



QEHC49-GW

HC49 Gull Wing Crystal – SMD packaged
Specification (Rev-A)

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June 27th, 2006

Electrical Characteristics

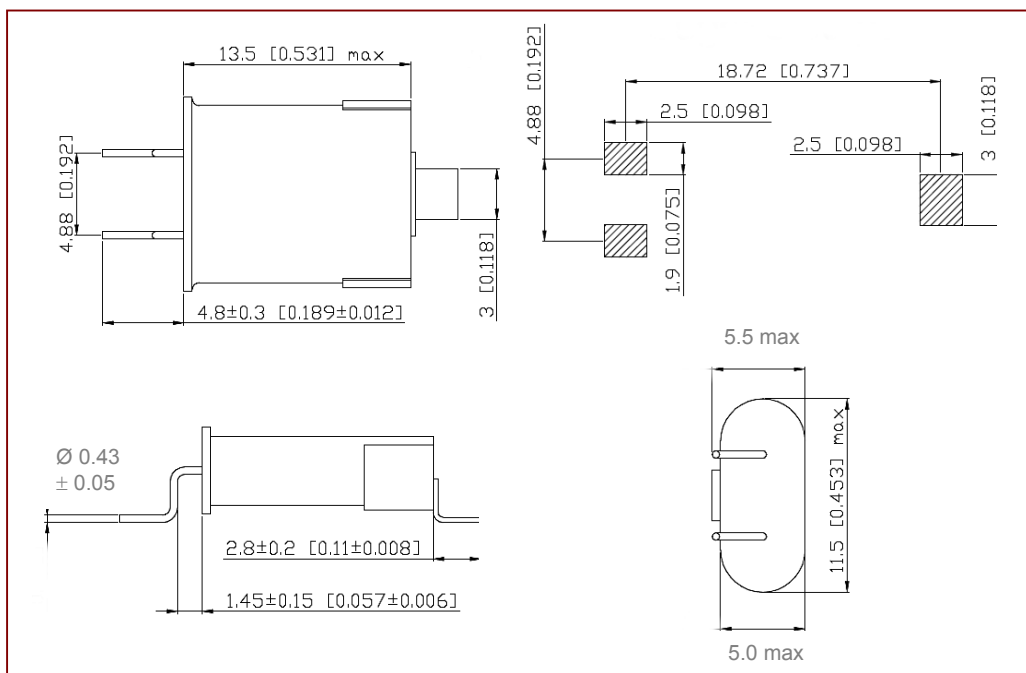
| Electrical Parameters | Unit | Minimum | Typical | Maximum | Test conditions |
|----------------------------------|-------|-----------------------|---------|---------|-------------------------------|
| Frequency range | MHz | 1.8432 | | 125 | |
| Frequency Tolerance (at 25°C) | ± ppm | 10 | 30 | 50 | Refer to Ordering Information |
| Temperature Stability | ± ppm | 10 | 30 | 50 | Refer to Ordering Information |
| Operating Temperature Range | °C | | -20/+70 | -40/+85 | Refer to Ordering Information |
| Storage temperature range | °C | -40 | | +85 | |
| Shunt capacitance C ₀ | pF | | | 7.0 | |
| Load capacitance | pF | 10pF ~ 32pF or series | | | Refer to Ordering Information |
| Drive level | µW | | 100 | 500 | |
| Aging (First Year) | ± ppm | | | 5 | Ref at 25°C |
| Insulator resistance | MΩ | 500 | | | At 100V _{DC} |

Customized specification upon request

ESR vs. frequency range and Mode of vibration

| Frequency range (MHz) | Mode of vibration | Max ESR (Ω) | Frequency range (MHz) | Mode of vibration | Max ESR (Ω) |
|-----------------------|-------------------|-------------|-----------------------|-------------------|-------------|
| 1.8432 to 1.999 | Fund. | 650 | 6.000 to 7.9999 | Fund. | 50 |
| 2.000 to 2.999 | Fund. | 500 | 8.000 to 12.999 | Fund. | 35 |
| 3.000 to 3.499 | Fund. | 250 | 13.00 to 35.000 | Fund. | 25 |
| 3.500 to 3.999 | Fund. | 150 | 24.00 to 29.999 | 3rd | 60 |
| 4.000 to 4.999 | Fund. | 100 | 30.00 to 79.999 | 3rd | 40 |
| 5.000 to 5.999 | Fund. | 80 | 80.000 to 125.000 | 5th | 90 |

Mechanical Characteristics



| Marking for QEHC49-GW | |
|-----------------------|-----------------------------|
| Line 1 | VRSxxx (Temex code) |
| Line 2 | Frequency in MHz (6 digits) |
| Line 3 | YYWW – production code |

| Mechanical conditions | |
|-----------------------|---|
| Vibration | 10g, 10Hz to 2KHz according to standard CEI 68-2-63 |
| Shocks | 100g, 6ms according to standard CEI 68-2-27 |

Note 1 : QEHC49-GW is fully RoHS compliant.

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Ordering Information

| Part numbering system | | | | | | |
|---|--|-------------------------------------|---|-------------------------------------|--|------------------------------------|
| QEHC49-GW | 1 | 30 | HQ | 50 | 16 | 25.000MHZ |
| Package type | Vibration mode | Frequency tolerance | Operating temperature range | Frequency stability | Load Capacitance | Nominal Frequency (MHz) |
| SMD Package QEHC49-GW : HC49U Gull Wing | 1 = Fundamental 3 = 3 rd Overtone 5 = 5 th Overone | 10=±10ppm 30=±30ppm 50=±30ppm | D=-40°C F= -30°C H=-20°C J=-10°C L=0°C M=+50°C N=+55°C O=+60°C Q=+70°C T=+85°C | 10=±10ppm 30=±20ppm 50=±30ppm | 10=10pF Please, enter the value of load capacitance | Please enter the nominal frequency |

Suggested Reflow Soldering Profile

