

Compatible with Eu Directive
 2002/EC - RoHS

ACT HC49/U (Standard Devices)

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 offers excellent aging characteristics. Cost / performance ratios are extremely good for this family of devices and they offer reasonably high density mounting capability, where height isn't a restriction. Low frequencies are also more readily available in this type of package. Various optional packages and custom specifications are available - PLEASE SEE SEPARATE DATA SHEET FOR ACT HC49/U (CUSTOM OPTIONS)



Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	1.8432MHz ~ 150MHZ Fundamental & 3rd to 7th O/T	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, -20~+70°C & -40~+85°C	Please specify
Stability over Temp Range °C	$\Delta f/Fo$	Please see table 2	Please specify
Temp Storage Range	Tstg	-40°C to +85°C	
Equivalent Series Resistance	ESR	Please see table 1	Dependent on cut & frequency
Shunt Capacitance	CO	7pF max	
Load Capacitance	CL	8 ~ 55pF or SR	Please specify
Drive Level	DL max	100 μ W typ	Options available - please enquire
Drive Level Dependency	DLD	Δ Freq & ESR	0.01, 0.1, 1, 10, 50, 100 mW steps
Insulation Resistance	IR	500M Ω Min	@ DC 100V $\pm 15V$
Aging	Fa	$\pm 3\text{ppm} / \text{year max @}25^\circ\text{C}$	

Table 1 ESR and mode of oscillation

Frequency (MHz)	ESR (Ω) max	Mode	Frequency (MHz)	ESR (Ω)	Mode
1.8432 ~ 1.999	350	AT Fund	7.000 ~ 9.999	30	AT Fund
2.000 ~ 2.399	300	AT Fund	10.000 ~ 12.999	20	AT Fund
2.400 ~ 2.999	200	AT Fund	13.000 ~ 30.000	20	AT Fund
3.000 ~ 3.199	150	AT Fund	24.000 ~ 29.999	50	3rd Overtone
3.200 ~ 3.499	100	AT Fund	30.000 ~ 65.000	40	3rd Overtone
3.500 ~ 3.899	90	AT Fund	60.000 ~ 99.999	90	3rd Overtone
3.900 ~ 4.099	70	AT Fund	90.000 ~ 120.000	90	5th Overtone
4.100 ~ 5.999	60	AT Fund	120.000 ~ 150.000	90	7th Overtone
6.000 ~ 6.999	50	AT Fund			

Table 2 Frequency stability Vs operating temperature range

Stability Temp	$\pm 10\text{ppm}$	$\pm 15\text{ppm}$	$\pm 20\text{ppm}$	$\pm 25\text{ppm}$	$\pm 30\text{ppm}$	$\pm 50\text{ppm}$
-10 ~ + 60°C	★	★	★	★	★	★
-20 ~ + 70°C	★	★	★	★	★	★
-40 ~ + 85°C	Enquire	★	★	★	★	★

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

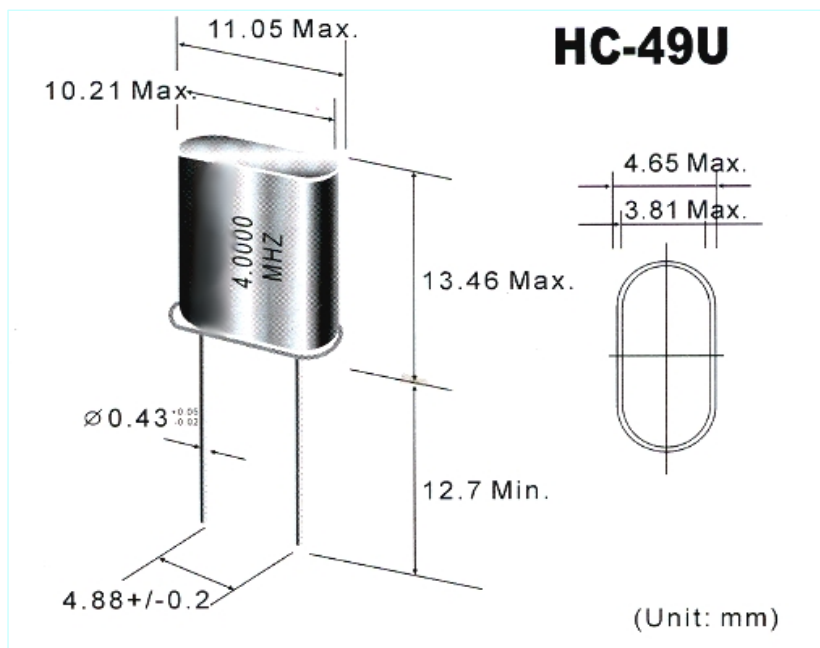
For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK
<http://www.actcrystals.com>

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ACT HC49/U (Standard Devices)

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

Lead Finish Sn/Ag



PACKAGE / PACKAGING OPTIONS AVAILABLE

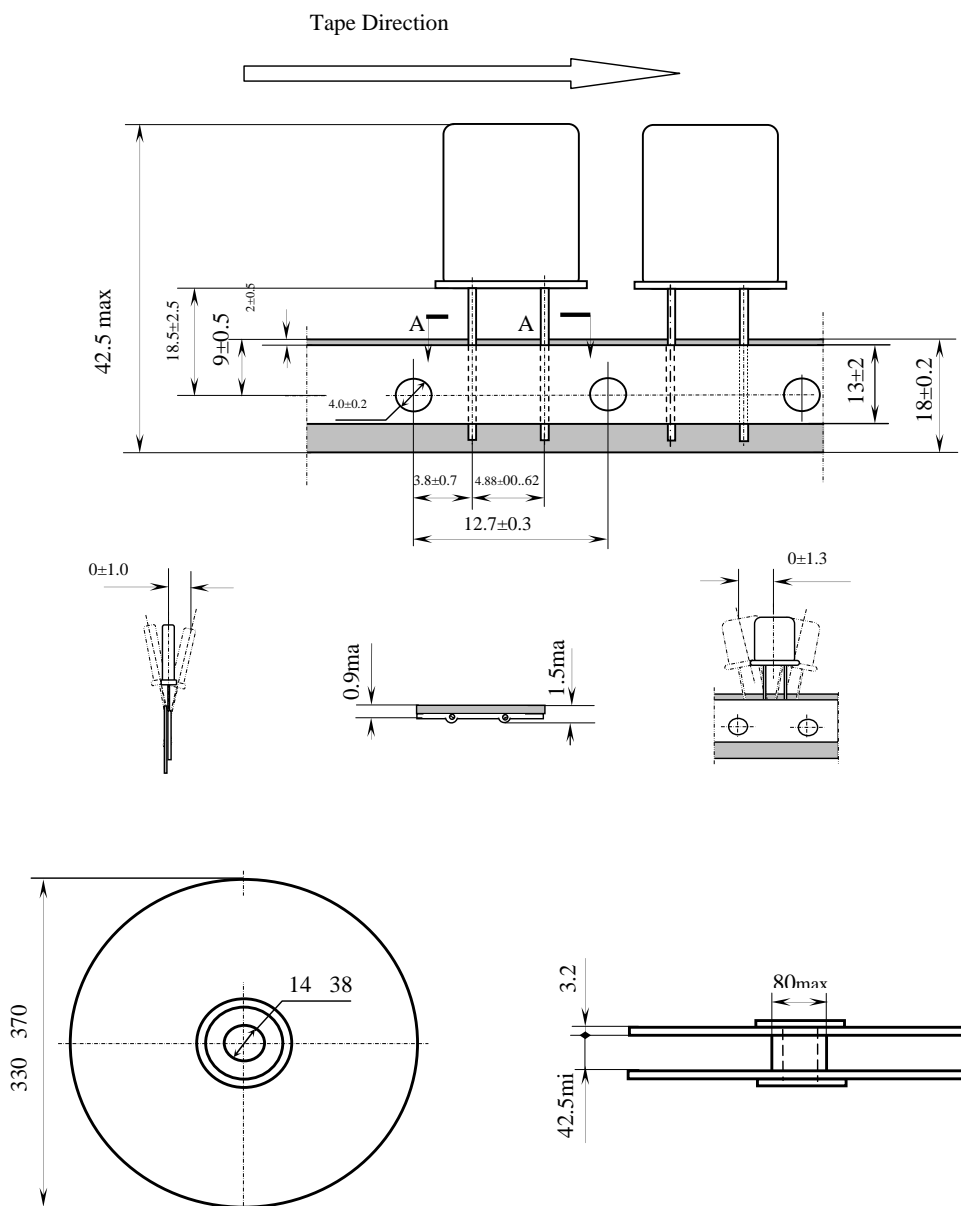
- With insulating washer.
- Cropped leads.
- Taping & reeling
- Ammo packaging

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TAPE / TAPE & REEL SPECIFICATIONS FOR HC49/U
 ACT HC49/U (Standard Devices)



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