

# **Quartz Crystal Metal Can (SMD)**





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  $200\Omega$  max depending on frequencey 3rd Overtone:  $60 \text{ to } 80\Omega$  max depending on frequency

- Drive Level:  $100\mu W$  typ.  $(500\mu W Max)$
- •Shunt Capacitance: 7pF Max

### **Temperature Range:**

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

### **Temperature Stability:**

- $\bullet$  ±30ppm (–20 to +70°C) AT Cut
- $\pm 50$  or  $\pm 100$ ppm (-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)

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**GC/GF Series Quartz Crystal Legacy 49SMLB Series** 

### **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)

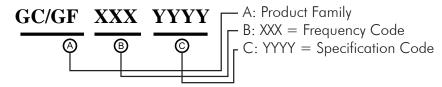
### **Environmental:**

• Gross Test Leak: JESD22-A109, Condition C • Fine Test Leak: JESD22-A109, Condition A1

Moisture Resistance: JESD22-A113

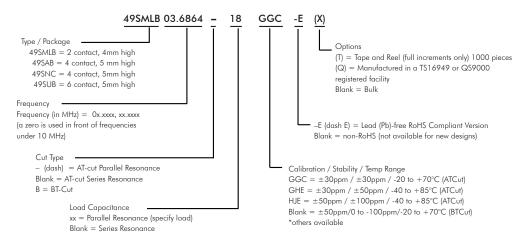
•Insulation Resistance: 500 MΩ min (100 VDC)

### **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,  $\pm 30ppm$  calib,  $\pm 30ppm$  stability, -20 to  $+70^{\circ}C$ , 16pF

= 49SMLB05.1234-16GGC

= 49SMLB05.1234-16GGC-E (for PB-Free/RoHS Compliant)

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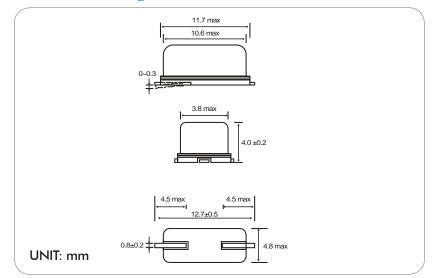


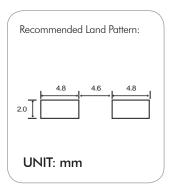
# Quartz Crystal Metal Can (SMD) GC



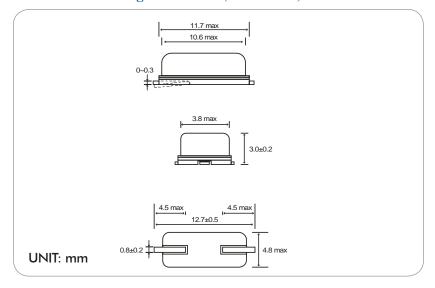
**GC/GF Series Quartz Crystal Legacy 49SMLB Series** 

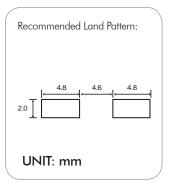
## **Mechanical Drawings: GC Series**





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







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