

## ► 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 Range	-----	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	-----	+10	ppm	- 20 to + 70 °C; referenced to frequency measured @ +25°C See options
Supply Voltage (Vdd)	3.135	3.3	3.465	V	Standard
	4.75	5.0	5.25		Option 2
	2.66	2.8	2.94		Option 3
	1.71	1.8	1.89		Option 4
	1.425	1.5	1.575		Option 5
Supply Current (I <sub>dd</sub> )	-----	0.9	1.5	uA	no load, Vdd=+ 3.3V
	-----	1.8	2.5		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 <sub>OH</sub>	Vdd-0.4	-----	V	
	V <sub>OL</sub>	-----	0.4		
Tri-state function	"1" (VIH≥0.9*Vdd or open) : Oscillation "0" (VIH<0.8V) : 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	

## ► STANDARD SPECIFICATIONS:

ASHEK □ -32.768kHz - □ - □

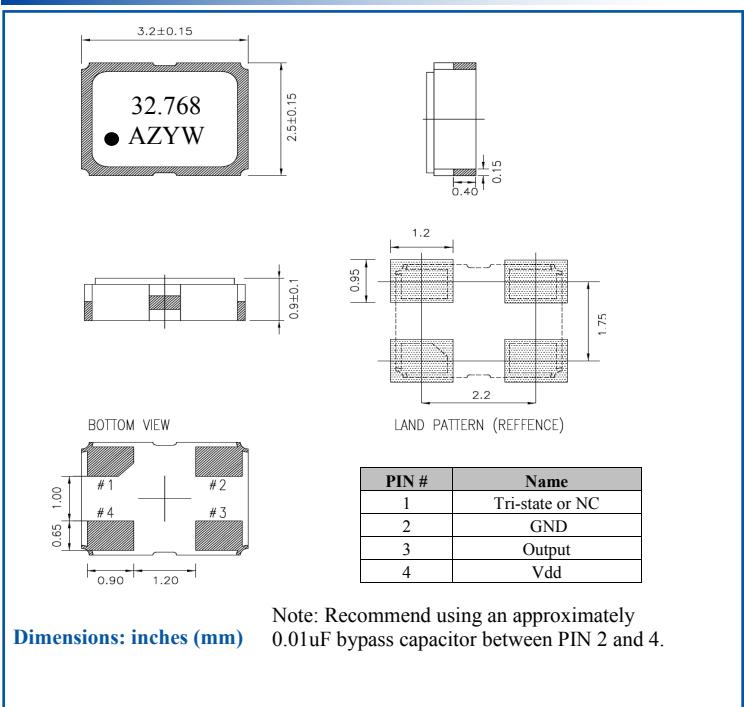
Supply Voltage
Blank: 3.3V
2: 5.0V
3: 2.8V
4: 1.8V
5: 1.5V

Frequency Temp Characteristics
Blank: -20°C to +70°C / -90 to +10 ppm
L: -40°C to +85°C / -140 to +10 ppm

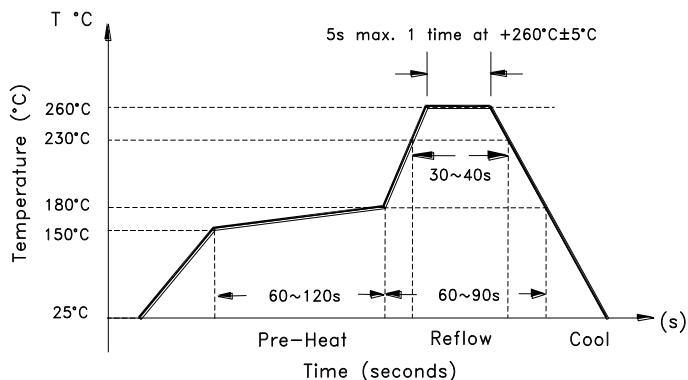
Packaging
Blank: Bulk
T: Tape and Reel (1kpcs)
T3: Tape and Reel (3kpcs)



## ► OUTLINE DRAWING:



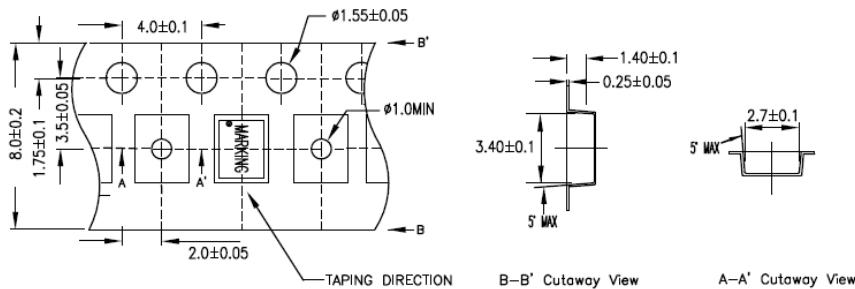
## ► REFLOW PROFILE:



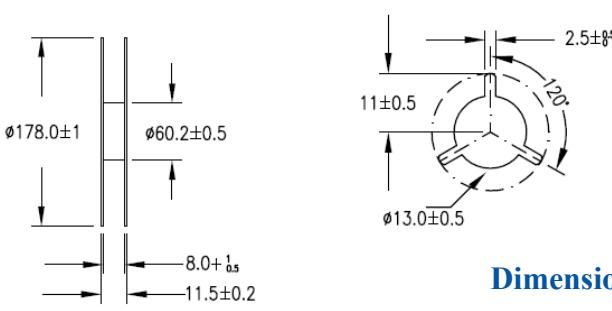
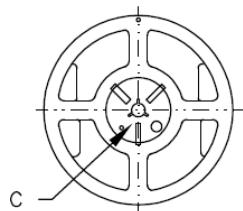
## ► TAPE &amp; REEL:

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

T3= Tape and reel (3,000pcs/reel) 1.CARRIER TYPE



## 2.REEL



Dimensions: mm

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