

ISSUE 14; July 2021

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
- -3L 3 Lead
- 3 Lead version
- -3L-SMD 3L-Surface Mount
- 3 Lead Surface Mount Device
- Standard 2 pin version
- -SMD Surface Mount Device
- Surface Mount Device

Frequency Parameters

- | | |
|-----------------------|------------------------|
| ■ Frequency | 6.0MHz to 175.0MHz |
| ■ Frequency Tolerance | ±5.00ppm to ±100.00ppm |
| ■ Frequency Stability | ±5.00ppm to ±100.00ppm |
| ■ Ageing | ±3ppm typical per year |

Electrical Parameters

- | | |
|--------------------------|------------------|
| ■ Load Capacitance (CL) | 10.0pF to 75.0pF |
| ■ Shunt Capacitance (C0) | 7pF max |
| ■ Drive Level | 1mW max |

Operating Temperature Ranges

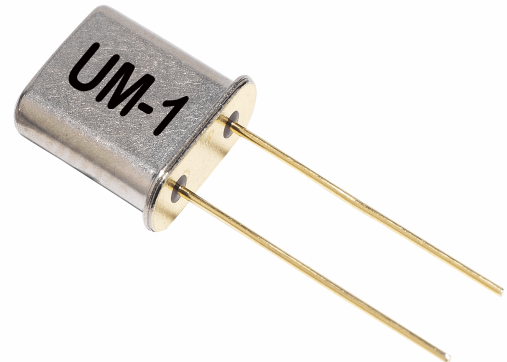
- 0 to 50°C
- -10 to 60°C
- -20 to 70°C
- -30 to 80°C
- -40 to 85°C
- -55 to 105°C
- -55 to 125°C

Environmental Parameters

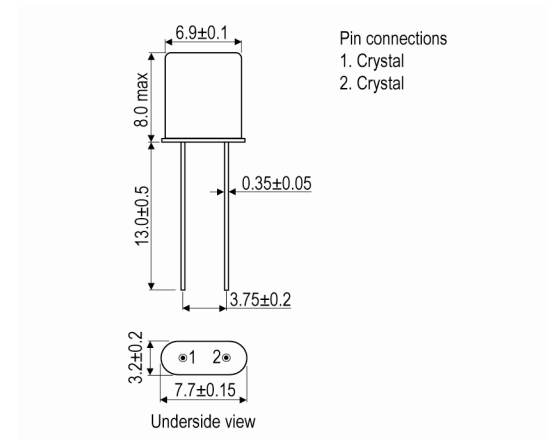
- Storage Temperature Range: -55 to 125°C
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-2000Hz, 98.1m/s², 30mins in 3 mutually perpendicular planes

Manufacturing Details

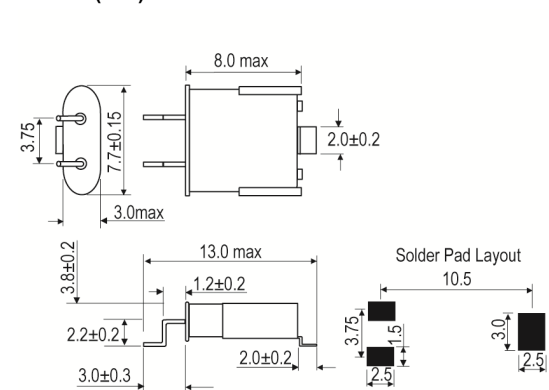
- | | |
|---------------------|-------------|
| ■ RoHS Terminations | Au |
| ■ RoHS Reflow | 260degC 10s |



Outline (mm)



Outline (mm) -SMD = Surface Mount Device



Sales Office Contact Details:

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Ordering Information

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

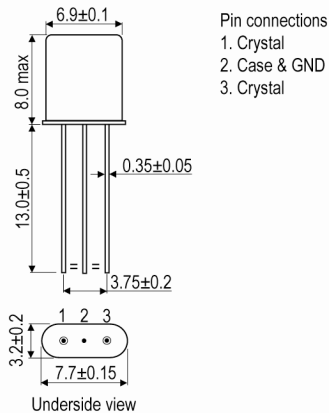
Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape and reel in accordance with EIA-468-C (leaded product) or EIA-481-D (SMD product)
- Pack Size: 1,000
- Pack Style: Bulk Loose in bulk pack
- Pack Size: 100

Outline (mm) -3L = 3 Lead



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
6.0MHz	9.999999MHz	0 to 50	±10	Fundamental	80
		-10 to 60	±15		80
		-20 to 70	±15		80
		-30 to 80	±20		80
		-40 to 85	±25		80
		-55 to 105	±50		80
		-55 to 125	±50		80
10.0MHz	14.999999MHz	0 to 50	±10	Fundamental	60
		-10 to 60	±15		60
		-20 to 70	±15		60
		-30 to 80	±20		60
		-40 to 85	±25		60
		-55 to 105	±50		60
		-55 to 125	±50		60
15.0MHz	30.0MHz	0 to 50	±5	Fundamental	30
		-10 to 60	±5		30
		-20 to 70	±10		30
		-30 to 80	±20		30
		-40 to 85	±25		30
		-55 to 105	±50		30
		-55 to 125	±50		30
25.0MHz	90.0MHz	0 to 50	±5	3rd Overtone	45
		-10 to 60	±5		45
		-20 to 70	±10		45
		-30 to 80	±20		45
		-40 to 85	±25		45
		-55 to 105	±50		45
		-55 to 125	±50		45
60.0MHz	150.0MHz	0 to 50	±5	5th Overtone	100
		-10 to 60	±5		100
		-20 to 70	±10		100
		-30 to 80	±20		100
		-40 to 85	±25		100
		-55 to 105	±50		100
		-55 to 125	±50		100
125.0MHz	175.0MHz	0 to 50	±5	7th Overtone	200
		-10 to 60	±5		200
		-20 to 70	±10		200
		-30 to 80	±20		200
		-40 to 85	±25		200
		-55 to 105	±50		200
		-55 to 125	±50		200

*Stability Maximum values ±100ppm

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Quartz Crystal Specification **UM1**

*This document was correct at the time of printing; please contact your local sales office for the latest version.
[Click to view latest version on our website.](#)*

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