

COMMUNICATION CRYSTALS

ULTRA MINIATURE • UM-1 • UM-4

ABU, ABU4



RoHS
Compliant



7.8 x 3.1 x 8.0 mm

FEATURES:

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

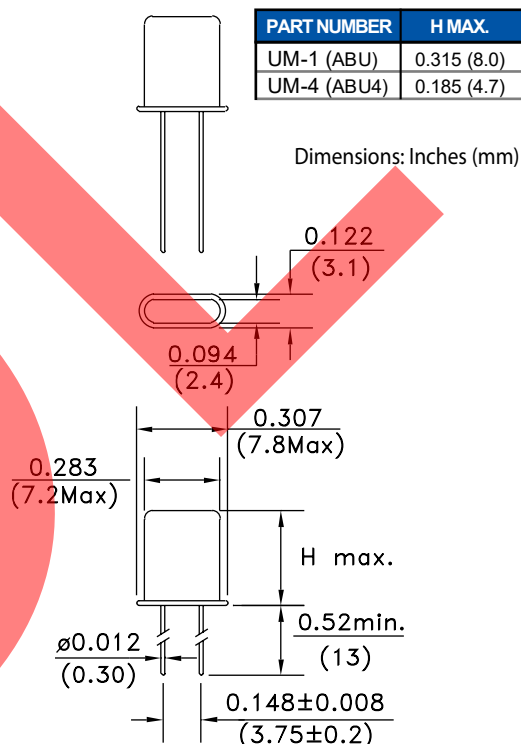
APPLICATIONS:

- 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	6.00MHz ≤ F ≤ 25.00MHz (Fundamental) 25.0MHz < F < 72.0MHz (3rd overtone) 72.00MHz < F < 160.0MHz (5th overtone) 160.0MHz ≤ 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	±50ppm max. (See Options)	
Frequency Stability over Temp.	±50ppm max. (See Options)	
Equivalent Series Resistance (ESR)	120 Ω max. for 6.0MHz < F < 7.0MHz 100 Ω max. for 7.0MHz ≤ F < 8.0MHz 80 Ω max. for 8.0MHz ≤ F < 10.0MHz 60 Ω max. for 10.0MHz ≤ F < 11.0MHz 50 Ω max. for 11.0MHz ≤ F < 12.0MHz 40 Ω max. for 12.0MHz ≤ F < 14.0MHz 30 Ω max. for 14.0MHz ≤ F ≤ 25.0MHz	
Fundamental	70 Ω max. for 25.0MHz ≤ F < 72.0MHz	
3rd Overtone	100 Ω max. for 72.0MHz ≤ F < 160.0MHz	
5th Overtone	140 Ω max. for 160.0MHz ≤ F ≤ 200.0MHz	
7th Overtone	7pF max.	
Shunt Capacitance C ₀	18pF (See Options)	
Load Capacitance C _L	1mW max., 100μW correlation	
Drive Level	±3ppm max. (tighter aging available)	
Aging @ 25°C First Year	500M Ω min. at 100Vdc ±15V	
Insulation Resistance		

OUTLINE DIMENSIONS



OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ABUX	- Frequency	- CL	- ESR	- Temperature	- Tolerance	- Stability	- Mode	- Value Added	- Packaging
	Blank or 4		RXXX (value in Ω)		-1 for ± 10ppm -7 for ± 15ppm -2 for ± 20ppm -3 for ± 25ppm -4 for ± 30ppm	-R3 for ± 3ppm -R5 for ± 5ppm -U for ± 10ppm -G for ± 15ppm -X for ± 20ppm -W for ± 25ppm -Y for ± 30ppm -H for ± 35ppm -Z for ± 50ppm		- I (Insulator Tab) - L (3rd Lead welded) - L1 (3rd Lead Soldered) - V (Vinyl Sleeve) - M (SMT Formed Leads) - MJ (Metal Jackets and Formed Leads) - QXX (Trimmed Leads)	- T (Tape & Reel) - P (Foam) - TY (Tray Packing)
	XX.XXXX MHz	Please specify CL in pF or S for Series (10 to 33 pF)							
		-A for -10°C to +60°C -B for -20°C to +70°C -C for -30°C to +70°C -N for -30°C to +85°C -D for -40°C to +85°C							
						-F (for Fundamental AT > 25 MHz)			

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



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