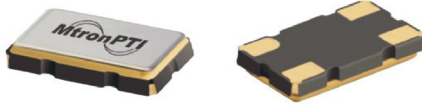
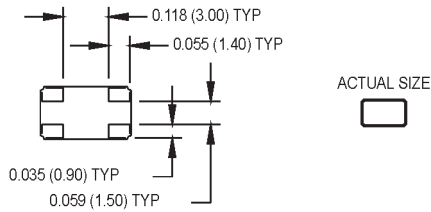
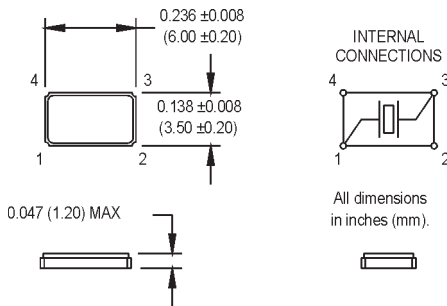


PP Surface Mount Crystals

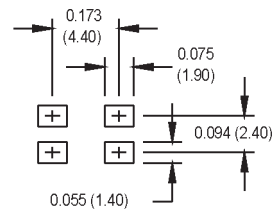
3.5 x 6.0 x 1.2 mm



- Miniature low profile package
- RoHS Compliant
- Wide frequency range
- PCMCIA - high density PCB assemblies



SUGGESTED SOLDER PAD LAYOUT



Available Stabilities vs. Temperature

| T \ S | D | F | G | J | M |
|-------|---|---|---|---|---|
| 1 | A | A | A | A | A |
| 2 | N | N | A | A | A |
| 3 | A | A | A | A | A |
| 6 | N | N | A | A | A |

A = Available
N = Not Available

Ordering Information

| | | | | | | |
|--------------------------------|---------------------------------------|------------|-------------------|------------|-------------------|-------------|
| Product Series | PP | 1 | M | M | XX | 00.0000 |
| Temperature Range | 1: 0°C to +70°C | | 2: -10°C to +60°C | | 3: -20°C to +70°C | |
| | 4: -20°C to +70°C | | 5: -20°C to +80°C | | 6: -40°C to +85°C | |
| Tolerance | D: ±10 ppm | F: ±15 ppm | G: ±20 ppm | J: ±30 ppm | M: ±50 ppm | H: ±25 ppm |
| Stability | C: ±5 ppm | F: ±15 ppm | H: ±25 ppm | M: ±50 ppm | D: ±10 ppm | G: ±20 ppm |
| | | | | | J: ±30 ppm | P: ±100 ppm |
| Load Capacitance | Blank: 18 pF (std) | | | | | |
| | S: Series Resonant | | | | | |
| | XX: Customer Specified 10 pF to 32 pF | | | | | |
| Frequency (customer specified) | | | | | | |

M1003Sxxx - Contact factory for datasheet.

| PARAMETERS | VALUE | |
|--|----------------------------------|-----------|
| Frequency Range* | 10.000 to 180.000 MHz | |
| Tolerance @ +25°C | See ordering information | |
| Stability | See ordering information | |
| Aging | ±2 ppm/yr Max | |
| Shunt Capacitance | 5 pF Max. | |
| Load Capacitance | See ordering information | |
| Standard Operating Conditions | See ordering information | |
| Equivalent Series Resistance (ESR), Max. | Fundamental (AT-cut) | |
| | 10.000 to 12.999 MHz | 80 Ω Max. |
| | 13.000 to 13.999 MHz | 50 Ω Max. |
| | 14.000 to 19.999 MHz | 40 Ω Max. |
| | 20.000 to 45.000 MHz | 30 Ω Max. |
| | Third Overtones (AT-cut) | 50 Ω Max. |
| Fifth Overtones (AT-cut) | 90 Ω Max. | |
| 100.000 to 180.000 MHz | | |
| Drive Level | 100 μW Max, 50 μW Typ, 10 μW Min | |
| Mechanical Shock | MIL-STD-202, Method 213, C | |
| Vibration | MIL-STD-202, Method 201 & 204 | |
| Thermal Cycle | MIL-STD, Method 1010, B | |
| Max Soldering Conditions | See solder profile, Figure 1 | |

* Because this product is based on AT-strip technology, not all frequencies in the range stated are available. Contact the factory for availability of specific frequencies.

MtronPTI Lead Free Solder Profile

