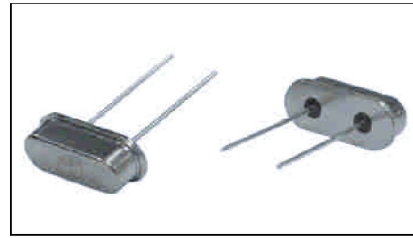


# QUARTZ CRYSTAL

## SERIES 6B, RESISTANCE WELDED HC-49/S LOW PROFILE PACKAG

### FEATURE

- Standard height 3.5mm, the part is compact at about one-fourth of the HC-49/U package
- A resistance weld completely sealed type
- Good stability and high reliability
- Copes with high density mounting and is the optimum for mass production



### ELECTRICAL SPECIFICATIONS

| Nominal frequency            | 3.000MHz to 100MHz   |
|------------------------------|--|
| Oscillation mode             | See below table  |
| Operating temperature range  | -20°C-+70°C (Typical), -10°C ~ +60°C, -40°C ~+85°C, or specify |
| Storage temperature range    | -40°C-+85°C  |
| Frequency tolerance          | + 20PPM at 25±2°C (Typical), or specify                        |
| Freq. Temp characteristics   | + 50PPM -20°C-+70°C (Typical), or specify                      |
| Load capacitance             | Series, 16pF, 20pF, 30pF, or specify                           |
| Equivalent series resistance | See below table  |
| Parallel capacitance(Co)     | 7PF Max  |
| Drive level                  | 100 uW   |
| Insulation resistance        | More than 500M Ω AT DC100V                                     |

### EQUIVALENT SERIES RESISTANCE(ESR) AND OSCILLATION MODE

| Frequency Range      | E .S.R.<br>Ω | Mode           | Frequency Range      | E.S.R.<br>Ω | Mode               |
|----------------------|--------------|----------------|----------------------|-------------|--------------------|
| 3.000MHz~5.999MHz    | 150Max       | Fundamental/AT | 24.000MHz~40.320MHz  | 30Max       | Fundamental/AT     |
| 6.000MHz~7.999MHz    | 60Max        | Fundamental/AT | 24.000MHz~29.999MHz  | 100Max      | Third Overtone /AT |
| 8.000MHz~15.999M Hz  | 50Max        | Fundamental/AT | 30.000MHz~49.999MHz  | 80Max       | Third Overtone /AT |
| 16.000MHz~30.000M Hz | 30Max        | Fundamental/AT | 50.000MHz~100.000MHz | 60Max       | Third Overtone /AT |

### Mechanical characteristics

|                          |  |
|--------------------------|--|
| Resistance to shock:     | + 3PPM Max ±3Ω Max, Naturally drop it 3 times on a hard wood plate from 100cm height |
| Resistance to vibration: | + 3PPM Max ±3Ω Max   |

# QUARTZ CRYSTAL

SERIES 6B, RESISTANCE WELDED

## Reliability

|                           |  |
|---------------------------|--|
| Aging                     | + 3PPM Max/Year  |
| Air tightness             |  |
| (1) Gross leak            | should be immersed in hot water(90±5°C) for 5 minutes                    |
| (2) Fine leak             | should be less than $5 \times 10^{-8}$ atmcc/sec by helium leak detector |
| Low drive characteristics | Measured $\Delta$ 1,C1,3 point at 1.0,,10,100uW                          |

## Dimension

