

**ACT HC49US Metal can quartz resonator. (Standard packages)**

- Wide frequency range 3 ~ 100 MHz
- Excellent range of stabilities,
- AT & BT cut fundamental, AT cut 3rd Overtone



**Characteristics**

Frequency Range (MHz)	3.00 ~ 100.00 (table 1)
Operating temperature Top (°C)	-10 ~ 60 std , -20~70, -40~85
Tolerance @ 25°C (ppm)	±5~ ±100
Stability over temperature (ppm)	±5 ~ ±50 (table 2)
Effective Series Resistance (Ω)	Table 1
Shunt capacitance (C0) (pF)	7.0 max
Aging @25°C (ppm)	±5 /year max,
Load capacitance (pF)	5 ~ 55 & series
Drive level (µW)	100 standard, 500 max
Drive level dependency (ESR) (Ω)*	30% x ESR
Drive level dependency (FL) (ppm)*	50% x FL
Insulation resistance @100V <sub>DC</sub>	500MΩ min

**Rating**

Storage temperature (°C)	-40 ~ 85
MSL	1 (unlimited)
ESD	Not applicable

**Notes:**

\* 0.01 ~100µW, 20 steps

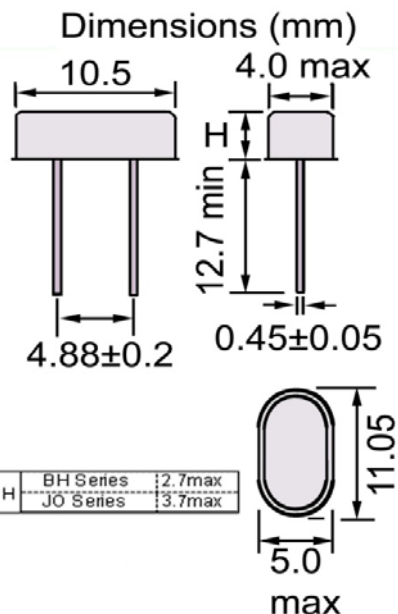


Table 1 Freq MHz	Maximum ESR(Ω) & Mode	
	ESR	Mode
3.0 ~ 3.5	300	AT Fundamental
3.579545 ~ 5.999	150	
6.0 ~ 7.999	60	
8 ~ 15.999	50	
16 ~ 30	30	BT Fundamental
24 ~ 40.32	30	
24 ~ 29.999	100	AT 3rd Overtone
30 ~49.999	80	
50 ~ 100	60	

Table 2		Available Stabilities (ppm)		
T op °C		-10~60	-20~70	-40~85
Stability (ppm)	±10	✓	✓	
	±15	✓	✓	✓
	±20	✓	✓	✓
	±25	✓	✓	✓
	±30	✓	✓	✓
	±50	✓	✓	✓

**Package options: Enquire**

- With insulating washer
- Cropped Leads
- Ammo Pack (not for new designs)
- Tape & Reel (not for new designs)

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

To specify: Please refer to part numbering system appended to the end of this data

ISO9001 Registered

For quotations or further information please contact us at:

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

Issue No.

11 SCB

Date:

27/03/2014

**ACT HC49US Metal can quartz crystal resonator. (Standard packages)**

JO	2700	E	F	E	KO	F	L	-PF
H = 3.7mm	27.00MHz	±10	±E	-10~60	10pF	Mode	Loose	-PF
	Frequency	ppm	ppm	Temp range	Load cap	Fundamental	Packing	RoHS

HC49US	
H = 3.7mm	JO
H = 2.7mm	BH

Tolerance	
25°C	
±ppm	
10	E
15	F
20	G
25	H
30	I
50	L

T <sub>OP</sub> °C	
-10~60	E
-20~70	G
-30~80	K
-40~85	M
Others available	

Load capacitance pF	
5	AO
6	BO
6.5	CO
7	DO
7.5	EO
8	GO
9	JO
10	KO
11	MO
12	OO
12.5	XO
13	YO
14	ZO
15	PO
16	RO
18	TO
20	VO
22	WO
24	AA
25	BA
27	CA
30	DA
32	EA
SR	SR
Others available	

Mode	
Fundamental	F
3rd OT	A

**Commodity code**

854160 00 00
Standard

Stability over temp ±ppm	
10	F
15	G
20	I
25	J
30	K
50	O

Tape & Reel	
Loose	L

**Frequency:**

For part numbering use the first 4 characters of the frequency in Hz ie 27MHz = 27000000Hz so the code used in the part number is 2700. If the frequency is 100MHz or higher then the first 5 characters are used. It is important to suffix the part number generated above with the actual frequency to give the full part number as illustrated below.

**JO2700EFEKOFL-PF 27.00MHz**

Table 2 Available Stabilities (ppm)		-10~60	-20~70	-40~85
Stability (ppm)	T <sub>op</sub> °C			
	±10	✓	✓	
	±15	✓	✓	✓
	±20	✓	✓	✓
	±25	✓	✓	✓
	±30	✓	✓	✓
±50	✓	✓	✓	

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