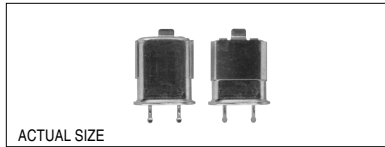
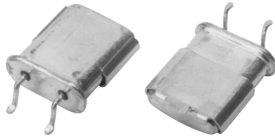


Miniature Quartz Crystal

Technical Data

45 SMT Series



Description

The 45 Series SMT consists of a silver-plated AT-cut quartz crystal plate, encapsulated in a nitrogen-filled metal holder. The holder is hermetically sealed by resistance welding. The device has a very high mechanical stability, small dimensions and rugged construction.

Applications

- Microprocessors
- Traffic Control
- Weather Ballons
- Medical systems
- Military applications
- Communications systems
- Agrarian applications
- Machine control
- Environmental applications

ESR & Mode Table

Freq. MHz	Max ESR:Ω Fund	Max ESR:Ω 3rd OT	Max ESR:Ω 5th OT
6	100		
10	55		
15	30		
20	25		
24	25	125	
30	25	90	
50		55	
60		50	125
80		50	110
90		50	100
100			95
120			90
150			90

Frequency Range: 8 MHz to 150 MHz

Temperature Range:

Operating: -40 to +130°C
Storage: -55 to +155°C

Temperature Stability Tolerance: ±10, ±15 and ±20 ppm from -20 to +70°C

Characteristics at 25°C ±2°C:

Frequency Calibration Tolerance: ±10 ppm, ±20 ppm
Load Capacitance: 5pF to series resonance
Effective Series Resistance: 5 to 125 ohms (frequency and overtone dependent), see ESR & Mode table
Drive Level: 0.1mW correlation, 2.0mW max operating
Shunt Capacitance: 7pF max

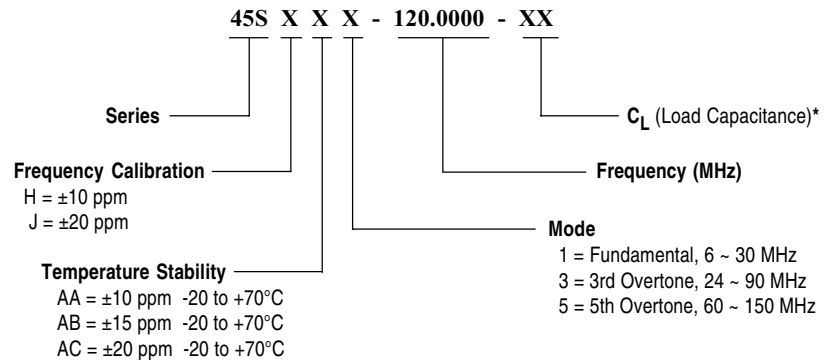
Mechanical:

Shock: MIL-STD-883, Method 2002, Condition B
Solderability: MIL-STD-883, Method 2003
Terminal Strength: MIL-STD-202, Method 211, Conditions A and C
Vibration: MIL-STD-883, Method 2007, Condition A
Solvent Resistance: MIL-STD-202, Method 215
Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition B

Environmental:

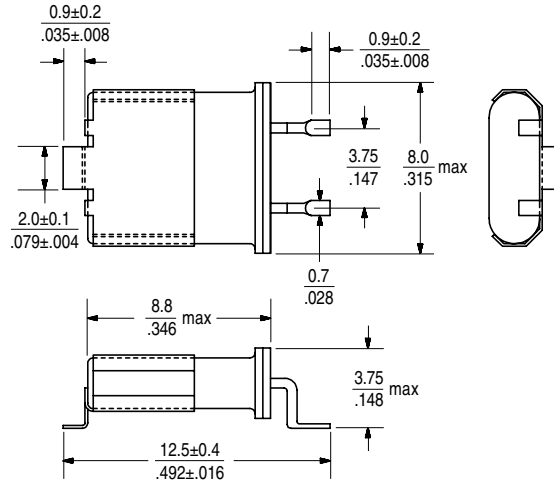
Gross Leak Test: MIL-STD-883, Method 1014, Condition C
Fine Leak Test: MIL-STD-883, Method 1014, Condition A <5 x 10⁻⁸ ATM cc/sec
Thermal Shock: MIL-STD-883, Method 1011, Condition A
Moisture Resistance: MIL-STD-883, Method 1004

Part Numbering Guide

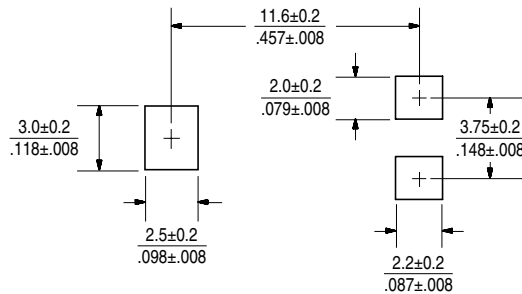


*If no C_L value specified, crystal is calibrated for series resonance.
If C_L value specified, crystal is calibrated for parallel resonance.

Package Details



Recommended Land Pattern



Scale: None (Dimensions in $\frac{\text{mm}}{\text{inches}}$)

All specifications are subject to change without notice.