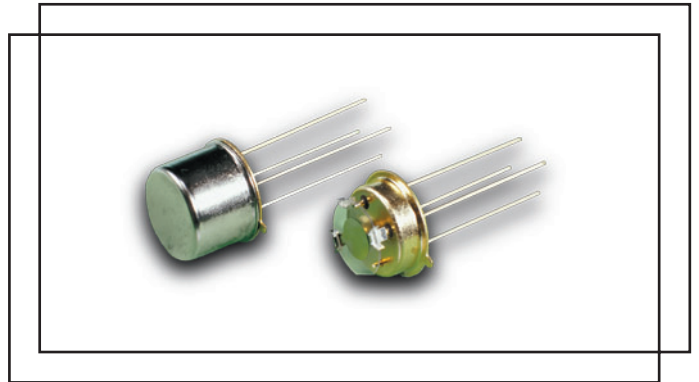


HC-35/U precision crystal cold weld enclosure (5.0 ~ 200)MHz

- # very high shock and vibration
- # precision AT cut
- # low ageing rate



Electrical specification

Case style
Frequency range
Adjustment tolerance
Temperature tolerance
Operating temperature
Storage temperature
Load
Shunt capacitance C_0
Drive level
Q factor
Ageing
Insulation resistance

HC-35/U cold weld
 (5.0 ~ 200)MHz, fundamental to 9th overtone
 from ± 5 ppm at $+25^\circ\text{C}$, frequency dependent
 from ± 3 ppm, frequency and temperature range dependent
 $(-10 +60)^\circ\text{C} \sim (-55 +105)^\circ\text{C}$
 $(-55+125)^\circ\text{C}$
 customer specified
 5.0pF max.
 0.5 milli.W typical
 100,000 typical
 ± 1 ppm first year max.
 500Meg. ohm min. at 100Vd.c.

Ordering information

The HC-35/U glass crystal may be specified within its available frequency range together with load capacitance, adjustment tolerance, temperature tolerance and temperature range with each parameter coded as follows

Example HC-35/U crystal, 100.00MHz, load series, ± 10 ppm at $+25^\circ\text{C}$, ± 5 ppm $(-10 +60)^\circ\text{C}$

TFC PART NUMBER X35U 100.00M S B A I

'X35U' crystal holder: X35U = HC-35/U

'100.00M' frequency: 100.00M = 100.00MHz, frequency range from (3.0 ~ 200)MHz

'S' load capacitance: S = series

'B' adjustment tolerance at $+25^\circ\text{C}$: B = ± 10 ppm

'A' temperature tolerance: A = ± 5 ppm

'I' temperature range: I = $(-10 +60)^\circ\text{C}$

Load capacitance C: 10pF, D: 12pF, E: 15pF, G: 18pF, H: 20pF, I: 30pF, J: 32pF, S: series

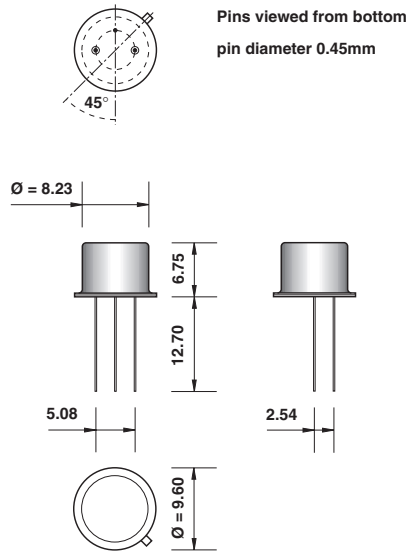
Adjustment tolerance A: ± 5 ppm, B: ± 10 ppm, C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm, P: ± 15 ppm

Temperature tolerance A: ± 5 ppm, B: ± 10 ppm, C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm, P: ± 15 ppm

Temperature range B: $(0 +55)^\circ\text{C}$, I: $(-10 +60)^\circ\text{C}$, C: $(-20 +70)^\circ\text{C}$, L: $(-40 +85)^\circ\text{C}$

HC-35/U precision crystal

HC-35/U dimensions(mm)



ESR - equivalent series resistance

frequency range(MHz)	cut/mode	esr(Ω)
(5.0 ~ 6.0)	AT1	<100
(6.0 ~ 7.0)	AT1	<120
(7.0 ~ 11.50)	AT1	<45
(11.50 ~ 13.0)	AT1	<45
(13.0 ~ 50.0)	AT1	<45
(25.0 ~ 48.0)	AT3	<50
(48.0 ~ 100)	AT3	<40
(75.0 ~ 125)	AT5	<100
(125 ~ 200)	AT7	<120

Environmental test conditions

Thermal shock	MIL STD 202F method 107, Test condition A
Seal	MIL STD 202F method 112, Test condition C
Vibration	MIL STD 202F method 201, Test condition C
Solderability	MIL STD 202F method 208, Procedure 4.0
Acceleration	MIL STD 202F method 107, Test condition B