

SPECIFICATIONS

ITEM \ TYPE	HC-49US	ECS-3X9 ECS-3X10	UM-5	UM-1	HC-49/U	ECS-1X5-1.0
Freq. Range	3.5 - 70.0MHz	3.57 - 70.0MHz	10.0 - 200MHz	7.0 - 200MHz	1.0 - 200MHz	1.0MHz
Mode of Vibration	AT-cut Thickness-shear					
Drive Level	Fund., 3rd overtone 500μW (Fund.)	200μW (3rd)	Fund., 3rd, 5th, 7th 1mW			Fundamental .5μW max.
Load Capacitance	Series 12pF ~ 32pF (Fund.or 3rd O.T.)		Series 16pF ~ 32pF (Fund. or 3rd O.T.)			8pF Typ.
Freq. Tolerance	±30ppm, ±50ppm, ±100ppm		±10ppm, ±15ppm, ±20ppm, ±30ppm, ±50ppm			±3000ppm
Freq. Stability	±30ppm, ±50ppm, ±100ppm		±10ppm, ±15ppm, ±20ppm, ±30ppm, ±50ppm			±3000ppm
Oper. Temp. Range	-10~+60°C		-			-10~+60°C
Storage Temp. Range	-30~+80°C		-			-30~+70°C
Aging	±5ppm/yr (max.)					±10ppm/yr (max.)

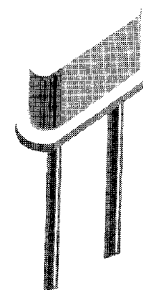
NOTE: ECS-3X9 package available from 3.5-3.9MHz.

RESISTANCE CALIBRATION IN SERIES RESONANCE

FREQ.	MODE	HC-49US
3.2 - 3.4MHz	Fund.	300 Ω max.
3.4 - 3.5MHz	Fund.	250 Ω max.
3.5 - 3.8MHz	Fund.	150 Ω max.
3.8 - 4.1MHz	Fund.	120 Ω max.
4.1 - 5.0MHz	Fund.	100 Ω max.
5.0 - 6.0MHz	Fund.	80 Ω max.
6.0 - 8.0MHz	Fund.	70 Ω max.
8.0 - 10.0MHz	Fund.	60 Ω max.
10.0 - 12.0MHz	Fund.	50 Ω max.
12.0 - 28.9MHz	Fund.	40 Ω max.
26.0 - 40.0MHz	3rd	100 Ω max.
40.0 - 70.0MHz	3rd	80 Ω max.

FREQ.	MODE	ECS-3X9/ECS-3X10
3.57 - 3.7MHz	Fund.	200 Ω max.
3.7 - 4.0MHz	Fund.	180 Ω max.
4.0 - 4.1MHz	Fund.	150 Ω max.
4.1 - 5.0MHz	Fund.	120 Ω max.
5.0 - 7.0MHz	Fund.	100 Ω max.
7.0 - 10.0MHz	Fund.	80 Ω max.
10.0 - 12.0MHz	Fund.	70 Ω max.
12.0 - 14.0MHz	Fund.	60 Ω max.
14.0 - 16.0MHz	Fund.	50 Ω max.
16.0 - 26.0MHz	Fund.	40 Ω max.
20.0 - 50.0MHz	3rd	50 Ω max.
50.0 - 60.0MHz	3rd	60 Ω max.
60.0 - 70.0MHz	3rd	75 Ω max.

FREQ. \ TYPE	MODE	UM-5	UM-1	HC-49/U
1.00MHz	Fund.	-	-	3000 Ω max.
1.84 - 2.0MHz	Fund.	-	-	600 Ω max.
2.0 - 2.4MHz	Fund.	-	-	450 Ω max.
2.4 - 3.0MHz	Fund.	-	-	350 Ω max.
3.0 - 3.5MHz	Fund.	-	-	150 Ω max.
3.5 - 4.0MHz	Fund.	-	-	90 Ω max.
4.0 - 7.0MHz	Fund.	-	-	60 Ω max.
7.0 - 10.0MHz	Fund.	-	-	35 Ω max.
10.0 - 15.0MHz	Fund.	50 Ω max.	45 Ω max.	35 Ω max.
15.0 - 30.0MHz	Fund.	50 Ω max.	35 Ω max.	25 Ω max.
20.0 - 25.0MHz	3rd	-	-	50 Ω max.
25.0 - 30.0MHz	3rd	-	-	40 Ω max.
30.0 - 75.0MHz	3rd	50 Ω max.	50 Ω max.	40 Ω max.
75.0 - 125.0MHz	5th	95 Ω max.	95 Ω max.	60 Ω max.
125.0 - 150.0MHz	5th	110 Ω max.	110 Ω max.	80 Ω max.
100.0 - 200.0MHz	7th	120 Ω max.	120 Ω max.	100 Ω max.


**HC-49U, HC-49US, UM-1,
UM-5, ECS-3X9, ECS-3X10,
ECS-1X5-1.0**

These products represent our selection of miniature and standard resistance weld type crystals.

FEATURES:

- Cost effective
- Excellent aging
- Wide frequency range
- Low profile
- Excellent reliability

OPTIONS:

- Third lead
- Mylar spacers
- Tape and reel
- Vinyl sleeve