





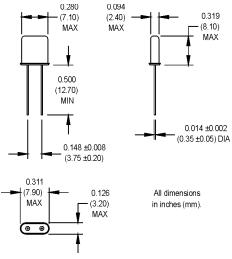


The UM series of miniature resistance weld crystals are suitable for applications where tight specs, small footprint, and wide frequency range is important.

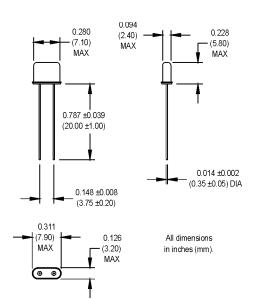
UM-1 00.0000 MHz (customer specified frequency)

UM-1 and UM-5 Crystals

UM-1-R 00.0000 MHz (RoHS Compliant and customer specified frequency)



See page 2 for gull wing configuration.



### **Electrical/Environmental Specifications**

| PARAMETERS                               | UM-1/*SRUM-1                  | UM-5/*SRUM-5      |
|--|-------------------------------|-------------------|
| Frequency Range (MHz)                    | 6.000 to 200.000              | 12.000 to 200.000 |
| Tolerance @ +25°C                        | ±25 ppm                       | ±25 ppm           |
| Stability                                | ±35 ppm                       | ±35 ppm           |
| Aging                                    | ±5 ppm/yr. Max.               | ±5 ppm/yr. Max.   |
| Shunt Capacitance                        | 7 pF Max.                     | 7 pF Max.         |
| Load Capacitance                         | 18 pF Std.                    | 18 pF Std.        |
| Standard Operating Conditions            | -20°C to +70°C                | -20°C to +70°C    |
| Equivalent Series Resistance (ESR), Max. |                               |                   |
| Fundamental (AT-cut)                     |                               |                   |
| 6.000 to 7.999 MHz                       | 1 <b>20</b> Ω                 |                   |
| 8.000 to 9.999 MHz                       | <b>80</b> Ω                   |                   |
| 10.000 to 17.999 MHz                     | 40 Ω                          | <b>40</b> Ω       |
| 18.000 to 30.000 MHz                     | <b>30</b> Ω                   | <b>30</b> Ω       |
| Third Overtones (AT-cut)                 |                               |                   |
| 25.000 to 29.999 MHz                     | <b>50</b> Ω                   | <b>50</b> Ω       |
| 30.000 to 75.000 MHz                     | 45 Ω                          | <b>45</b> Ω       |
| Fifth Overtones (AT-cut)                 |                               |                   |
| 50.000 to 143.000 MHz                    | 90 Ω                          | <b>90</b> Ω       |
| Seventh Overtones (AT-cut)               |                               |                   |
| 125.000 to 180.000 MHz                   | 1 <b>40</b> Ω                 | 140 Ω             |
| Ninth Overtones (AT-cut)                 |                               |                   |
| 180.000 to 200.000 MHz                   | <b>150</b> Ω                  | <b>150</b> Ω      |
| Drive Level                              | 1 mW Max.                     | 1 mW Max.         |
| Holder                                   | UM-1                          | UM-5              |
| Mechanical Shock                         | MIL-STD-202, Method 213, C    |                   |
| Vibration                                | MIL-STD-202, Method 201 & 204 |                   |
| Solder Conditions                        | See page 147                  |                   |
| Thermal Cycle                            | MIL-STD-883, Method 1010, B   |                   |

\* Series resonant designated by "SR" prefix (i.e., **SR**UM-1). Contact the factory for specifications not listed.

UM-5 00.0000 MHz (customer specified frequency) UM-5-R 00.0000 MHz (RoHS Compliant and customer specified frequency)

See page 2 for gull wing configuration.

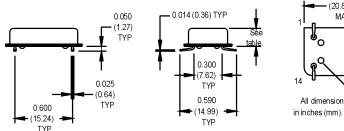
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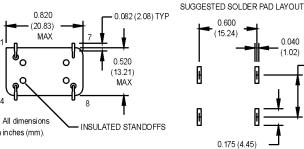
Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

## **Gull Wing/Surf Board Configurations**









# (1.02)

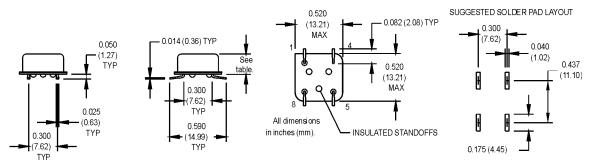
0.040

0.437

(11.10)

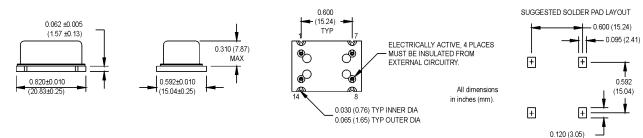
For this dimension please refer to the individual product family datasheet.

#### Half Size Standard Gull Wing Oscillator

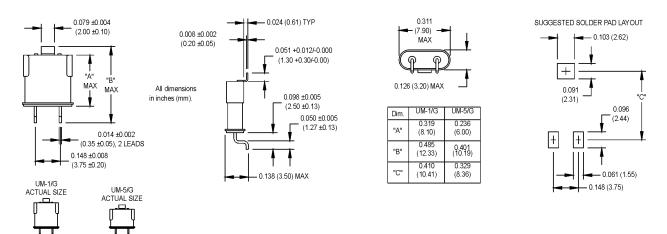


For this dimension please refer to the individual product family datasheet.

#### MTXO and MTXV Series Standard Surf Board Oscillator



#### UM-1/G and UM-5/G Standard Gull Wing Crystals



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