

# Lead Monolithic Crystal Filters

## HC-49/T 2POLE

### Standard Specification



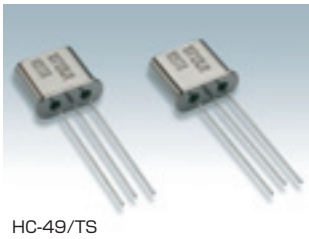
HC-49/T

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]
10707AH	10.700	3	±3.75	20	±18.00	0.5	2.0	1800 // 5
10712AH	10.700	3	±6.00	18	±20.00	0.5	2.0	3000 // 3
10715AH	10.700	3	±7.50	18	±25.00	0.5	2.0	3000 // 2
10730AH	10.700	3	±15.00	18	±50.00	0.5	2.0	5000 // -1
Operating Temperature Range		-20~+70°C						

Consult our sales representative for other specifications.

## HC-49/TS 2POLE

### Standard Specification



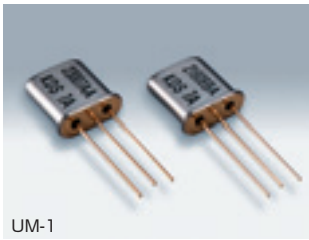
HC-49/TS

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]
10707AJ	10.700	3	±3.75	20	±18.00	0.5	2.0	1800 // 5
10712AJ	10.700	3	±6.00	18	±20.00	0.5	2.0	3000 // 3
10715AJ	10.700	3	±7.50	18	±25.00	0.5	2.0	3000 // 2
10730AJ	10.700	3	±15.00	18	±50.00	0.5	2.0	5000 // -1
Operating Temperature Range		-20~+70°C						

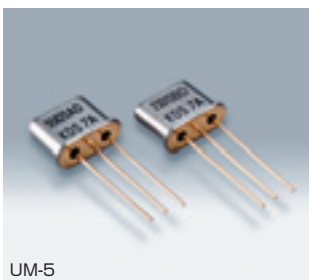
Consult our sales representative for other specifications.

## UM-1,UM-5 2POLE

### Standard Specification



UM-1



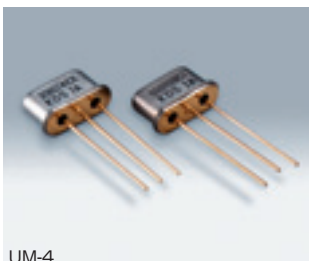
UM-5

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]
21407AD	21.400	3	±3.50	16	±12.50	1.0	2.5	1500 // 6
21409AD	21.400	3	±4.50	14	±12.50	1.0	2.0	1500 // 4
21412AD	21.400	3	±6.00	15	±20.00	1.0	2.0	1200 // 2.5
21415AD	21.400	3	±7.50	18	±25.00	1.0	2.0	1500 // 3
21420AD	21.400	3	±10.00	10	±25.00	1.0	2.0	1800 // 1.5
21430AD	21.400	3	±15.00	15	±45.00	1.0	2.0	3000 // 0.5
21707AD	21.700	3	±3.50	16	±12.50	1.0	2.5	1500 // 6
21709AD	21.700	3	±4.50	14	±12.50	1.0	2.0	1500 // 4
21712AD	21.700	3	±6.00	15	±20.00	1.0	2.0	1200 // 2.5
21715AD	21.700	3	±7.50	18	±25.00	1.0	2.0	1500 // 3
21720AD	21.700	3	±10.00	10	±25.00	1.0	2.0	1800 // 1.5
21730AD	21.700	3	±15.00	15	±45.00	1.0	2.0	3000 // 0.5
23007AD	23.050	3	±3.75	16	±12.50	1.0	2.5	1600 // 5
23015AD	23.050	3	±7.50	18	±25.00	1.0	2.0	1500 // 3
30815AD	30.875	3	±7.50	18	±25.00	1.0	2.0	800 // 6
45007AD	45.000	3	±3.50	10	±12.50	1.0	3.0	510 // 5.5
45015AD	45.000	3	±7.50	14	±25.00	1.0	2.5	550 // 3
45030AD	45.000	3	±15.00	10	±50.00	1.0	2.5	800 // 1.5
55115AD	55.100	3	±7.50	14	±25.00	1.0	2.5	600 // 4
55820AD	55.845	3	±10.00	20	±40.00	1.0	2.5	3600 // -0.8
Operating Temperature Range		-20~+70°C						

Consult our sales representative for other specifications.

## UM-4 2POLE

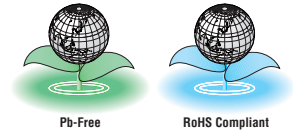
### Standard Specification



UM-4

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]
45007AC	45.000	3	±3.50	10	±12.50	1.0	3.0	510 // 5.5
45015AC	45.000	3	±7.50	14	±25.00	1.0	2.5	550 // 3
45030AC	45.000	3	±15.00	10	±50.00	1.0	2.5	800 // 1.5
55115AC	55.100	3	±7.50	14	±25.00	1.0	2.5	600 // 4
58515AC	58.525	3	±7.50	18	±30.00	1.0	2.5	350 // 4
Operating Temperature Range		-20~+70°C						

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# Lead Monolithic Crystal Filters

## HC-49/T 4POLE

### Standard Specification



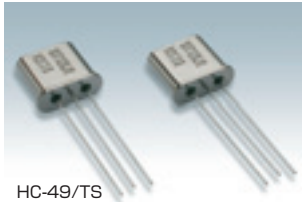
HC-49/T

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]//Cc[pF]
10707BH	10.700	3	±3.75	40	±14.00	1.0	2.5	1800//4.0//12
10712BH	10.700	3	±6.00	40	±20.00	1.0	2.5	2800//1.5//7
10715BH	10.700	3	±7.50	40	±25.00	1.0	2.5	3200//0.5//4.5
10730BH	10.700	3	±15.00	40	±50.00	1.0	2.5	6500//1.0//0.5
Operating Temperature Range	-20~+70°C							

Consult our sales representative for other specifications.

## HC-49/TS 4POLE

### Standard Specification



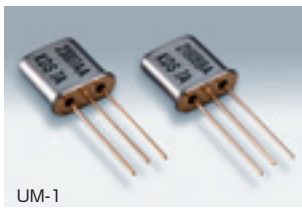
HC-49/TS

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]//Cc[pF]
10707BJ	10.700	3	±3.75	40	±14.00	1.0	2.5	1800//4.0//12
10712BJ	10.700	3	±6.00	40	±20.00	1.0	2.5	2800//1.5//7
10715BJ	10.700	3	±7.50	40	±25.00	1.0	2.5	3200//0.5//4.5
10730BJ	10.700	3	±15.00	40	±50.00	1.0	2.5	6500//1.0//0.5
Operating Temperature Range	-20~+70°C							

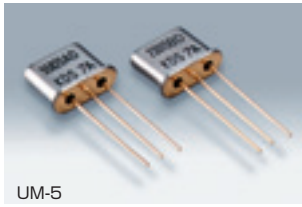
Consult our sales representative for other specifications.

## UM-1,UM-5 4POLE

### Standard Specification



UM-1



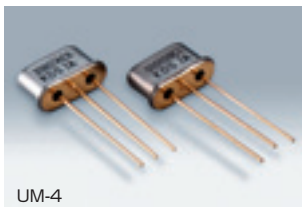
UM-5

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]//Cc[pF]
21407BD	21.400	3	±3.75	40	±14.00	1.0	2.5	850//5.0//16
21408BD	21.400	3	±4.00	40	±16.00	1.0	2.5	1000//4.0//13.5
21412BD	21.400	3	±6.00	40	±20.00	1.0	2.5	1200//2.5//10.5
21415BD	21.400	3	±7.50	40	±25.00	1.0	2.5	1500//2.0//8.0
21430BD	21.400	3	±15.00	40	±50.00	1.0	2.5	3300//0.5//3.0
21707BD	21.700	3	±3.75	40	±14.00	1.0	2.5	850//5.0//16.0
21712BD	21.700	3	±6.00	40	±20.00	1.0	2.5	1200//2.5//10.5
21715BD	21.700	3	±7.50	40	±25.00	1.0	2.5	1500//2.0//8.0
21730BD	21.700	3	±15.00	40	±50.00	1.0	2.5	3300//0.5//3.0
30815BD	30.850	3	±7.50	40	±25.00	1.0	2.5	800//4.0//12.0
45015BD	45.000	3	±7.50	40	±25.00	1.0	3.0	650//3.0//10.0
45030BD	45.000	3	±15.00	30	±40.00	1.0	3.0	800//1.5//7.0
55009BD	55.000	3	±4.50	50	±25.00	1.0	4.0	220//7.0//23.0
Operating Temperature Range	-20~+70°C							

Consult our sales representative for other specifications.

## UM-4 4POLE

### Standard Specification

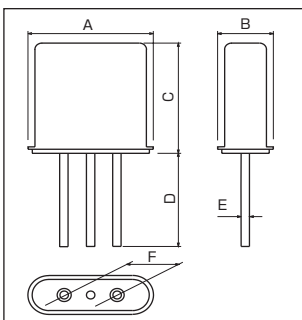


UM-4

Type	Nominal Frequency	Pass Bandwidth		Attenuation Bandwidth		Ripple	Insertion Loss	Terminal Impedance
	[MHz]	[dB]	[kHz]	[dB]	[kHz]	[dB]	[dB]	Rt[Ω]//Ct[pF]//Cc[pF]
45015BC	45.000	3	±7.50	40	±25.00	1.0	3.0	650//3.0//10.0
45030BC	45.000	3	±15.00	30	±40.00	1.0	3.0	800//1.5//7.0
55009BC	55.000	3	±4.50	50	±25.00	1.0	4.0	220//7.0//23.0
58108BC	58.1125	3	±4.00	50	±25.00	1.0	6.0	220//7.0//27.0
Operating Temperature Range	-20~+70°C							

Consult our sales representative for other specifications.

### Dimensions[mm]



	A	B	C	D	E	F
UM-1	7.8±0.2	3.0±0.2	7.8±0.2	12.5±1	φ0.35±0.05	3.75±0.2
UM-4	7.8±0.2	3.0±0.2	4.3±0.2	12.5±1	φ0.35±0.05	3.75±0.2
UM-5	7.8±0.2	3.0±0.2	5.8±0.2	12.5±1	φ0.35±0.05	3.75±0.2
HC-49/TS	10.7±0.3	4.4±0.3	9.4±0.4	20.0±1	φ0.43+0.05/-0.02	4.88±0.2
HC-49/T	10.7±0.3	4.4±0.3	11.0±0.3	20.0±1	φ0.43+0.05/-0.02	4.88±0.2