

## ACT HC49/U ( Custom Packages )

The ACT HC49U family is available in industry standard package and specifications. This series offers a broad range of frequencies and tolerances in both standard and industrial temperature ranges. Housed in resistance welded cases the HC49U now has improved aging characteristics.

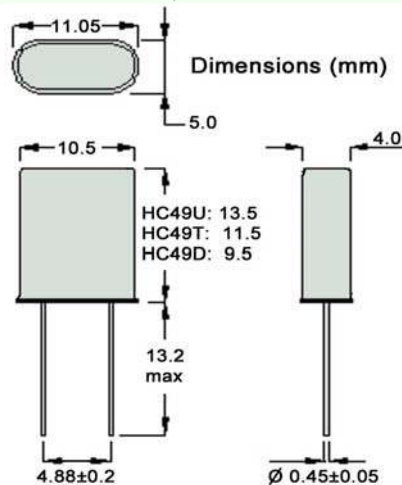
Various options - Third Leg, Insulating Washers etc - are available on request



### Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	1.00MHz ~ 200MHZ	Please specify
Frequency Tolerance @25°C	$\Delta f/fo$	$\pm 5\text{ppm} \sim 100\text{ppm}$ (30ppm Std )	Please specify
Temp Operating Range	Topr	-10 ~ +60°C Std	Others available - Please specify
Stability over Temp Range °C	$\Delta f/Fo$	$\pm 5\text{ppm} \sim 100\text{ppm}$ (50 ppm Std )	$\pm 5\text{ppm} \sim 100\text{ppm}$
Temp Storage Range	Tstg	-40°C to +85°C	
Equivalent Series Resistance	ESR	See table below	Dependent on cut & frequency
Shunt Capacitance	CO	7pF max	
Load Capacitance	CL	8 ~ 55pF or SR	Please specify
Drive Level	DL max	50 $\mu$ W typ	Others available - Please specify
Insulation Resistance	IR	500M $\Omega$ Min @ DC 100V $\pm 15\text{V}$	@ DC 100V $\pm 15\text{V}$
Aging	Fa	$\pm 5\text{ppm} / \text{year max@25}^\circ\text{C}$	Others available - Please specify

Frequency (MHz)	ESR ( $\Omega$ ) max	Mode	Frequency (MHz)	ESR ( $\Omega$ )	Mode
1.000	3000	SL Fund	12.000 ~ 13.999	40	AT Fund
1.8432 ~ 1.999	650	AT Fund	14.000 ~ 16.999	30	AT Fund
2.000 ~ 2.999	550	AT Fund	17.000 ~ 24.999	30	AT Fund
3.000 ~ 3.199	300	AT Fund	25.000 ~ 35.999	30	AT Fund
3.200 ~ 3.499	300	AT Fund	36.000 ~ 45.000	25	AT Fund
3.500 ~ 4.999	120	AT Fund	20.000 ~ 45.000	40	BT Fund
5.000 ~ 5.999	70	AT Fund	20.000 ~ 59.999	60	3rd OT
6.000 ~ 7.999	60	AT Fund	60.000 ~ 100.00	80	3rd OT
8.000 ~ 9.999	50	AT Fund	60.000 ~ 150.00	120	5th OT
10.00 ~ 11.999	40	AT Fund	120.00 ~ 200.00	150	7th OT



Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature Range, Load Capacitance & Mode

In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

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Date:21/12/10

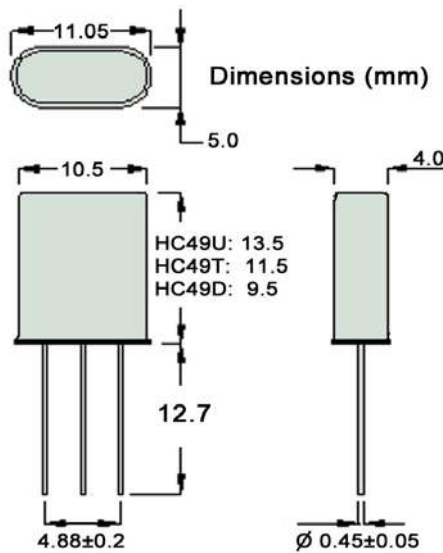
**ACT HC49/U ( Custom Packages )**

Standard Frequencies (MHz)					
1.000	4.096	7.000	11.0592	18.432	40.000
1.8432	4.194304	7.15909	11.2896	19.6608	48.000
2.000	4.433619	7.3728	12.000	20.000	50.000
2.097425	4.9152	7.3728	12.288	22.1184	56.448
2.4576	5.000	7.680	13.000	24.00014	60.000
2.8224	5.0688	8.000	13.875	24.576	64.000
3.000	5.120	8.192	14.000	25.000	
3.2768	5.185	8.67237	14.31818	27.000	
3.579545	5.7143	9.000	14.7456	28.224	
3.600	6.000	9.216	15.000	28.63636	
3.6864	6.144	9.8304	16.000	29.4912	
3.93216	6.176	10.000	16.384	30.000	
4.000	6.400	10.245	16.9344	32.000	
4.032	6.5536	10.752	17.73447	32.768	
4.096	6.5539	11.000	18.000	36.000	

**PACKAGE OPTIONS AVAILABLE**

- With insulating washer.
- Cropped leads.
- With centre ground lead.
- With ground lead to top of can.

**THREE LEAD VERSION DIMENSIONS (mm)**



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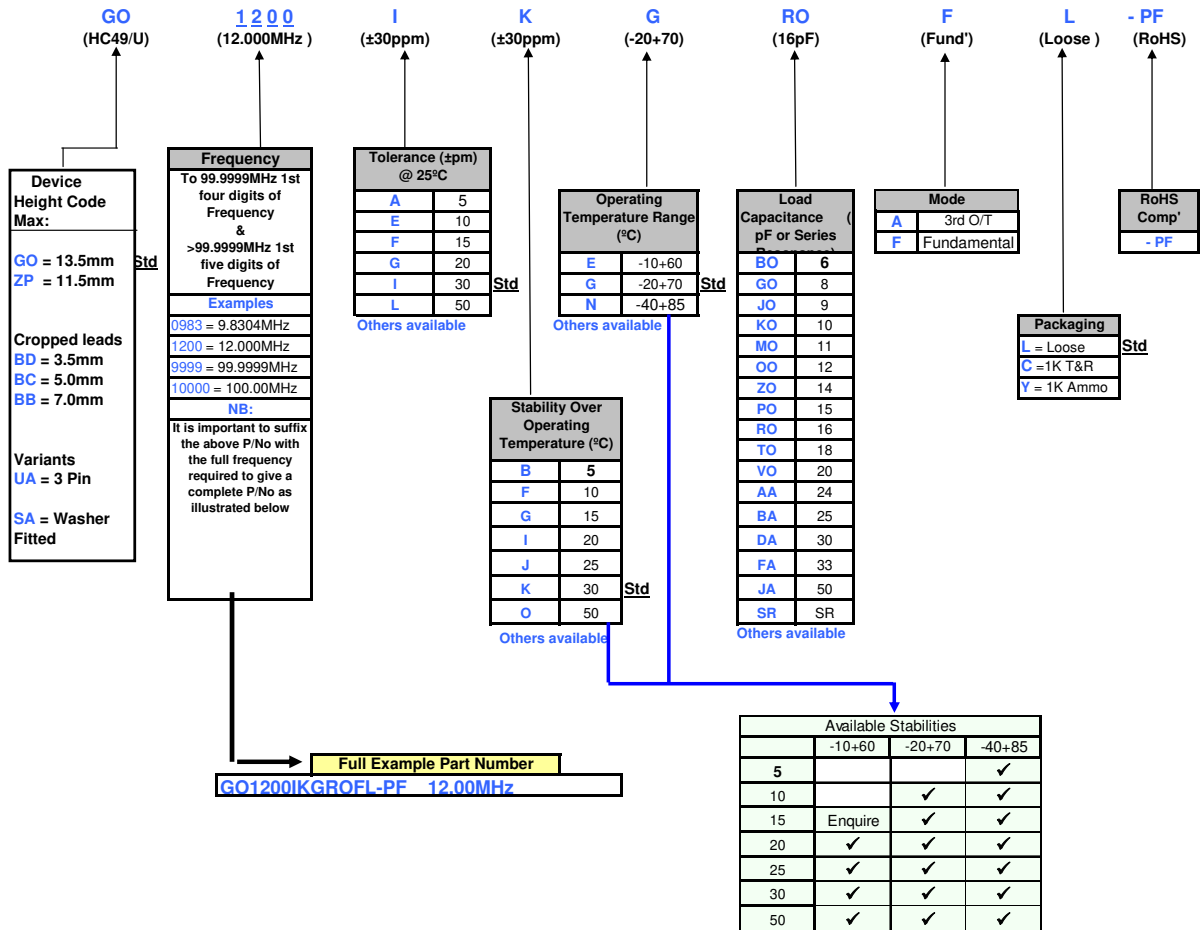
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**SERIES : ACTHC49/U ( Custom) Device series code GO**

Example :



**NOTES :**

- 1) Tighter Tolerances and Stabilities, other Operating Temperature Ranges and CL's may be available on custom devices. As each of these specification parameters impact on each other, it is not always possible to combine all options in one device. Therefore, if a specification not catered for above is required, please contact us directly for the relevant part number code(s).
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. Such devices would normally be allocated a custom specification part number which is wholly customer specific. ( MOQ Dependent)( EG : A 12.00MHz custom ACTHC49/U device may have a part number such as GO1200C- C1246-PF)
- 3) Frequencies below 10.000MHz are prefixed with a "0" (eg: 0800MHz = 8MHz. Whereas 10.000MHz is 1000 )