

Quartz Crystal







Product Description

The GA series is an industry standard AT-cut crystal that is housed in Mil standard package.

Product Features

- AT-cut performance
- Resistance weld seal
- Low cost
- Versatile
- Pb-free and RoHS/Green compliant available

Typical Applications

- Set-Top Box/Multimedia
- Clock/VCXO Multiplier
- Network Adapter Cards
- Modems
- Microcontrollers and Processors
- Remote control devices

Frequency Range:

- 1.8432 to 27.0000 MHz (Fundamental)
- 27.0001 to 60.0000 MHz (3rd OT)

Characteristics at 25°C ±2°C:

- Frequency Calibration Tolerance (as specified): ±30ppm, ±50ppm
- Load Capacitance (as specified): 12 to 32pF or Series Resonance
- Effective Series Resistance:
 - 700Ω max (1.8432 to 3.199MHz)
 - 150Ω max (3.2 to 3.499MHz)
 - 120Ω max (3.5 to 3.999MHz)
 - 100Ω max (4 to 4.999MHz)
 - 50Ω max (5 to 6.000MHz)
 - 40Ω max (6 to 7.999MHz)
 - 35Ω max (8 to 9.999MHz)
 - 30Ω max (10 to 12.999MHz)
 - 25Ω max (13 to 17.999MHz)
 - 20Ω max (18 to 27.000MHz, AT Fund)
- 40Ω max (27 to 60MHz, AT (3rd overtone)
 Drive Level: 100μW correlation, (2000μW Max)
- Shunt Capacitance: 7pF Max.

Temperature Range:

- Operating: $-20 \text{ to } +70^{\circ}\text{C}$; $-40 \text{ to } +85^{\circ}\text{C}$ (as specified)
- Storage: -55 to +125°C

Temperature Stability (as specified):

- ± 30 ppm (-20 to +70°C)
- ± 50 or ± 100 ppm (-40 to +85°C)

Aging @ 25°C, first year:

• ± 3 ppm (typ), ± 5 ppm (max)

Reflow Temperature:

• 260°C Max, 10 sec max (RoHS package)

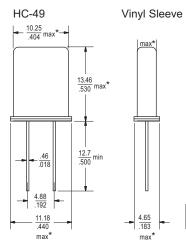




GA Series | Legacy HC49/U Series

Mechanical Drawings: HC-49

Package Details



New Part Number Example

 $\frac{\text{GA}}{\text{@}}$ $\frac{250}{\text{@}}$ $\frac{0001}{\text{©}}$ A = Product Family B = Frequency Code C = Specification Code

Note: After July 1, 2007, a Saronix - eCera part number following the above format will be assigned upon confirmation of exact customer requirements.

Scale: None (Dimension in mm/inches)

Mechanical:

Shock: JESD22-B104 Condition B

• Solderability: JESD22 method 1 (Predonditioning E) RoHS package

Terminal Strength: MIL-STD-883 Method 2004

Vibration: JESD22-B103

Solvent Resistance: JESD22-B107

• Resistance to Soldering Heat: JESD22-B106 (RoHS Package)

Environmental:

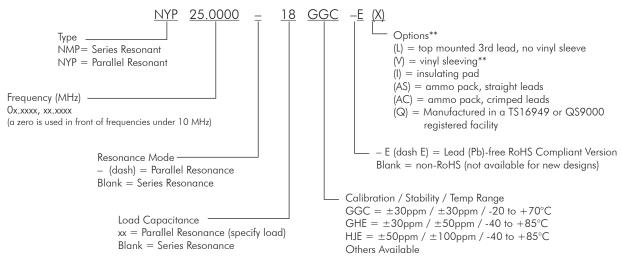
Gross Test Leak: JESD22-A109, Condition C

• Fine Test Leak: JESD22-A109, Condition A1

• Moisture Resistance: JESD22-A113

• Insulation Resistance: 500 MΩ min (100 VDC)

Legacy Ordering Information



^{**}Optional vinyl shrink sleeve may be specified, as needed

Part Number Example: Spec: Freq 5.1234 MHz, $\pm 30 ppm$ calib, $\pm 30 ppm$ stab, -20 to $+70 ^{\circ}C$, 16 pF

= NYP05.1234-16GGC

= NYP05.1234-16GGC-E (for lead-free)

