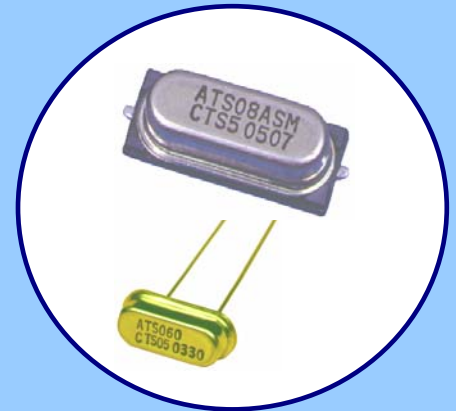


FEATURES

- 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]**

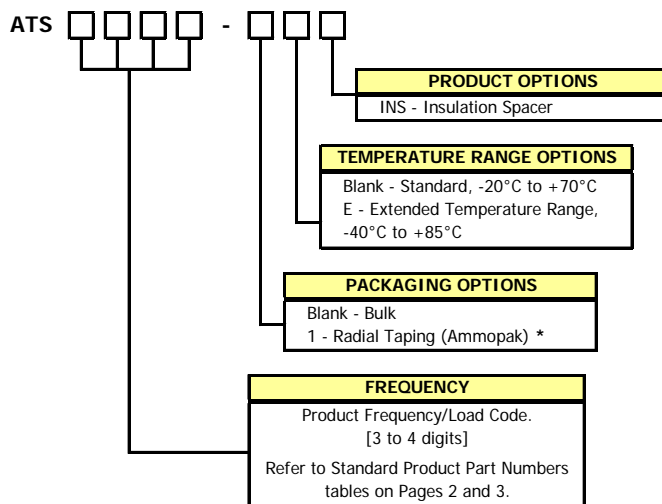


APPLICATIONS

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.

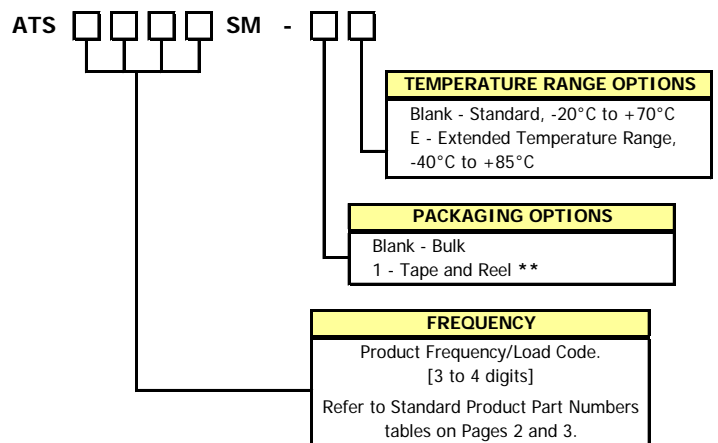
ORDERING INFORMATION

ATS



* Standard packaging is bulk in a bag.

ATS-SM



** Standard packaging is tape and reel.
CTS Distributors may use -T for tape and reel indicator.

Non-Standard Ordering Options

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

STANDARD PRODUCT PART NUMBERS - ATS

Part numbers in **BOLD** are common stock items through CTS authorized distributors. Non-bold part numbers may be stocked or are available for order.

| FREQUENCY (MHz) | PART NUMBER -20/70°C | PART NUMBER -40/85°C | LOAD CAPACITANCE | OPERATING MODE | FREQUENCY (MHz) | PART NUMBER -20/70°C | PART NUMBER -40/85°C | LOAD CAPACITANCE | OPERATING MODE |
|-----------------|----------------------|----------------------|------------------|----------------|-----------------|----------------------|----------------------|------------------|----------------|
| 3.579545 | ATS036B | ATS036B-E | Series | Fundamental | 12.352000 | ATS126 | ATS126-E | Series | Fundamental |
| 3.579545 | ATS036 | ATS036-E | 18 pF | Fundamental | 12.352000 | ATS127 | ATS127-E | 20 pF | Fundamental |
| 3.686400 | ATS037A | ATS037A-E | Series | Fundamental | 13.500000 | ATS135 | ATS135-E | 20 pF | Fundamental |
| 3.686400 | ATS037 | ATS037-E | 20 pF | Fundamental | 14.318180 | ATS143 | ATS143-E | Series | Fundamental |
| 3.686400 | ATS037B | ATS037B-E | 18 pF | Fundamental | 14.318180 | ATS14A | ATS14A-E | 20 pF | Fundamental |
| 4.000000 | ATS04A | ATS04A-E | Series | Fundamental | 14.318180 | ATS143B | ATS143B-E | 18 pF | Fundamental |
| 4.000000 | ATS040 | ATS040-E | 20 pF | Fundamental | 14.745600 | ATS147 | ATS147-E | Series | Fundamental |
| 4.000000 | ATS040B | ATS040B-E | 18 pF | Fundamental | 14.745600 | ATS147A | ATS147A-E | 20 pF | Fundamental |
| 4.096000 | ATS042A | ATS042A-E | 20 pF | Fundamental | 14.745600 | ATS147B | ATS147B-E | 18 pF | Fundamental |
| 4.096000 | ATS042B | ATS042B-E | 18 pF | Fundamental | 15.000000 | ATS150 | ATS150-E | Series | Fundamental |
| 4.194304 | ATS041C | ATS041C-E | 12 pF | Fundamental | 15.360000 | ATS15A | ATS15A-E | 20 pF | Fundamental |
| 4.915200 | ATS049A | ATS049A-E | Series | Fundamental | 16.000000 | ATS160 | ATS160-E | Series | Fundamental |
| 4.915200 | ATS042 | ATS042-E | 20 pF | Fundamental | 16.000000 | ATS16A | ATS16A-E | 20 pF | Fundamental |
| 4.915200 | ATS049B | ATS049B-E | 18 pF | Fundamental | 16.000000 | ATS16B | ATS16B-E | 18 pF | Fundamental |
| 5.000000 | ATS050C | ATS050C-E | Series | Fundamental | 16.384000 | ATS164B | ATS164B-E | 18 pF | Fundamental |
| 5.000000 | ATS050A | ATS050A-E | 20 pF | Fundamental | 16.934400 | ATS169 | ATS169-E | 20 pF | Fundamental |
| 5.000000 | ATS050B | ATS050B-E | 18 pF | Fundamental | 18.000000 | ATS180A | ATS180A-E | 20 pF | Fundamental |
| 5.068800 | ATS051 | ATS051-E | Series | Fundamental | 18.432000 | ATS184 | ATS184-E | Series | Fundamental |
| 5.068800 | ATS050 | ATS050-E | 20 pF | Fundamental | 18.432000 | ATS18A | ATS18A-E | 20 pF | Fundamental |
| 6.000000 | ATS060A | ATS060A-E | Series | Fundamental | 18.432000 | ATS184B | ATS184B-E | 18 pF | Fundamental |
| 6.000000 | ATS060 | ATS060-E | 20 pF | Fundamental | 19.660800 | ATS196 | ATS196-E | Series | Fundamental |
| 6.000000 | ATS060B | ATS060B-E | 18 pF | Fundamental | 19.660800 | ATS19A | ATS19A-E | 20 pF | Fundamental |
| 6.000000 | ATS060C | ATS060C-E | 32 pF | Fundamental | 19.660800 | ATS196B | ATS196B-E | 18 pF | Fundamental |
| 6.144000 | ATS061 | ATS061-E | 20 pF | Fundamental | 20.000000 | ATS200 | ATS200-E | Series | Fundamental |
| 6.144000 | ATS061B | ATS061B-E | 18 pF | Fundamental | 20.000000 | ATS20A | ATS20A-E | 20 pF | Fundamental |
| 6.144000 | ATS061C | ATS061C-E | 32 pF | Fundamental | 20.000000 | ATS200C | ATS200C-E | 18 pF | Fundamental |
| 7.372800 | ATS073A | ATS073A-E | Series | Fundamental | 20.000000 | ATS20B | ATS20B-E | 50 pF | Fundamental |
| 7.372800 | ATS073 | ATS073-E | 20 pF | Fundamental | 20.480000 | ATS204 | ATS204-E | 20 pF | Fundamental |
| 7.372800 | ATS073B | ATS073B-E | 18 pF | Fundamental | 22.118400 | ATS22A | ATS22A-E | 20 pF | Fundamental |
| 7.500000 | ATS075 | ATS075-E | Series | Fundamental | 22.118400 | ATS221B | ATS221B-E | 18 pF | Fundamental |
| 7.500000 | ATS075A | ATS075A-E | 20 pF | Fundamental | 24.000000 | ATS240 | ATS240-E | Series | Fundamental |
| 7.500000 | ATS075B | ATS075B-E | 18 pF | Fundamental | 24.000000 | ATS24A | ATS24A-E | 20 pF | Fundamental |
| 8.000000 | ATS080 | ATS080-E | Series | Fundamental | 24.000000 | ATS240B | ATS240B-E | 18 pF | Fundamental |
| 8.000000 | ATS08A | ATS08A-E | 20 pF | Fundamental | 24.000000 | ATS240C | ATS240C-E | 12 pF | Fundamental |
| 8.000000 | ATS080B | ATS080B-E | 18 pF | Fundamental | 24.576000 | ATS245 | ATS245-E | Series | Fundamental |
| 8.000000 | ATS080C | ATS080C-E | 32 pF | Fundamental | 24.576000 | ATS24B | ATS24B-E | 20 pF | Fundamental |
| 8.192000 | ATS081B | ATS081B-E | 18 pF | Fundamental | 24.576000 | ATS245A | ATS245A-E | 18 pF | Fundamental |
| 9.830400 | ATS099 | ATS099-E | Series | Fundamental | 25.000000 | ATS250 | ATS250-E | Series | Fundamental |
| 9.830400 | ATS098 | ATS098-E | 20 pF | Fundamental | 25.000000 | ATS25A | ATS25A-E | 20 pF | Fundamental |
| 9.830400 | ATS098B | ATS098B-E | 18 pF | Fundamental | 25.000000 | ATS250B | ATS250B-E | 18 pF | Fundamental |
| 10.000000 | ATS100 | ATS100-E | Series | Fundamental | 27.000000 | ATS270A | ATS270A-E | 20 pF | Fundamental |
| 10.000000 | ATS10A | ATS10A-E | 20 pF | Fundamental | 27.000000 | ATS270B | ATS270B-E | 18 pF | Fundamental |
| 10.000000 | ATS100B | ATS100B-E | 18 pF | Fundamental | 32.000000 | ATS320 | ATS320-E | Series | 3rd Overtone |
| 11.059200 | ATS111A | ATS111A-E | Series | Fundamental | 32.000000 | ATS32A | ATS32A-E | 20 pF | 3rd Overtone |
| 11.059200 | ATS111 | ATS111-E | 20 pF | Fundamental | 32.000000 | ATS320B | ATS320B-E | 18 pF | 3rd Overtone |
| 11.059200 | ATS111B | ATS111B-E | 18 pF | Fundamental | 40.000000 | ATS400 | ATS400-E | Series | 3rd Overtone |
| 11.059200 | ATS111C | ATS111C-E | 32 pF | Fundamental | 40.000000 | ATS40A | ATS40A-E | 20 pF | 3rd Overtone |
| 12.000000 | ATS120 | ATS120-E | Series | Fundamental | 40.000000 | ATS400B | ATS400B-E | 18 pF | 3rd Overtone |
| 12.000000 | ATS12A | ATS12A-E | 20 pF | Fundamental | 48.000000 | ATS480A | ATS480A-E | 20 pF | 3rd Overtone |
| 12.000000 | ATS120B | ATS120B-E | 18 pF | Fundamental | 48.000000 | ATS480B | ATS480B-E | 18 pF | 3rd Overtone |
| 12.000000 | ATS120C | ATS120C-E | 32 pF | Fundamental | 60.000000 | ATS600A | ATS600A-E | 20 pF | 3rd Overtone |
| 12.288000 | ATS125 | ATS125-E | Series | Fundamental | 60.000000 | ATS600B | ATS600B-E | 18 pF | 3rd Overtone |
| 12.288000 | ATS122 | ATS122-E | 20 pF | Fundamental | 64.000000 | ATS640A | ATS640A-E | 20 pF | 3rd Overtone |
| 12.288000 | ATS122B | ATS122B-E | 18 pF | Fundamental | 64.000000 | ATS640B | ATS640B-E | 18 pF | 3rd Overtone |
| 12.296000 | ATS124 | ATS124-E | Series | Fundamental | | | | | |
| 12.296000 | ATS123 | ATS123-E | 20 pF | Fundamental | | | | | |
| 12.296000 | ATS123B | ATS123B-E | 18 pF | Fundamental | | | | | |

STANDARD PRODUCT PART NUMBERS - ATS-SM

Part numbers in **BOLD** are common stock items through CTS authorized distributors. Non-bold part numbers may be stocked or are available for order.

| FREQUENCY (MHz) | PART NUMBER -20/70°C | PART NUMBER -40/85°C | LOAD CAPACITANCE | OPERATING MODE | FREQUENCY (MHz) | PART NUMBER -20/70°C | PART NUMBER -40/85°C | LOAD CAPACITANCE | OPERATING MODE |
|-----------------|-------------------------|-------------------------|------------------|----------------|-----------------|-------------------------|-------------------------|------------------|----------------|
| 3.579545 | ATS036BSM-1 | ATS036BSM-1E | Series | Fundamental | 14.318180 | ATS143SM-1 | ATS143SM-1E | Series | Fundamental |
| 3.579545 | ATS036SM-1 | ATS036SM-1E | 18 pF | Fundamental | 14.318180 | ATS144SM-1 | ATS144SM-1E | 20 pF | Fundamental |
| 3.686400 | ATS037ASM-1 | ATS037ASM-1E | Series | Fundamental | 14.318180 | ATS143BSM-1 | ATS143BSM-1E | 18 pF | Fundamental |
| 3.686400 | ATS037SM-1 | ATS037SM-1E | 20 pF | Fundamental | 14.745600 | ATS147SM-1 | ATS147SM-1E | Series | Fundamental |
| 3.686400 | ATS037BSM-1 | ATS037BSM-1E | 18 pF | Fundamental | 14.745600 | ATS147ASM-1 | ATS147ASM-1E | 20 pF | Fundamental |
| 4.000000 | ATS04ASM-1 | ATS04ASM-1E | Series | Fundamental | 14.745600 | ATS147BSM-1 | ATS147BSM-1E | 18 pF | Fundamental |
| 4.000000 | ATS04OSM-1 | ATS04OSM-1E | 20 pF | Fundamental | 15.000000 | ATS150SM-1 | ATS150SM-1E | Series | Fundamental |
| 4.000000 | ATS04OBSM-1 | ATS04OBSM-1E | 18 pF | Fundamental | 15.000000 | ATS150BSM-1 | ATS150BSM-1E | 18 pF | Fundamental |
| 4.096000 | ATS042ASM-1 | ATS042ASM-1E | 20 pF | Fundamental | 15.360000 | ATS15ASM-1 | ATS15ASM-1E | 20 pF | Fundamental |
| 4.096000 | ATS042BSM-1 | ATS042BSM-1E | 18 pF | Fundamental | 16.000000 | ATS16OSM-1 | ATS16OSM-1E | Series | Fundamental |
| 4.194304 | ATS041BSM-1 | ATS041BSM-1E | 18 pF | Fundamental | 16.000000 | ATS16ASM-1 | ATS16ASM-1E | 20 pF | Fundamental |
| 4.194304 | ATS041CSM-1 | ATS041CSM-1E | 12 pF | Fundamental | 16.000000 | ATS16BSM-1 | ATS16BSM-1E | 18 pF | Fundamental |
| 4.915200 | ATS049ASM-1 | ATS049ASM-1E | Series | Fundamental | 16.384000 | ATS164BSM-1 | ATS164BSM-1E | 18 pF | Fundamental |
| 4.915200 | ATS042SM-1 | ATS042SM-1E | 20 pF | Fundamental | 16.934400 | ATS169SM-1 | ATS169SM-1E | 20 pF | Fundamental |
| 4.915200 | ATS049BSM-1 | ATS049BSM-1E | 18 pF | Fundamental | 18.432000 | ATS184SM-1 | ATS184SM-1E | Series | Fundamental |
| 5.000000 | ATS050CSM-1 | ATS050CSM-1E | Series | Fundamental | 18.432000 | ATS18ASM-1 | ATS18ASM-1E | 20 pF | Fundamental |
| 5.000000 | ATS050ASM-1 | ATS050ASM-1E | 20 pF | Fundamental | 18.432000 | ATS184BSM-1 | ATS184BSM-1E | 18 pF | Fundamental |
| 5.000000 | ATS050BSM-1 | ATS050BSM-1E | 18 pF | Fundamental | 19.660800 | ATS196SM-1 | ATS196SM-1E | Series | Fundamental |
| 5.068800 | ATS051SM-1 | ATS051SM-1E | Series | Fundamental | 19.660800 | ATS19ASM-1 | ATS19ASM-1E | 20 pF | Fundamental |
| 5.068800 | ATS050SM-1 | ATS050SM-1E | 20 pF | Fundamental | 19.660800 | ATS196BSM-1 | ATS196BSM-1E | 18 pF | Fundamental |
| 6.000000 | ATS060ASM-1 | ATS060ASM-1E | Series | Fundamental | 20.000000 | ATS200SM-1 | ATS200SM-1E | Series | Fundamental |
| 6.000000 | ATS060SM-1 | ATS060SM-1E | 20 pF | Fundamental | 20.000000 | ATS20ASM-1 | ATS20ASM-1E | 20 pF | Fundamental |
| 6.000000 | ATS060BSM-1 | ATS060BSM-1E | 18 pF | Fundamental | 20.000000 | ATS200CSM-1 | ATS200CSM-1E | 18 pF | Fundamental |
| 6.000000 | ATS060CSM-1 | ATS060CSM-1E | 32 pF | Fundamental | 20.000000 | ATS20BSM-1 | ATS20BSM-1E | 50 pF | Fundamental |
| 6.144000 | ATS061SM-1 | ATS061SM-1E | 20 pF | Fundamental | 20.480000 | ATS204SM-1 | ATS204SM-1E | 20 pF | Fundamental |
| 6.144000 | ATS061BSM-1 | ATS061BSM-1E | 18 pF | Fundamental | 22.118400 | ATS22ASM-1 | ATS22ASM-1E | 20 pF | Fundamental |
| 6.144000 | ATS061CSM-1 | ATS061CSM-1E | 32 pF | Fundamental | 22.118400 | ATS221BSM-1 | ATS221BSM-1E | 18 pF | Fundamental |
| 7.372800 | ATS073ASM-1 | ATS073ASM-1E | Series | Fundamental | 22.579200 | ATS225BSM-1 | ATS225BSM-1E | 18 pF | Fundamental |
| 7.372800 | ATS073SM-1 | ATS073SM-1E | 20 pF | Fundamental | 24.000000 | ATS240SM-1 | ATS240SM-1E | Series | Fundamental |
| 7.372800 | ATS073BSM-1 | ATS073BSM-1E | 18 pF | Fundamental | 24.000000 | ATS24ASM-1 | ATS24ASM-1E | 20 pF | Fundamental |
| 8.000000 | ATS080SM-1 | ATS080SM-1E | Series | Fundamental | 24.000000 | ATS240BSM-1 | ATS240BSM-1E | 18 pF | Fundamental |
| 8.000000 | ATS08ASM-1 | ATS08ASM-1E | 20 pF | Fundamental | 24.000000 | ATS240CSM-1 | ATS240CSM-1E | 12 pF | Fundamental |
| 8.000000 | ATS080BSM-1 | ATS080BSM-1E | 18 pF | Fundamental | 24.576000 | ATS245SM-1 | ATS245SM-1E | Series | Fundamental |
| 8.000000 | ATS080CSM-1 | ATS080CSM-1E | 32 pF | Fundamental | 24.576000 | ATS24BSM-1 | ATS24BSM-1E | 20 pF | Fundamental |
| 8.192000 | ATS081BSM-1 | ATS081BSM-1E | 18 pF | Fundamental | 24.576000 | ATS245ASM-1 | ATS245ASM-1E | 18 pF | Fundamental |
| 9.830400 | ATS099SM-1 | ATS099SM-1E | Series | Fundamental | 25.000000 | ATS250SM-1 | ATS250SM-1E | Series | Fundamental |
| 9.830400 | ATS098SM-1 | ATS098SM-1E | 20 pF | Fundamental | 25.000000 | ATS25ASM-1 | ATS25ASM-1E | 20 pF | Fundamental |
| 9.830400 | ATS098BSM-1 | ATS098BSM-1E | 18 pF | Fundamental | 25.000000 | ATS250BSM-1 | ATS250BSM-1E | 18 pF | Fundamental |
| 10.000000 | ATS100SM-1 | ATS100SM-1E | Series | Fundamental | 26.000000 | ATS260ASM-1 | ATS260ASM-1E | 20 pF | Fundamental |
| 10.000000 | ATS10ASM-1 | ATS10ASM-1E | 20 pF | Fundamental | 26.000000 | ATS260BSM-1 | ATS260BSM-1E | 18 pF | Fundamental |
| 10.000000 | ATS100BSM-1 | ATS100BSM-1E | 18 pF | Fundamental | 27.000000 | ATS270ASM-1 | ATS270ASM-1E | 20 pF | Fundamental |
| 11.059200 | ATS111ASM-1 | ATS111ASM-1E | Series | Fundamental | 27.000000 | ATS270BSM-1 | ATS270BSM-1E | 18 pF | Fundamental |
| 11.059200 | ATS111SM-1 | ATS111SM-1E | 20 pF | Fundamental | 28.636360 | ATS286ASM-1 | ATS286ASM-1E | 20 pF | Fundamental |
| 11.059200 | ATS111BSM-1 | ATS111BSM-1E | 18 pF | Fundamental | 30.000000 | ATS300ASM-1 | ATS300ASM-1E | 20 pF | Fundamental |
| 11.059200 | ATS111CSM-1 | ATS111CSM-1E | 32 pF | Fundamental | 30.000000 | ATS300BSM-1 | ATS300BSM-1E | 18 pF | Fundamental |
| 12.000000 | ATS120SM-1 | ATS120SM-1E | Series | Fundamental | 32.000000 | ATS320SM-1 | ATS320SM-1E | Series | 3rd Overtone |
| 12.000000 | ATS12ASM-1 | ATS12ASM-1E | 20 pF | Fundamental | 32.000000 | ATS32ASM-1 | ATS32ASM-1E | 20 pF | 3rd Overtone |
| 12.000000 | ATS120BSM-1 | ATS120BSM-1E | 18 pF | Fundamental | 32.000000 | ATS320BSM-1 | ATS320BSM-1E | 18 pF | 3rd Overtone |
| 12.000000 | ATS120CSM-1 | ATS120CSM-1E | 32 pF | Fundamental | 33.000000 | ATS330ASM-1 | ATS330ASM-1E | 20 pF | 3rd Overtone |
| 12.288000 | ATS125SM-1 | ATS125SM-1E | Series | Fundamental | 33.000000 | ATS330BSM-1 | ATS330BSM-1E | 18 pF | 3rd Overtone |
| 12.288000 | ATS122SM-1 | ATS122SM-1E | 20 pF | Fundamental | 36.000000 | ATS360ASM-1 | ATS360ASM-1E | 20 pF | 3rd Overtone |
| 12.288000 | ATS122BSM-1 | ATS122BSM-1E | 18 pF | Fundamental | 36.000000 | ATS360BSM-1 | ATS360BSM-1E | 18 pF | 3rd Overtone |
| 12.296000 | ATS123SM-1 | ATS123SM-1E | Series | Fundamental | 40.000000 | ATS400SM-1 | ATS400SM-1E | Series | 3rd Overtone |
| 12.296000 | ATS124SM-1 | ATS124SM-1E | 20 pF | Fundamental | 40.000000 | ATS40ASM-1 | ATS40ASM-1E | 20 pF | 3rd Overtone |
| 12.352000 | ATS127SM-1 | ATS127SM-1E | Series | Fundamental | 40.000000 | ATS400BSM-1 | ATS400BSM-1E | 18 pF | 3rd Overtone |
| 12.352000 | ATS126SM-1 | ATS126SM-1E | 20 pF | Fundamental | 48.000000 | ATS480ASM-1 | ATS480ASM-1E | 20 pF | 3rd Overtone |
| 12.500000 | ATS125BSM-1 | ATS125BSM-1E | 18 pF | Fundamental | 48.000000 | ATS480BSM-1 | ATS480BSM-1E | 18 pF | 3rd Overtone |
| 13.000000 | ATS130SM-1 | ATS130SM-1E | 20 pF | Fundamental | 60.000000 | ATS600ASM-1 | ATS600ASM-1E | 20 pF | 3rd Overtone |
| 13.500000 | ATS135SM-1 | ATS135SM-1E | 20 pF | Fundamental | 60.000000 | ATS600BSM-1 | ATS600BSM-1E | 18 pF | 3rd Overtone |
| 13.500000 | ATS135BSM-1 | ATS135BSM-1E | 18 pF | Fundamental | 64.000000 | ATS640ASM-1 | ATS640ASM-1E | 20 pF | 3rd Overtone |
| 14.000000 | ATS140BSM-1 | ATS140BSM-1E | 18 pF | Fundamental | 64.000000 | ATS640BSM-1 | ATS640BSM-1E | 18 pF | 3rd Overtone |

ELECTRICAL CHARACTERISTICS

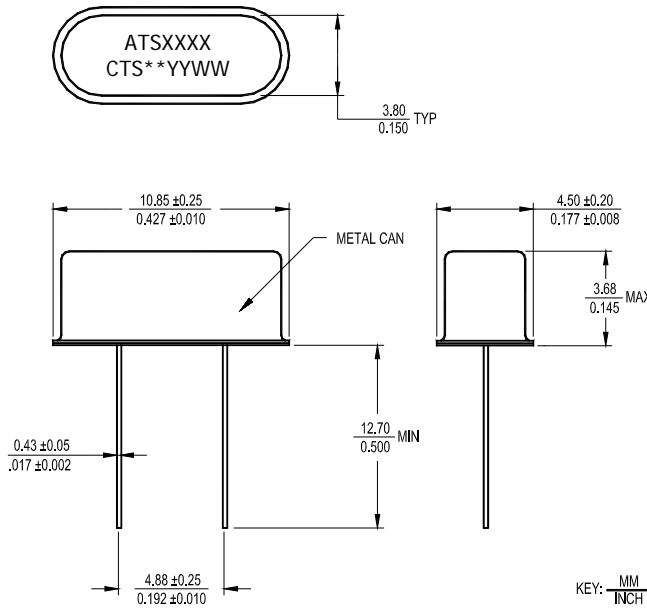
| | PARAMETER | VALUE |
|---------------------------------------|--|--|
| ELECTRICAL PARAMETERS | Frequency Range | 3.2 MHz to 64.0 MHz |
| | Operating Mode | Fundamental or 3rd Overtone |
| | Crystal Cut | AT-Cut |
| | Frequency Tolerance @ +25°C | ± 30 ppm Standard * |
| | Frequency Stability Tolerance (Operating Temperature Range, Referenced to 25°C Reading) | ± 50 ppm Standard * |
| | Operating Temperature Range | -20°C to +70°C * -40°C to +85°C Available, See Ordering Information |
| | Equivalent Series Resistance | See ESR Table |
| | Load Capacitance or Resonance Mode | See Standard Part Numbers tables * |
| | Shunt Capacitance (C ₀) | 7.0 pF Maximum |
| | Drive Level | 100 µW Typical, 1,000 µW Maximum |
| | Aging @ +25°C | ±3 ppm/yr Typical, ±5 ppm/yr Maximum |
| | Insulation Resistance | 500 Ohms @ DC 100V |
| | Storage Temperature Range | -40°C to +85°C |
| Reflow Condition, per JEDEC J-STD-020 | +260°C Maximum, 10 Seconds Maximum | |

* Custom requirements may be available upon request.

EQUIVALENT SERIES RESISTANCE TABLE

| FREQUENCY RANGE | OSCILLATION MODE | ESR MAXIMUM |
|-------------------------|------------------|-------------|
| 3.20 MHz - < 4.00 MHz | Fundamental | 150 Ohms |
| 4.00 MHz - < 5.00 MHz | Fundamental | 120 Ohms |
| 5.00 MHz - < 8.00 MHz | Fundamental | 80 Ohms |
| 8.00 MHz - < 12.00 MHz | Fundamental | 60 Ohms |
| 12.00 MHz - < 20.00 MHz | Fundamental | 40 Ohms |
| 20.00 MHz - < 30.00 MHz | Fundamental | 30 Ohms |
| 27.00 MHz - 64.00 MHz | 3rd Overtone | 80 Ohms |

ATS PACKAGE DRAWING



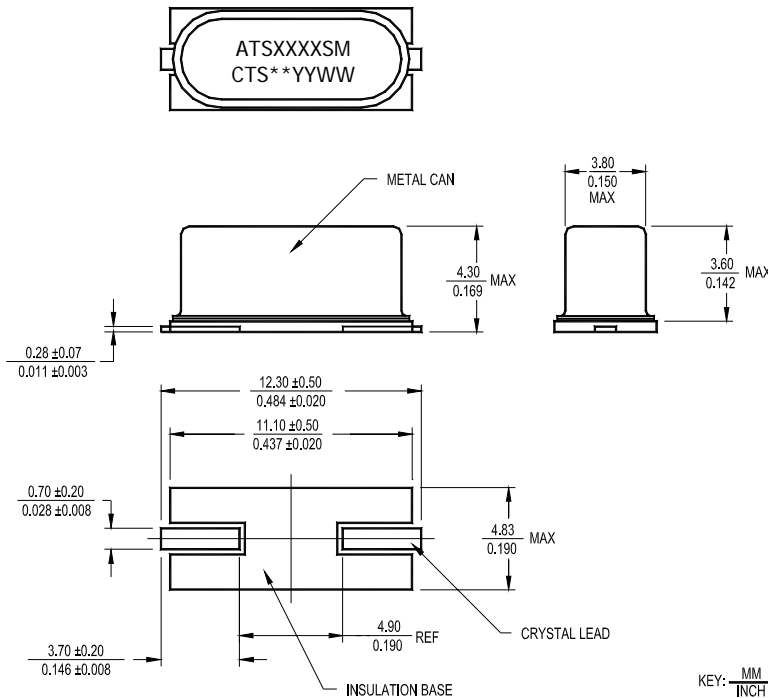
MARKING INFORMATION

1. ATXXXXX - 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.

ATS-SM PACKAGE DRAWING



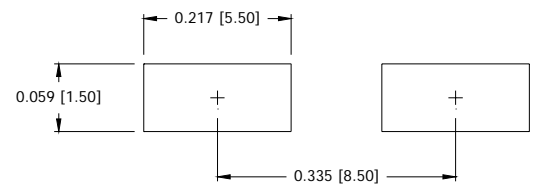
MARKING INFORMATION

1. ATXXXXXSM - 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.

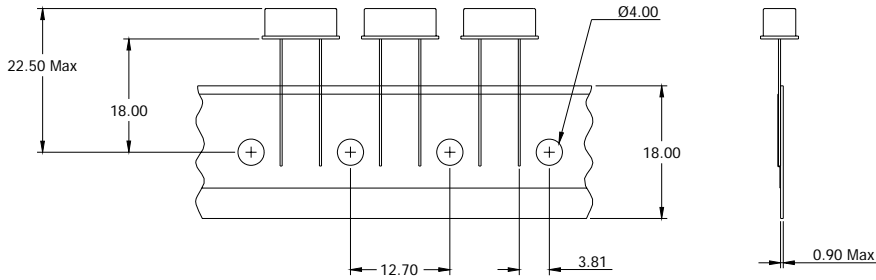
SUGGESTED SOLDER PAD GEOMETRY



PACKAGING INFORMATION

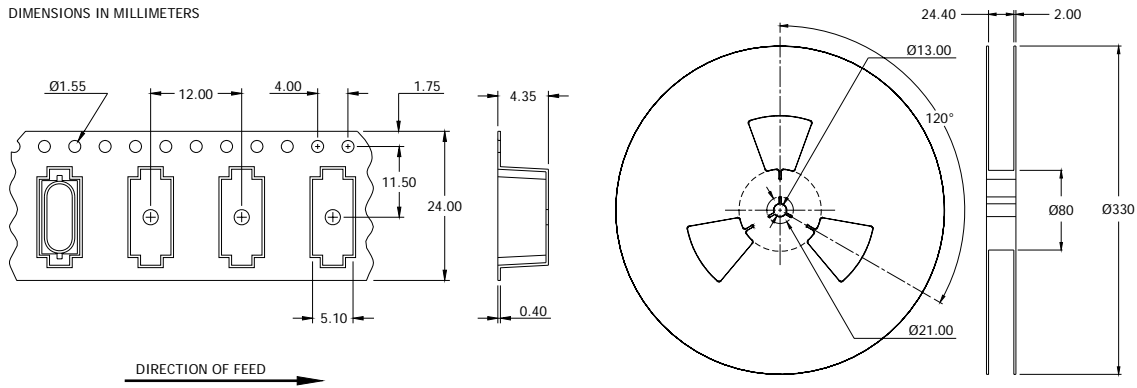
ATS Radial Taping (Ammopak)

DIMENSIONS IN MILLIMETERS



ATS-SM Tape and Reel

DIMENSIONS IN MILLIMETERS





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.