# **COMMUNICATION CRYSTALS** ULTRA MINIATURE • UM-1 • UM-4

ABU, ABU4





#### **FEATURES:**

- · Compact size.
- · High precision crystal.
- · Hermetically sealed.
- Excellent frequency temperature characteristics across a wide temperature range.

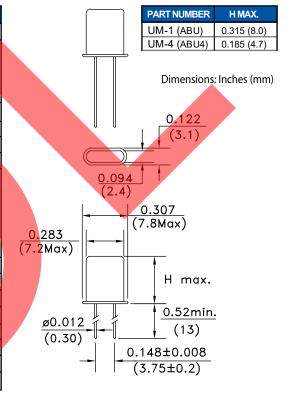
### **APPLICATIONS:**

- Pagers
- Hand-held phones
- Cordless phones
- Communication equipment

#### **STANDARD SPECIFICATIONS:**

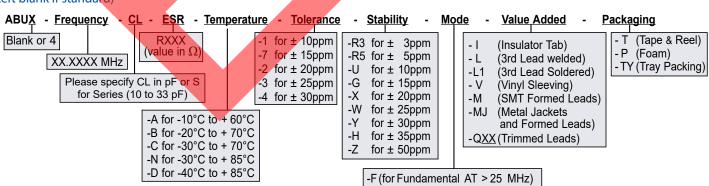
PARAMETERS	ABU (UM-1)	ABU4 (UM-4)
Frequency Range	6MHz - 200MHz	10MHz - 200MHz
Operation Mode		F ≤ 25.00MHz (Fundamental)
		F < 72.0MHz (3rd overtone)
		F < 160.0MHz (5th overtone) F ≤ 200.00MHz (7th overtone)
		,
Operating Temperature	0°C to +70°C (See Options)	
Storage Temperature	-40°C to +125°C	
Frequency Tolerance @ 25°C	±50pp	om max. (See Options)
Frequency Stability over Temp.	±50ppm max. (See Options)	
Equivalent Series Resistance (ESR)	120 $\Omega$ max. for 100 $\Omega$ max. for	or 6.0MHz < F < 7.0MHz or 7.0MHz < F < 8.0MHz
Fundamental	80 Ω max, fo 60 Ω max, fo 50 Ω max, fo 40 Ω max, fo	or 8.0MHz ≤ F < 10.0MHz or 10.0MHz ≤ F < 11.0MHz or 11.0MHz ≤ F < 12.0MHz or 12.0MHz ≤ F < 14.0MHz or 14.0MHz ≤ F ≤ 25.0MHz
3rd Overtone	70 Ω m <mark>ax. f</mark> c	or 25.0MHz < F < 72.0MHz
5th Overtone	100 Ω max. fo	72.0MHz ≤ F < 160.0MHz
7th Overtone	140 Ω max. fo	or 160.0MHz ≤ F ≤ 200.0MHz
Shunt Capacitance C <sub>0</sub>	7pF max.	
Load Capacitance C∟	18pF (See Options)	
Drive Level	1mW max., 100µW correlation	
Aging @ 25°C First Year	±3ppm max. (tighter aging available)	
Insulation Resistance	500M Ω min. at 100Vdc ±15V	

## **OUTLINE DIMENSIONS**



## **OPTIONS & PART IDENTIFICATION:**

(Left blank if standard)



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