

## Quartz Crystal Metal Can (SMD)

**GC GF**



11.5 x 4.5 x 4.0mm SMD

### Product Features

- Standard: 4.0mm Max height GC Series
- Low profile: 3.0mm Max height GF Series
- Available on tape & reel, 24mm tape, 1000 units per reel
- Pb-free and RoHS/Green compliant.

### Product Description

The crystals are miniature AT or BT cut strip resonators housed in low profile packages for surface mounting. The parts utilize a proven, low-cost, metal package technology with a precision molded base and universal contact configuration.

### Applications

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

### Frequency Range:

- 3.2 to 36.000 MHz, AT Fundamental
- 30.0 to 125.000 MHz, AT 3rd Overtone
- 26.8 to 54.000 MHz, BT Fundamental

### Characteristics at 25°C ±2°C:

- Frequency Calibration Tolerance: ±30ppm
- Load Capacitance: 8 to 32pF or Series Resonance
- Effective Series Resistance (ESR):  
 Fundamental: 20 to 200Ω max depending on frequency  
 3rd Overtone: 60 to 80Ω max depending on frequency
- Drive Level: 100μW typ. (500μW Max)
- Shunt Capacitance: 7pF Max

### Temperature Range:

- Operating: -20 to +70°C or -40 to +85°C
- Storage: -55 to +125°C

### Temperature Stability:

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

### Aging @ 25°C, first year:

- ±3ppm Max

### Reflow Temperature:

- 260°C Max, 10 seconds Max (RoHS package)

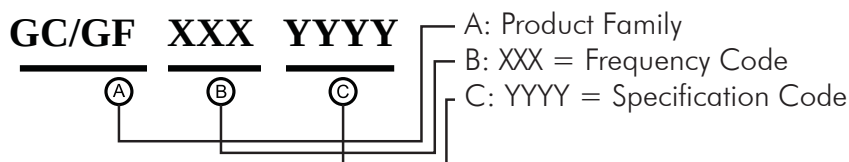
### Mechanical:

- Shock: JESD22-B104 Condition B
- Solderability: MIL-STD-883, Method 2003 (non-RoHS package)
- Solderability: J-STD-002( RoHS package )
- Terminal Strength: MIL-STD-883 Method 2004
- Vibration: JESD22-B103
- Solvent Resistance: JESD22-B107
- Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J (Non-RoHS package)
- Resistance to Soldering Heat: J-STD-020C Table 5-2 Pb-free devices (3 cycles max) (RoHS package)

### Environmental:

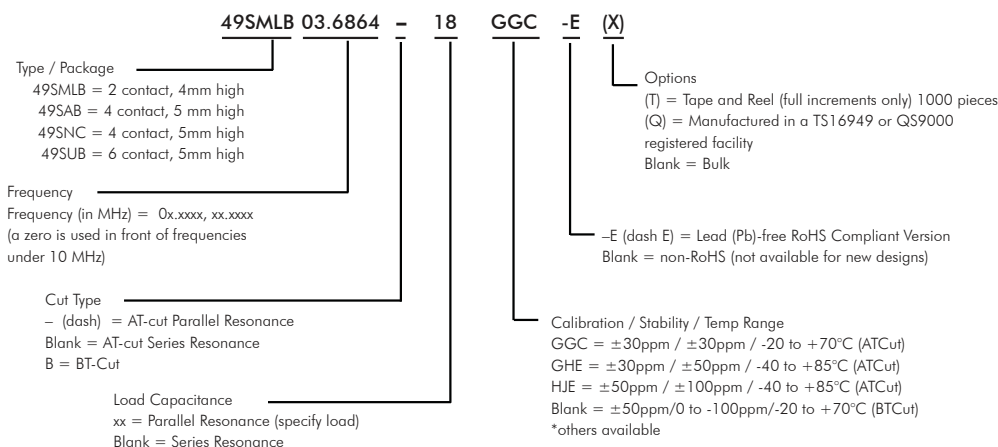
- Gross Test Leak: JESD22-A109, Condition C
- Fine Test Leak: JESD22-A109, Condition A1
- Moisture Resistance: JESD22-A113
- Insulation Resistance: 500 MΩ min (100 VDC)

### Part Ordering Information:



Following the above format, Saronix-eCera part numbers will be assigned upon confirmation of exact customer requirements.

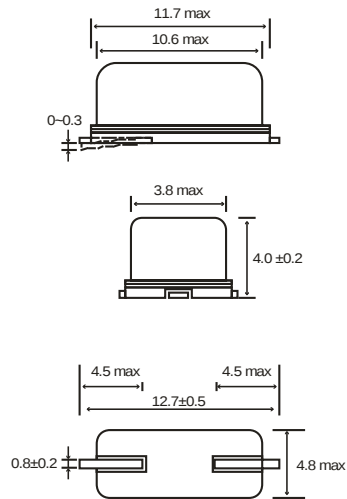
### Legacy Ordering Information - For Reference Only:



### Part Number Example:

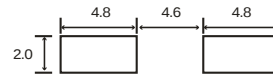
Freq 5.1234MHz,  $\pm 30\text{ppm}$  calib,  $\pm 30\text{ppm}$  stability,  $-20 \text{ to } +70^\circ\text{C}$ , 16pF  
= 49SMLB05.1234-16GGC  
= 49SMLB05.1234-16GGC-E (for Pb-Free/RoHS Compliant)

### Mechanical Drawings: GC Series



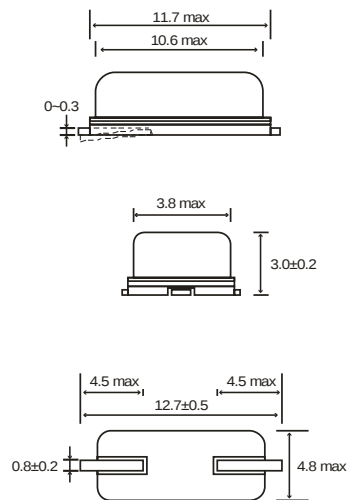
UNIT: mm

Recommended Land Pattern:



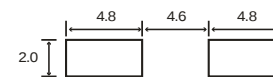
UNIT: mm

### Mechanical Drawings: GF Series (Low Profile)



UNIT: mm

Recommended Land Pattern:



UNIT: mm