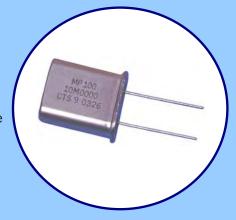




#### **FEATURES**

- Standard HC-49/U Package, HC-49/U SMMC Package Option Available
- Stable Frequency Over Temperature and Drive Level
- Fundamental and 3<sup>rd</sup> Overtone Crystals
- Frequency Range 1.8432 64 MHz
- Frequency Tolerance, ±30 ppm Standard
- Frequency Stability, ±50 ppm Standard
- Operating Temperature, -20°C to +70°C Standard, -40°C to +85°C Available
- Tape & Reel Packaging Available
- RoHS/Green Compliant [6/6]



#### **APPLICATIONS**

The MP crystal series offers excellent long-term stability and reliability in a proven resistance-weld metal package. The excellent shock performance makes it suitable for microprocessor, telecommunication, industrial, consumer electronics and networking applications.

## ORDERING INFORMATION FREQUENCY/LOAD CODE PRODUCT OPTIONS Product Frequency/Load Code. INS - Mylar Insulation Spacer [3 to 4 digits] SMMC - Surface Mount Lead Form w/ Metal Clip Third Lead \* Refer to Standard Product Part Numbers SLV - Insulating Body Sleeve [Obsolete] SM - Surface Mount Lead Form w/ TW Third Lead [Obsolete] table on Page 2. TW - Hold Down, Welded Top Wire [Obsolete] **PACKAGING OPTIONS TEMPERATURE RANGE OPTIONS** Blank - Bulk \*\* 1 - Tape and Reel [SM/SMMC Product Option Only] Blank - Standard, -20°C to +70°C 2 - Radial Taping [Ammopak] E - Extended Temperature Range, -40°C to +85°C \*\* Standard packaging is bulk in a bag. \* Consult factory for Option availability. **Non-Standard Ordering Options** Contact your local CTS Representative or CTS Inside Sales Representative for assistance.

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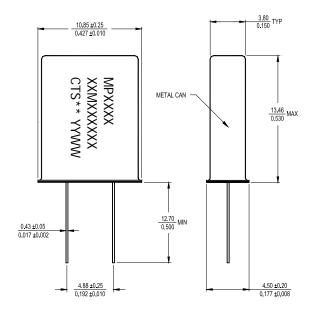
18924600166 QQ: 857950243 http://www.vc-tcxo.com



# MP SERIES LOW COST QUARTZ CRYSTAL

### **MECHANICAL SPECIFICATIONS**

#### MP PACKAGE DRAWING



KEY: MM INCH

#### MARKING INFORMATION

- MPXXXX CTS Part Number.
  [Per Ordering Information Format]
- XXMXXXXXX Frequency is marked with only leading significant digits before the 'M' and 4 – 6 digits after the 'M' [including zeros].
   Ex. XMXXXXXX – 3M579545

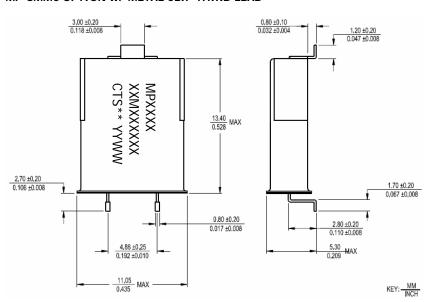
Ex. XMXXXXXX - 3M579545 XXMXXXXX - 14M31818 XXMXXXX - 20M0000

- 2. \*\* Manufacturing Site Code.
- 3. YYWW Date Code, YY year, WW week.
- Complete CTS part number, frequency value and date code information must appear on bag and box labels.

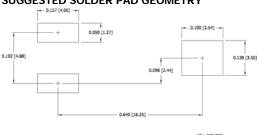
#### **NOTES**

- 1. Lead finish [e1], SnAgCu.
- 2. MSL = 1.

#### MP-SMMC OPTION w/ METAL CLIP THIRD LEAD



#### SUGGESTED SOLDER PAD GEOMETRY



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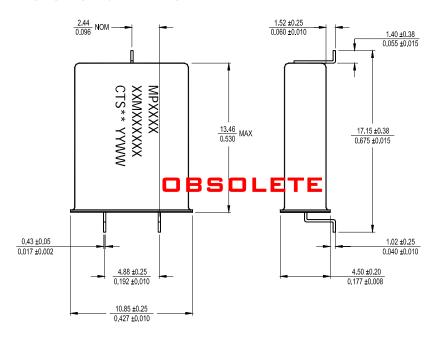
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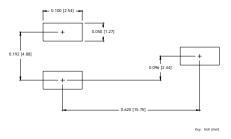
# MP SERIES LOW COST QUARTZ CRYSTAL

#### **MECHANICAL SPECIFICATIONS**

#### MP-SM OPTION w/ WELDED TOP WIRE THIRD LEAD

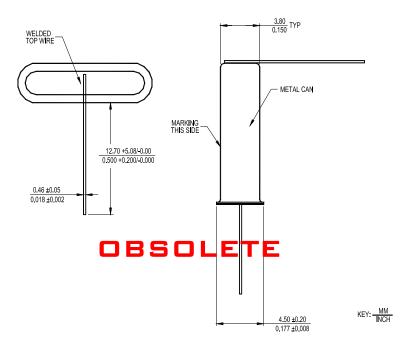


#### SUGGESTED SOLDER PAD GEOMETRY



### KEY: MM

#### MP PACKAGE w/ WELDED TOP WIRE [TW] OPTION



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