

MCF (SMD Series)

Monolithic Crystal Filter

- Application**

Pager, Cordless telephone, Portable telephone, VHF radio...

- Specification**

For normal 10.7MHz series

Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz						
10L071A		2	3 ±3.75	20 ±18.0		0.5	1.5	35 ±300 ~ ±1000	1.8K//5.0	-20 ~ +70	HC-49/U.3S*1
10L072A	10.695	4	3 ±3.75	40 ±14.0		1.0	2.5	65 ±300 ~ ±1000	1.8//4.5	-20 ~ +70	HC-49/U.3S*2
10L121A		2	3 ±6.0	20 ±25.0		0.5	1.5	35 ±300 ~ ±1000	2.5K//2.5	-20 ~ +70	HC-49/U.3S*1
10L122A	~	4	3 ±6.0	40 ±20.0		1.0	2.5	65 ±300 ~ ±1000	2.5K//1.5	-20 ~ +70	HC-49/U.3S*2
10L151A		2	3 ±7.5	18 ±25.0		0.5	1.5	35 ±300 ~ ±1000	3.0K//2.0	-20 ~ +70	HC-49/U.3S*1
10L152A	10.700	4	3 ±7.5	40 ±25.0		1.0	2.5	65 ±300 ~ ±1000	3.0K//1.5	-20 ~ +70	HC-49/U.3S*2
10L301A		2	3 ±15.0	15 ±50.0		0.5	1.5	30 ±300 ~ ±1000	5.0K//0	-20 ~ +70	HC-49/U.3S*1
10L302A		4	3 ±15.0	30 ±40.0		1.0	2.5	65 ±300 ~ ±1000	5.5K//1.0	-20 ~ +70	HC-49/U.3S*2

For normal 21.4MHz series

Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz						
21S081A		2	3 ±3.75	20 ±18.0		0.5	1.5	35 ±300 ~ ±1000	850//6.0	-20 ~ +70	UM-1.3S*1
21S082A	21.400	4	3 ±3.75	40 ±14.0		1.0	2.5	65 ±300 ~ ±1000	850//5.0	-20 ~ +70	UM-1.3S*2
21S121A		2	3 ±6.0	20 ±25.0		0.5	1.5	35 ±300 ~ ±1000	1.2K//3.0	-20 ~ +70	UM-1.3S*1
21S122A	~	4	3 ±6.0	40 ±20.0		1.0	2.5	65 ±300 ~ ±1000	1.2K//2.5	-20 ~ +70	UM-1.3S*2
21S151A		2	3 ±7.5	18 ±25.0		0.5	1.5	35 ±300 ~ ±1000	1.5K//2.5	-20 ~ +70	UM-1.3S*1
21S152A	21.800	4	3 ±7.5	40 ±25.0		1.0	2.5	65 ±300 ~ ±1000	1.5K//2.0	-20 ~ +70	UM-1.3S*2
21S301A		2	3 ±15.0	15 ±45.0		0.5	1.5	35 ±300 ~ ±1000	1.5K//1.0	-20 ~ +70	UM-1.3S*1
21S302A		4	3 ±15.0	40 ±50.0		1.0	2.5	65 ±300 ~ ±1000	2.2K//0.5	-20 ~ +70	UM-1.3S*2

For Pager

Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz			fo ± KHz			
21S151A	21.400	2	3 ±7.5	18 ±25.0		1.0	1.5	35 ±300 ~ ±1000	1.5K//2.5	-20 ~ +70	UM-1.3S*1
21T151A	~	2	3 ±7.5	18 ±25.0		1.0	1.5	35 ±300 ~ ±1000	1.5K//2.5	-20 ~ +70	UM-5.3S*1
21T201A	21.800	2	3 ±10.0	15 ±30.0		1.0	1.5	35 ±300 ~ ±1000	1.5K//2.5	-20 ~ +70	UM-5.3S*1

For Cordless Phone

Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz			fo ± KHz			
10L151A	10.700	2	3 ±7.5	18 ±25.0		0.5	2.0	35 ±300 ~ ±1000	3.0K//2.0	-20 ~ +70	HC-49/U.3S*1
21S071A	21.400	2	3 ±3.75	18 ±12.5		1.0	2.0	60 ±(910±10)	1.5K//6.0	-20 ~ +70	UM-1.3S*2
21S122A	~	4	3 ±6.0	40 ±20.0		1.5	3.0	80 ±(910±10)	1.2K//2.5	-20 ~ +70	UM-1.3S*2
21S152A	21.800		3 ±7.5	40 ±25.0		1.5	3.0	80 ±(910±10)	1.5K//2.0	-20 ~ +70	UM-1.3S*2
58S072AT	58.075	4	3 ±3.75	35 ±14.0		2.0	4.0	80 ±(910±10)	3.0K//0.4	-20 ~ +70	UM-1.3S*2
58S122AT	58.1125	4	3 ±6.0	35 ±20.0		2.0	3.0	80 ±(910±10)	3.0K//0.4	-20 ~ +70	UM-1.3S*2
58S152AT	58.1625	4	3 ±7.5	28 ±25.0		2.0	3.0	80 ±(910±10)	3.0K//1.0	-20 ~ +70	UM-1.3S*2
83S302AT	83.160		3 ±15.0	20 ±60.0		1.5	6.0	65 ±(910±10)	2.5K//1.0	-20 ~ +70	UM-1.3S*2

For Portable Telephone

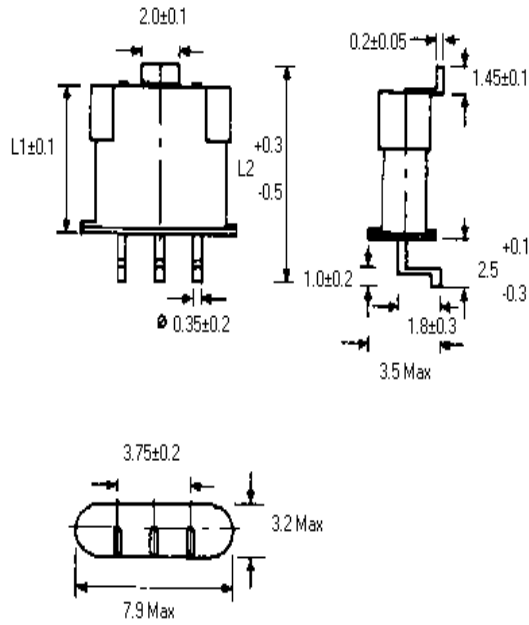
Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz			fo ± KHz			
45S301AF	45.000	2	3 ±15.0	15 ±50.0		1.0	2.0	50 -(910±1 0)	600//1.5	-20 ~ +70	UM-1.3S*1
45T301AF		2	3 ±15.0	15 ±50.0		1.0	2.0	50 -(910±1 0)	600//1.5	-20 ~ +70	UM-5.3S*1
45N401AF		2	2 ±20.0	15 ±60.0		1.0	2.0	50 -(910±1 0)	860//1.7	-20 ~ +70	UM-4.3S*1
45T151AF	45.050	2	3 ±7.5	15 ±22.0		1.0	2.0	66 -(910±1 0)	470//6.0	-20 ~ +70	UM-5.3S*1
45S152AF	45.100	4	3 ±7-5	40 ±30.0		1.0	3.0	80 ±300 ~ ±1000	560//3.0	-20 ~ +70	UM-1.3S*2
45T152AF		4	3 ±7.5	40 ±30.0		1.0	3.0	80 ±300 ~ ±1000	560//3.0	-20 ~ +70	UM-5.3S*2
45T302AF		4	3 ±15.0	30 ±60.0		1.0	3.0	80 ±910	1.6K//0	-20 ~ +70	UM-5.3S*2
70T202AT	70.000	4	3 ±10.0	35 ±40.0		2.0	6.0	70 ±300 ~ ±1000	2.5K//1.0	-20 ~ +70	UM-5.3S*2
90T092AT	90.000	4	3 ±4.5	13 ±12.5		2.0	6.0	70 ±(910±1 0)	2.5K//1.0	-20 ~ +70	UM-5.3S*2

For VHF Radio

Type	Nominal Frequency	Pole	Pass Band	Stop Band		Ripple (dB)	Loss (dB)	Guaranteed Attenuation	Terminating impedance (Ohm / pF)	Operating Temp. Range (°C)	Case
			dB / KHz	dB / KHz	dB / KHz			fo ± KHz			
45L152AT	45.000	4	3 ±7.5	40 ±30.0		2.0	3.0	70 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70	HC-49/U.3S*2
45SA52AT		4	3 ±7.5	40 ±30.0		2.0	3.0	70 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70	UM-1.3S*2
55L171AT	55.845	2	3 ±8.5	18 ±34.0		2.0	3.0	35 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70	HC-49/U.3S*1
55S171AT	55.025	2	3 ±8.5	18 ±34.0		2.0	3.0	35 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70	UM-1.3S*1
55S172AT		4	3 ±8-5	25 ±25.0		2.0	3.0	70 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70	UM-1.3S*2
58S172AT		58.1125	4	3 ±8.5	25 ±25.0		2.0	4.0	70 ±300 ~ ±1000	3.0K//1.0	-20 ~ +70
70S152AT	70.000	4	3 ±7.5	40 ±30.0		2.0	6.0	70 ±300 ~ ±1000	2.5K//1.0	-20 ~ +70	UM-1.3S*2
90S202AT	90.000	4	3 ±10.0	35 ±40.0		2.0	6.0	70 ±300 ~ ±1000	2.5K//1.0	-20 ~ +70	UM-1.3S*2

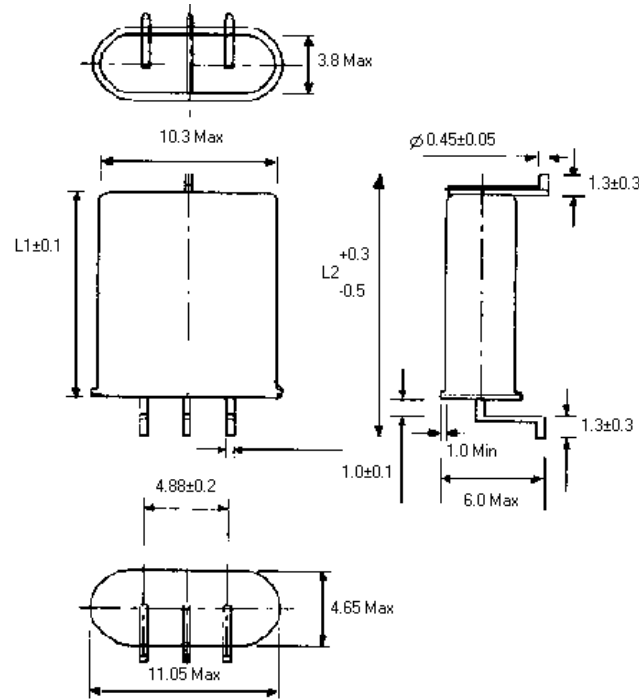
Dimensions

UM Series



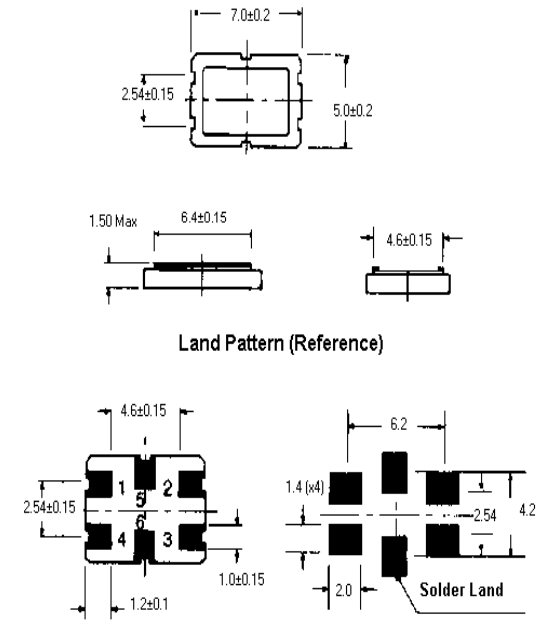
Holder	L1	L2
UM-1S	7.7	11.7
UM-4S	4.6	8.6
UM-5S	5.9	9.9

49/U Series



Holder	L1	L2
HC-49/U	17.06	13.1
HC-49/U1	13.46	9.5
HC-49/U2	14.96	11
HC-49/U3	15.36	11.4

SF-7050



Pin Connect	
2,4	Crystal
1,3,5,6	GND