



QUARTZ CRYSTAL

FEATURES

- Standard HC-49/US [thru-hole] and HC-49/US-SM [surface mount] Packages
- Stable Frequency Over Temperature and Drive Level
- Fundamental and 3rd Overtone Crystals
- Frequency Range 3.2 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 ATS/ATS-SM 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 **ATS ATS-SM** ATS \square \square \square SM - \square \square PRODUCT OPTIONS TEMPERATURE RANGE OPTIONS INS - Insulation Spacer Blank - Standard, -20°C to +70°C E - Extended Temperature Range, TEMPERATURE RANGE OPTIONS -40°C to +85°C Blank - Standard, -20°C to +70°C E - Extended Temperature Range, PACKAGING OPTIONS -40°C to +85°C Blank - Bulk 1 - Tape and Reel ** PACKAGING OPTIONS Blank - Bulk FREQUENCY 1 - Radial Taping (Ammopak) * Product Frequency/Load Code. [3 to 4 digits] FREQUENCY Refer to Standard Product Part Numbers Product Frequency/Load Code. tables on Pages 2 and 3. [3 to 4 digits] Refer to Standard Product Part Numbers ** Standard packaging is tape and reel. tables on Pages 2 and 3. CTS Distributors may use -T for tape and reel indicator. * Standard packaging is bulk in a bag.

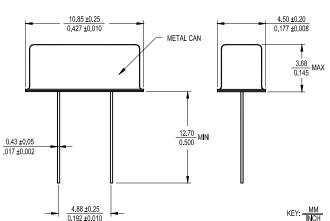
Non-Standard Ordering Options

Contact your local CTS Representative or CTS Inside Sales Representative for assistance.



ATS PACKAGE DRAWING





MARKING INFORMATION

- 1. ATSXXXX CTS Part Number.
 - a) The package code "1" is not required in the marking.
 - b) The -E is required in the marking for extended temperature range parts.

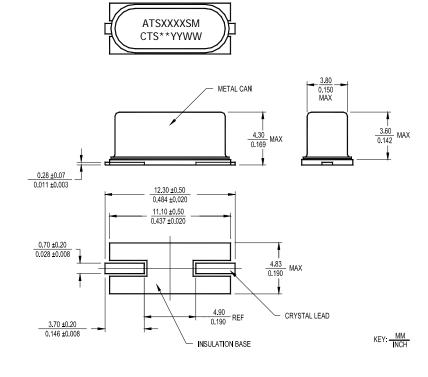
[See Standard Product Part Numbers tables.]

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

NOTES

- 1. Lead finish (e1), SnAgCu.
- $2. \quad MSL = 1.$

ATS-SM PACKAGE DRAWING



MARKING INFORMATION

- 1. ATSXXXXXSM CTS Part Number.
 - a) The package code "1" is not required in the marking.
 - b) The -E is required in the marking for extended temperature range parts. [See Standard Product Part Numbers tables.]
- 2. ** Manufacturing Site Code.
- 3. YYWW Date Code, YY year, WW week.
- 4. 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.

SUGGESTED SOLDER PAD GEOMETRY

