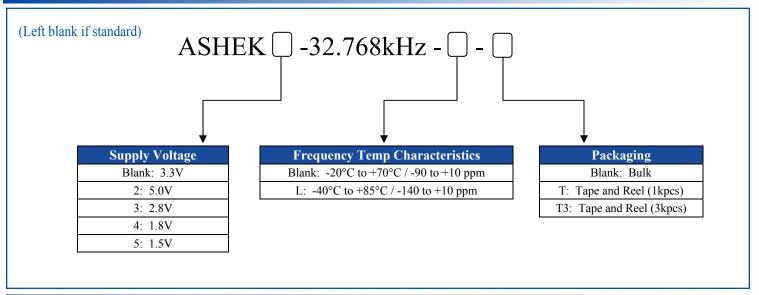




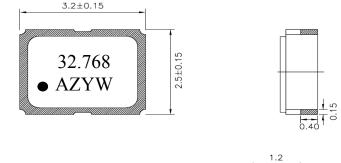


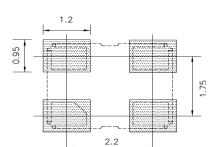
3.2 x 2.5 x 0.9 mm

OPTIONS & PART IDENTIFICATION:



OUTLINE DIMENSION:





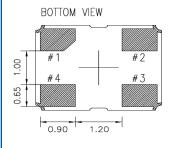
	1.2		
	-		
0.95	F		_
			1.75
_			•
	_	2.2	

LAND PATTERN (REFFENCE)

PIN#	Name		
1	Tri-state or NC		
2	GND		
3	Output		
4	Vdd		

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

Dimensions: mm

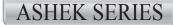


ABRACON IS

ISO9001:2008 CERTIFIED



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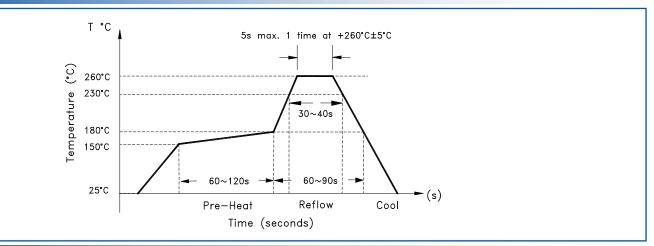






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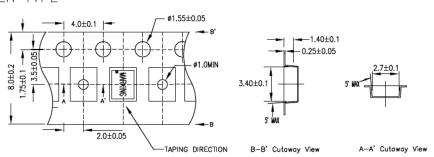
REFLOW PROFILE:

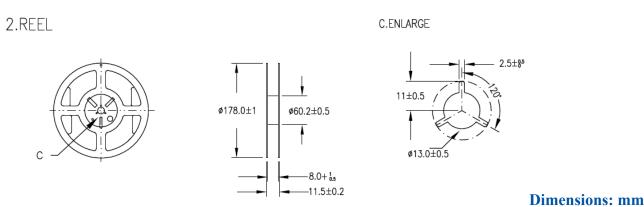


TAPE & REEL:

T= Tape and reel (1,000pcs/reel) T3= Tape and reel (3,000pcs/reel)

1.CARRIER TYPE





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