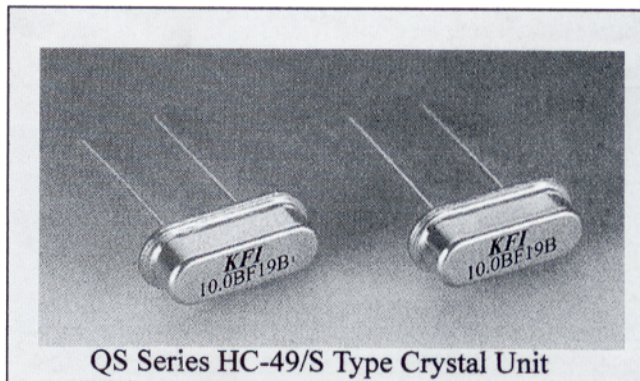


# KFI QS Series Quartz Crystal Units

## HC-49/S Resistance Welded Type

### Features

- Small size with only 3.86 mm height
- Completely sealed with resistance welded package
- Good frequency stability and high reliability
- Best for densely populated PCBs with limited component space.



QS Series HC-49/S Type Crystal Unit

### Specifications

Frequency Range	3.200 MHz-70.000 MHz
Frequency Tolerance @25 °C	+/- 30ppm (typical) or specify
Aging @25 °C	+/- 5ppm / year maximum
Frequency Stability over Operating Temperature Range	+/- 30ppm (typical) or specify
Operation Temperature Range	-10 °C to +60 °C (typical) -20 °C to +70 °C, -40 °C to +85 °C, or specify
Storage Temperature Range	-40 °C to +85 °C
Shunt Capacitance	7 pF maximum
Load Capacitance	Series, 16 pF, 20 pF, 30 pF, 32 pF or specify
Drive Level	100uW maximum
Insulation Resistance	500 MΩ minimum at 100VDC
Package	Resistance welded HC-49/S

## Equivalent Series Resistance (ESR) and Mode of Operation

Frequency Range	ESR (Ω)	Mode
3.200MHz ~5.999MHz	90 Max.	Fundamental / AT
6.000MHz ~7.999MHz	50 Max.	Fundamental / AT
8.000MHz ~15.999MHz	40 Max.	Fundamental / AT
16.000MHz ~30.000MHz	20 Max.	Fundamental / AT
24.000MHz ~40.320MHz	40 Max.	Fundamental / BT
24.000MHz ~29.999MHz	150 Max.	3 <sup>rd</sup> Overtone / AT
30.000MHz ~49.999MHz	100 Max.	3 <sup>rd</sup> Overtone / AT
50.000MHz ~70.000MHz	80 Max.	3 <sup>rd</sup> Overtone / AT

Remark: Specifications subject to change without prior notice.  
Please confirm with our sales engineer.

### Dimensions

