

Specification	AXX35CW	Rev.: 1	Date: 2019-09-06
Type:	Precision Crystal Unit in cold-weld package HC-35/U		

Parameter	min.	typ.	Max.	Unit	Condition
Frequency range	5		40	MHz	Fundamental
	20		100	MHz	3 rd overtone
	50		160	MHz	5 th overtone
	100		210	MHz	7 th overtone
Crystal cut	AT				
Load capacitance C _L	Series or 5 pF to 50 pF				
Adjustment tolerance @25°C	± 5 to ± 50			ppm	See ordering code
Frequency stability					
Frequency stability over temperature	± 3 to ± 50			ppm	See table 1 and ordering code
Operating temperature range	0°/50° to -55°/+105°			°C	
Long term (aging) per year		±2	±3	ppm	@ 40°C
Series resonance resistance R ₁				Ω	Note 3
Motional capacitance C ₁				fF	Note 3
Static capacitance C ₀			7	pF	
Nominal drive level		100		μW	
Drive level dependence (DLD)	According to				IEC 60444-6
Unwanted responses SF = R _{spur} /R ₁					Note 3
Insulation resistance	100			MΩ	100 V DC
Storage temperature range	-55		+105	°C	
Enclosure (see drawing)	HC-35/U Cold-weld				MIL-H-10056
Package height H	6.75			mm	Standard Low Profile (LP), Note 3
	5.1			mm	
Packing	bulk				
RoHS compliant	YES				

Notes:

1. Terminology and test conditions are according to IEC standard IEC60122-1 or MIL-C3098
2. Measurement technique according to IEC 60444-5 or equivalent
3. On request. Please consult factory

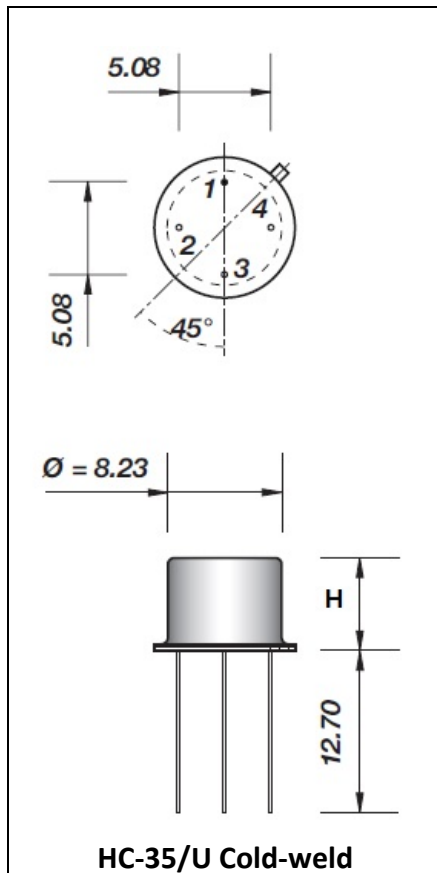
Table 1: Frequency stability over temperature

Temperature Range [°C]	ppm	±3	±4	±5	±7	±10	±15	±20	±25	±30	±40	±50
	Code	03	04	05	07	10	15	20	25	30	40	50
0 ... +50	0A	O	X	X	X	X	X	X	X	X	X	X
-10 ... +60	1B	-	O	X	X	X	X	X	X	X	X	X
-20 ... +70	2C	-	-	O	X	X	X	X	X	X	X	X
-30 ... +80	3E	-	-	-	O	X	X	X	X	X	X	X
-40 ... +85	4F	-	-	-	-	-	O	X	X	X	X	X
-55 ... +105	5G	-	-	-	-	-	-	-	O	X	X	X
Thermostat*	yyD*	O	O	X	X	X	-	-	-	-	-	-

X = available, O = available on request, - not available. Other temperature ranges on request

* For thermostat (ovenized) operation yy = adjustment temperature in °C, stability over ±5K

Enclosure drawing



Pin	connection
1	Case/ground
2	Crystal
3	N/C
4	Crystal

Ordering Code

Model	Package height	Frequency	Load Cap	Mode	Adjustment	Stability or oven temperature	
						[ppm]	[Code]
AXX35CW	_ (Standard) LP (low profile)	[MHz]	[pF] or S= Series	1 = Fund 3,5,...OT	[ppm]	[ppm]	[Code]
AXX35CW	- LP	10.000	18	1	05	05 05	1B 70D

Example for HC-35/U: AXX35CW_10.000-18-1-05-05-1B

for HC-35/U low profile: AXX35CW-LP-10.000-18-1-05-05-1B

for thermostat operation @ 70°C: AXX35CW_100.000-S-51-05-0570D

Environmental conditions

Test	IEC 60068-2 Part ...	IEC 60122-1 Clause ...	Test conditions
Sealing tests	2-17	4.8.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20	4.8.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock	2-27	4.8.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Free fall	2-32	4.8.9	Test Ed procedure 1, 2 drops from 1m height
Vibration, sinusoidal	2-6	4.8.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 1 kHz, 10g
Endurance tests - ageing - extended aging		4.9.1 4.9.2	30 days @ 85°C 1000h, 2000h, 8000h @85°C

Revision History

Rev.	Date [dd.mm.yyyy]	Remarks	Author	Checked
1	06.09.2019	First issue	BN	BN