

# IoT OPTIMIZED LOW PROFILE QUARTZ CRYSTAL



ABM11W-101-32.0000MHZ-T3



2.0 x 1.6 x 0.5mm  
RoHS/RoHS II Compliant

MSL = N/A: NOT APPLICABLE

## FEATURES

- Optimized for energy saving wearables, and IoT applications
- 0.5 mm max height ideally suited for height constrained designs
- Seam sealed for longterm reliability

## APPLICATIONS

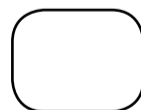
- Wearables
- Internet of Things (IoT)
- Bluetooth/Bluetooth Low Energy (BLE)
- Wireless modules
- Machine-to-machine (M2M) connectivity
- Ultra-low power MCU
- Near Field Communication (NFC)
- ISM Band

## KEY ELECTRICAL SPECIFICATIONS

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency		32.0000		MHz	
Operation Mode		Fundamental			
Operating Temperature Range	-40		+85	°C	
Storage Temperature	-55		+125	°C	
Frequency Tolerance @ +25°C	-10		+10	ppm	
Frequency Stability over the Operating Temperature ( ref. to +25°C)	-20		+20	ppm	
Equivalent series resistance (R1)			80	Ω	
Shunt capacitance (C0)		<1.0	2.0	pF	
Load capacitance (CL)		8.0		pF	
Drive Level		10	100	μW	
Aging (1 year)	-2		+2	ppm	@ 25°C±3°C
Insulation Resistance	500			MΩ	@ 100Vdc ± 15V

## PART IDENTIFICATION

ABM11W-101-32.0000MHz -



### Packaging

Blank: Bulk

T3: 3kpcs / reel

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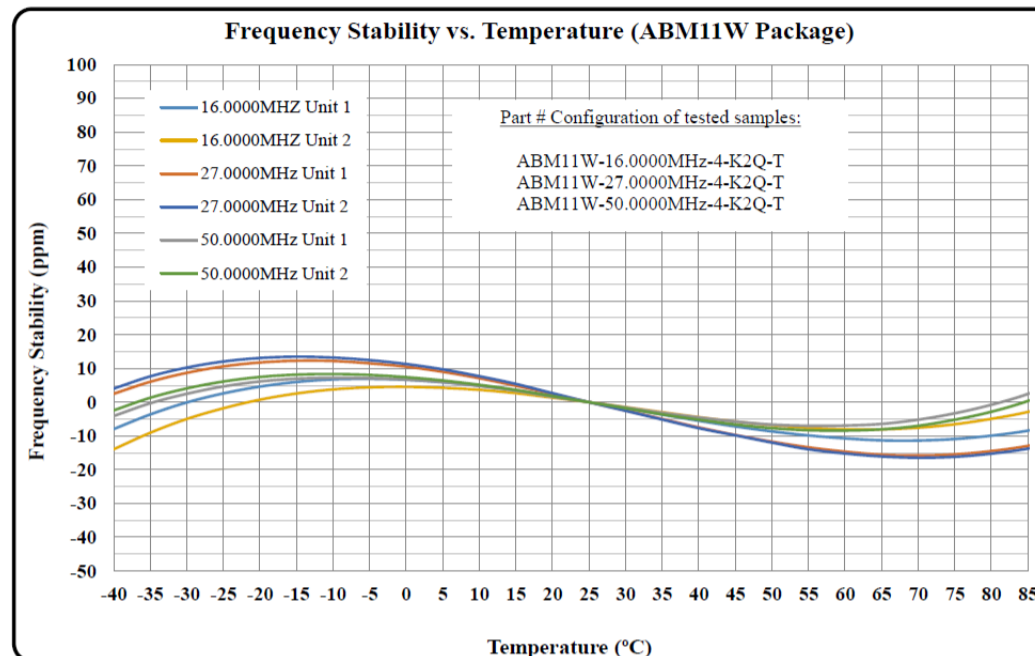
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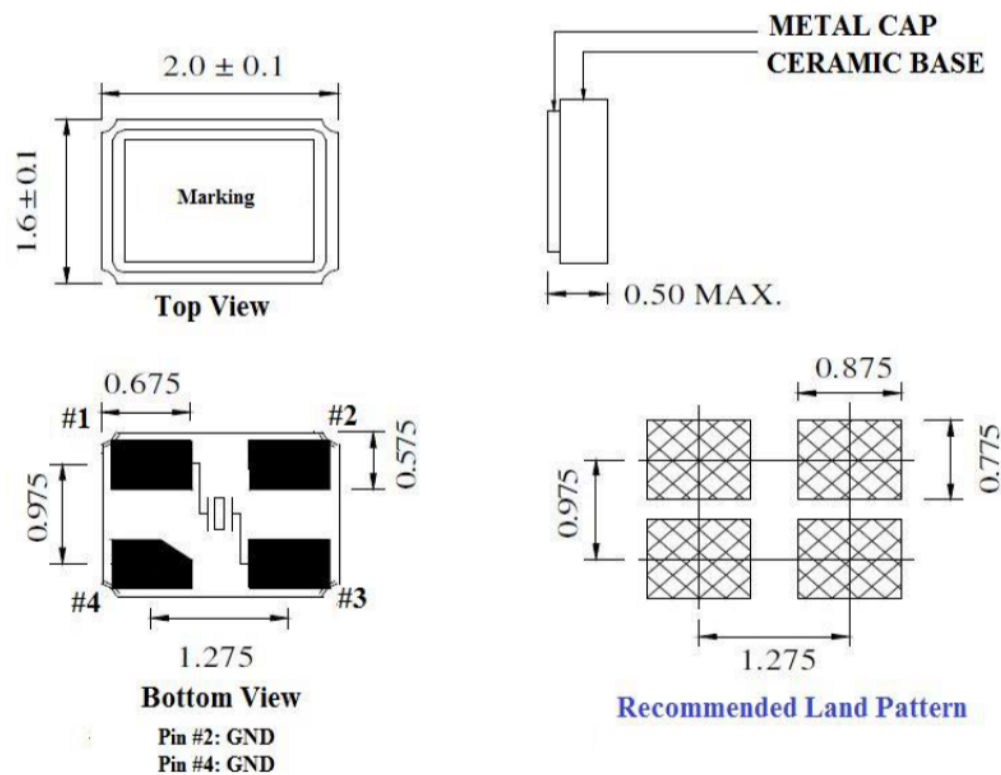
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## TYPICAL FREQUENCY vs. TEMPERATURE CHARACTERISTICS



## MECHANICAL DIMENSIONS



Dimensions: mm

### Note:

Due to material availability the Chamfer could be located on pin #1, 2 or 4. Be advised that the Chamfer location has no impact on the electrical performance of the device.

**SEALING METHOD = GLASS SEALING**

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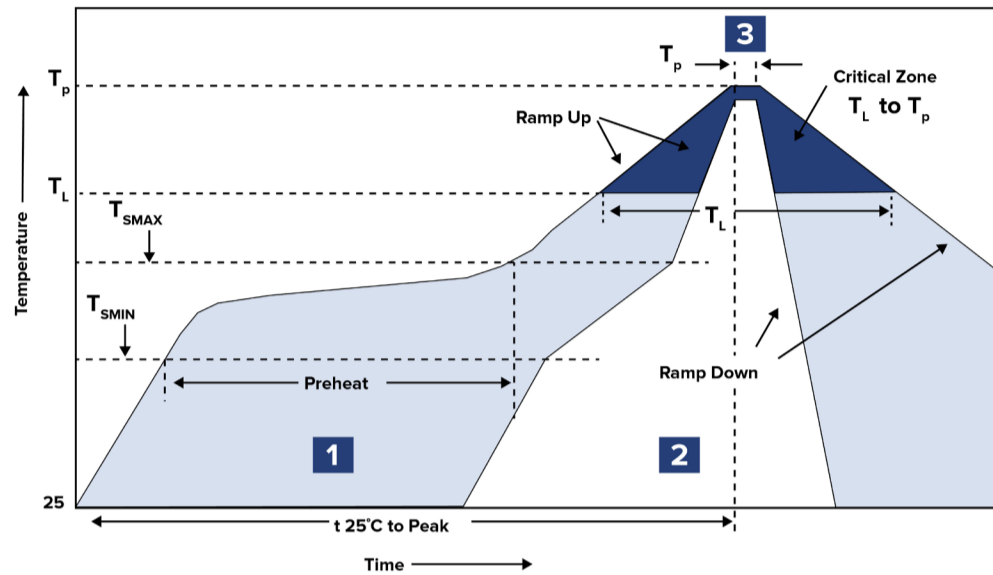
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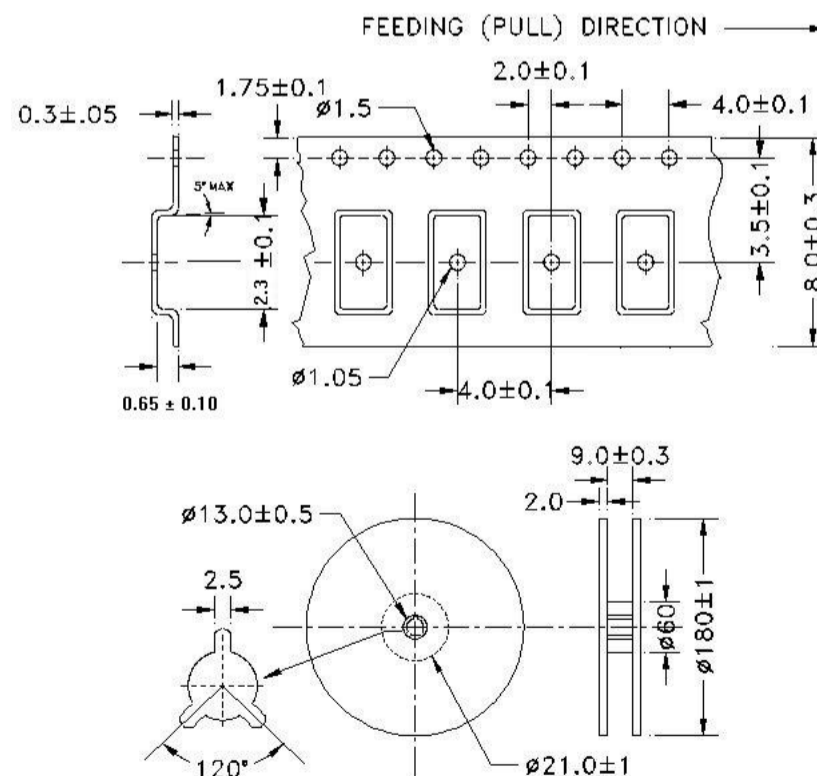
## REFLOW PROFILE



Zone	Description	Temperature	Time
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	45 ~ 90 sec.
3	Peak Heat	$T_p$ 260°C MAX	10 sec.

## PACKAGING:

T3: Tape and reel (3,000 pcs/reel)



Dimensions: mm