



ISSUE 13; May 2012 - RoHS 2011/65/EU

Description

- Industry standard leaded package
Resistance welded, hermetically sealed in an inert atmosphere, glass to metal seals on leads
Variants available include but are not limited to:-
3L = a centre mounted third leg grounds the can
SMD = Gull-Wing version
Please contact our sales offices for more options
HC45 package is not dimensionally identical to the UM1 but for most applications the two packages are interchangeable
For UM4 and UM5 package type please contact the sales offices

Frequency Range

- Frequency 6.0000 to 175.0Mhz
- Frequency Tolerance ±5ppm to ±100ppm

General Specification

- Load Capacitance (CL) 10.0pF to 75.0pF or Series
- Drive Level 1mW max
- Ageing ±3ppm typical per year
- Shunt Capacitance (C0) 7pF max

Operating Temperature Ranges

- 0 to 50°C
- 10 to 60°C
- 20 to 70°C
- 30 to 80°C
- 40 to 85°C
- 55 to 105°C
- 55 to 125°C

Environmental Parameters

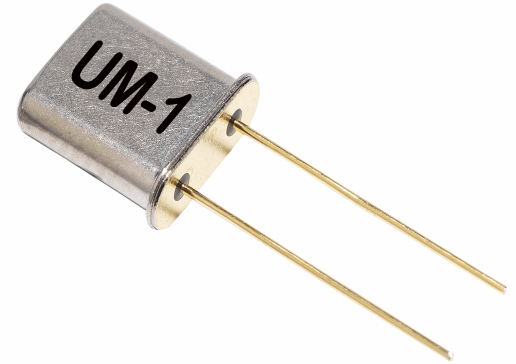
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-2000Hz, 98.1m/s², 30mins in 3 mutually perpendicular planes

Ordering Information

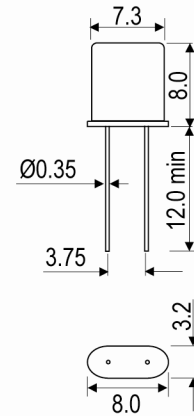
- Example
10.0MHz UM1
50/50/-40 to 85C/10 FUND
- Frequency*
Model*
Frequency Tolerance (@ 25°C)*
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Load Capacitance*
Overtone*
(*minimum required)

Packing Details

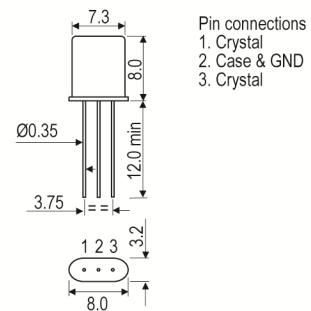
- Pack Style: **Bulk** Loose in bulk pack
Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-468-C (I)
Pack Size 1,000



Outline (mm)



-SMD = Surface Mount Device



Pin connections
1. Crystal
2. Case & GND
3. Crystal

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- Alternative packing options available

Electrical Specification - maximum limiting values

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
6.0 to <10.0MHz	±5ppm to ±100ppm	±10ppm ±15ppm ±15ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	80Ω	Fundamental
10.0 to <15.0MHz	±5ppm to ±100ppm	±10ppm ±15ppm ±15ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	60Ω	Fundamental
15.0 to <30.0MHz	±5ppm to ±100ppm	±5ppm ±5ppm ±10ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	30Ω	Fundamental
25.0 to <90.0MHz	±5ppm to ±100ppm	±5ppm ±5ppm ±10ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	45Ω	3RD Overtone
60.0 to <150.0MHz	±5ppm to ±100ppm	±5ppm ±5ppm ±10ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	100Ω	5TH Overtone
125.0 to <175.0MHz	±5ppm to ±100ppm	±5ppm ±5ppm ±10ppm ±20ppm ±25ppm ±50ppm ±50ppm	±100ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C -55 to 125°C	200Ω	7TH Overtone

This document was correct at the time of printing; please contact your local sales office for the latest version

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