

Crystals in QRT-38 cases

General application

Computer clocks, Video and Audio equipments

Features

The 38C is a cylinder-shaped compact most suitable for high-density mounting.

*The 38CHT is a heat-resistant crystal unit.

Most suitable for pagers and card products like PCMCIA application



Typical specifications

| Type | QRT-38 |
|-----------------------------|-------------------------------|
| Nominal frequency | 32.000 - 100.000 kHz |
| Frequency tolerance | ± 50 ppm, ± 100 ppm |
| Temperature coefficient | -0.04 ppm/°C max ² |
| Series resistance | see table 2 |
| Motional capacitance | 3.0 fF max. |
| Shunt capacitance | 1.5 pF max. |
| Insulation resistance | 500 MΩ min. |
| Aging | ± 5 ppm/year max. |
| Load capacitance | > 6 pF |
| Operating temperature range | -10 ... +60 °C |
| Storage temperature range | -20 ... +70 °C |
| Recommended drive level | 0.1 μW |
| Maximum drive level | 1.0 μW max. |

Differences from standard values and other parameters can be consulted.

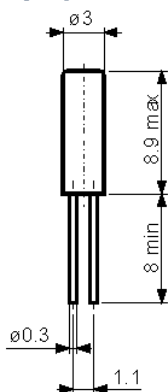
Examples of standard frequencies and load capacity (table 1)

| Type | Frequency | C _L |
|--------|-------------|--------------------------|
| QRT-38 | 26.6667 kHz | 10.0 pF, 11.0 pF |
| | 32.5600 kHz | 7.0 pF |
| | 36.8640 kHz | 13.5 pF |
| | 38.4000 kHz | 10.0 pF |
| | 44.7340 kHz | 10.0 pF |
| | 49.0000 kHz | 15.0 pF |
| | 75.0000 kHz | 6.5 pF, 9.0 pF, 20.0 pF |
| | 77.5030 kHz | 10.0 pF, 20.0 pF |
| | 76.8000 kHz | 6.0 pF, 10.0 pF, 11.0 pF |
| | 96.0000 kHz | 6.0 pF, 8.4 pF, 11.0 pF |

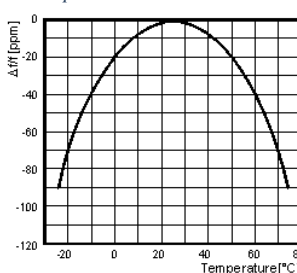
Equivalent series resistance (ESR_{max}) (table 2)

| ESR _{max} | Frequency [kHz] | | | | |
|--------------------|-----------------|-------|-------|-------|-----|
| | 33 | 40 | 60 | 70 | 100 |
| | 55 kΩ | 30 kΩ | 25 kΩ | 22 kΩ | |

Outline dimensions [mm]



The courses of frequency changes depending on temperature



load capacitance

