



- Miniature and compact. Ideal for telecommunications such as pagers (beepers), hand-held radios.
- U1SM is UM-1 bent-lead gull wing type with metal jacket for easy surface mounting

SPECIFICATIONS

		Thru-hole types			Surface Mount Types		
Crystal Holder Prefix		<i>UM-1:</i> UM-1 holder 8.0mm (0.315")			<i>U1SM:</i> Bent-lead gull wing UM-1 holder		
		<i>UM-5:</i> UM-5 holder 6.0mm (0.236")			<i>U5SM:</i> Bent-lead gull wing UM-5 holder		
		<i>U1SL:</i> Slim version of UM-1. Metal can thickness is 2.6 mm (0.102")					
Frequency Range		UM-1 and U1SL: 1.0 ~ 1.2 MHz; 4.0 ~200.0 MHz			UM-5: 10.0~200.0 MHz		
UM-1, U1SM, and U1SL Equivalent Series Resistance (E.S.R.)	Frequency	Osc. Mode	E.S.R. max	Frequency	Osc. Mode	E.S.R. max.	
	1.0~1.2	SL-cut funda.	5K Ω	10.0~10.99	AT-cut funda.	60 Ω	
	4.0~4.9	AT-cut funda.	150 Ω	11.0~12.9	AT-cut funda.	40 Ω	
	5.0~5.9	AT-cut funda.	120 Ω	13.0~45.0	AT-cut funda.	25 Ω	
	6.0~6.9	AT-cut funda.	100 Ω	30.0~50.0	AT-cut 3rd. O/T	40 Ω	
	7.0~7.9	AT-cut funda.	90 Ω	50.1~100.0	AT-cut 3rd. O/T	50 Ω	
	8.0~9.9	AT-cut funda.	80 Ω	80.0~200.0	AT-cut 5 th O/T.	80 Ω	
UM-5 and U5SM Equivalent Series Resistance (E.S.R.)	Frequency	Osc. Mode	E.S.R. max	Frequency	Osc. Mode	E.S.R. max.	
	10.0~11.99	AT cut funda.	60 Ω	90.0~135.0	AT-cut 3rd. O/T	40 Ω	
	12.0~14.99	AT cut funda.	50 Ω	90.0~159.9	AT-cut 5 th O/T	100 Ω	
	15.0~35.0	AT cut funda.	30 Ω	160.0~200.0	AT-cut 5 th O/T	80 Ω	
	35.0~89.99	AT cut 3 rd O/T	60 Ω				
Calibration Tolerance		SL-cut: ±50 ppm at +25°C AT-cut: ±3, ±5, ±10, or ±30ppm at +25°C					
Frequency Stability		SL-cut: ±100 ppm over -10 to +60°C AT-cut: ±30 ppm over -10 to +60°C. Stability as tight as ±2.5 ppm over -10 to +60°C for pager and telecommunication applications is also available.					
Shunt Capacitance (Co)		7 pF maximum					
Load Capacitance (CL)		Series (spec. code is "S") or Parallel. If parallel please specify CL value. Typical CL ranges from 8 to 32 pF					
Drive Level		100 μW					
Aging		±2 ppm per year maximum					

MERCURY www.mercury-crystal.com

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**UM1, UM5, U1SL
U1SM, U5SM**

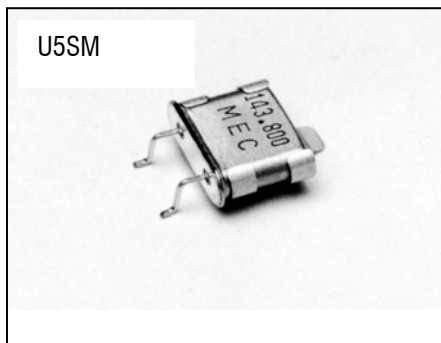
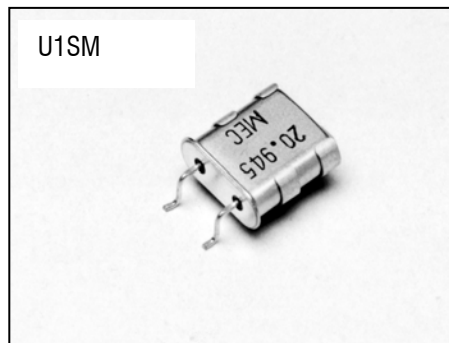
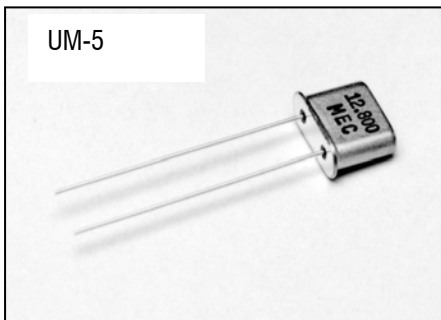
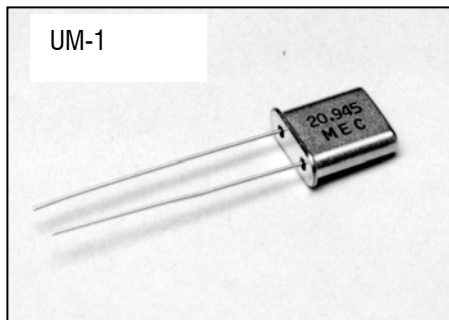
**Thru-Hole Crystals
Surface Mount Crystals**



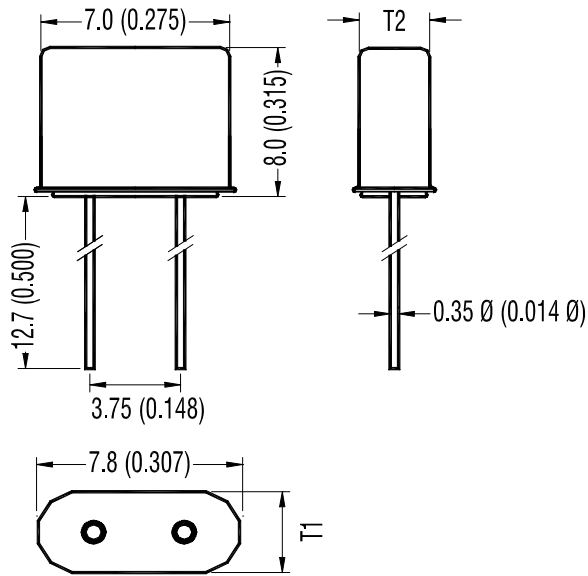
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STANDARD FREQUENCIES AND PART NUMBERS (partial frequency list only. Frequency tolerance, frequency stability and ESR can be specified per your requirements). For UM-5 or other packages please replace "UM1" with appropriate package code.

<u>MEC Part Number</u>	<u>MEC Specification Code</u>	<u>MEC Part Number</u>	<u>MEC Specification Code</u>
UM1-1.000-32P	50/100/-10+60/5KR (SL-cut)	UM1-24.000-16P	30/30/-10+60/25R
UM1-9.600-16P	25/30/-20+70/80R	UM1-24.00014-16P	30/30/-10+60/25R
UM1-10.000-18P	10/20/-10+60/60R	UM1-29.4912-16P	30/30/-10+60/25R
UM1-12.000-16P	30/30/-10+60/40R	UM1-30.000-16P	30/30/-10+60/25R
UM1-14.31818-16P	30/30/-10+60/25R	UM1-32.000-16P	30/30/-10+60/25R
UM1-14.7456-16P	30/30/-10+60/25R	UM1-35.2512-16P	10/10/-20+70/25R
UM1-16.000-16P	30/30/-10+60/25R	UM1-40.000-16P	30/30/-10+60/25R
UM1-16.000312-16P	30/30/-10+60/25R	UM1-45.000-S	30/30/-10+60/25R
UM1-18.432-16P	30/30/-10+60/25R	UM1-77.760A3-S	25/30/-10+60/50R (AT 3 rd O/T)
UM1-19.6608-16P	30/30/-10+60/25R	UM1-100.000A3-S	30/30/-10+60/50R (AT 3 rd O/T)
UM1-20.000-16P	30/30/-10+60/25R	UM1-125.000A5-S	30/30/-10+60/80R (AT 5 th O/T)
UM1-20.2752-16P	30/30/-10+60/25R		

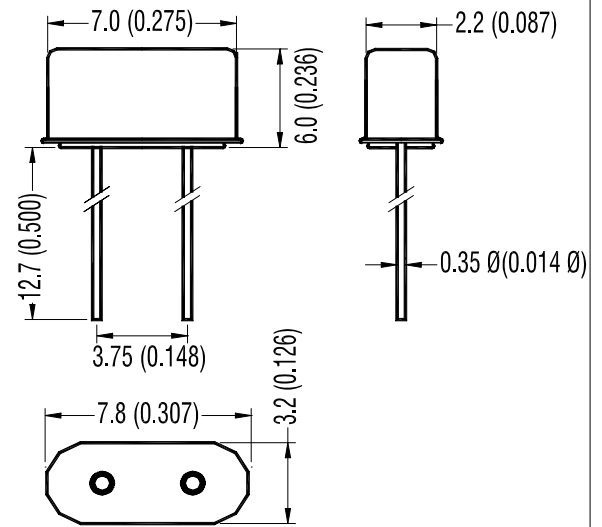


Package: UM-1, U1SL Unit: mm [inches]

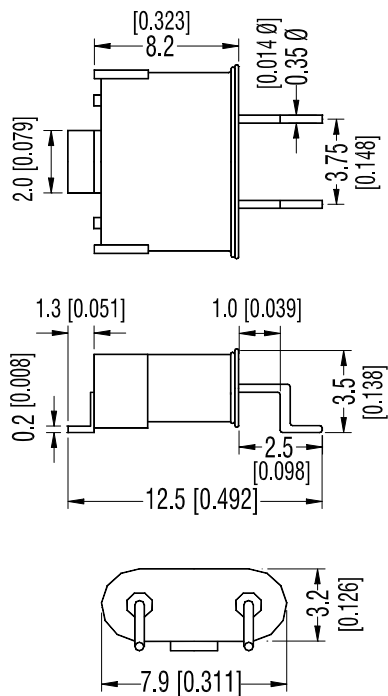


	T1	T2
UM-1	3.2 (0.126)	2.2 (0.087)
U1SL	2.6 (0.102)	1.8 (0.071)

Package: UM-5



Package: U1SM



Package: U5SM

