

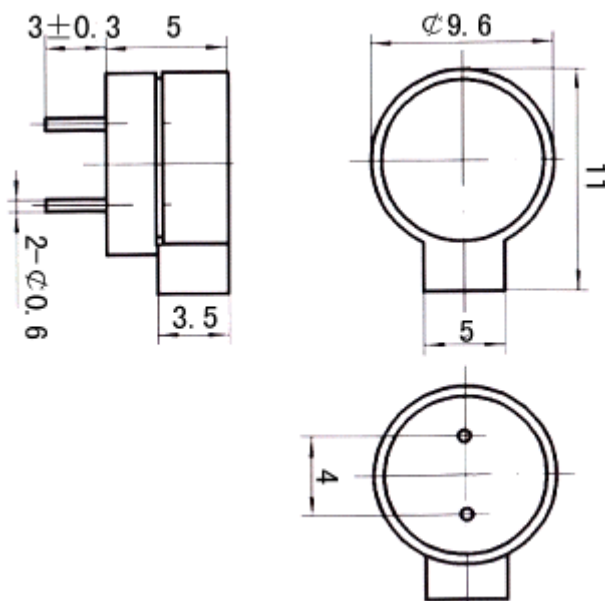


### HCM09B SERIES:

Type	HCM0901B	HCM0903B	HCM0905B
Rated Voltage (V)	1.5	3.5	5
Operating Voltage (V)	1~2	2~4	4~6
△Rated Current (mA)	≤80	≤60	≤60
Coil Resistance (Ω)	5.5±1.0	25 ±3	45 ±4
△Sound Output at 10cm (dB)	≥85	≥85	≥85
Resonant Frequency (Hz)	2731	2731	2731
Operating Temperature (°C)	-20~+70	-20~+70	-20~+70
Storage Temperature (°C)	-30~+85	-30~+85	-30~+85
Weight (g)	1.0	1.0	1.0

Value applying rated voltage (2731Hz, 1/2duty, square wave)

### DIMENSIONS Unit:mm Tolerance:±0.5



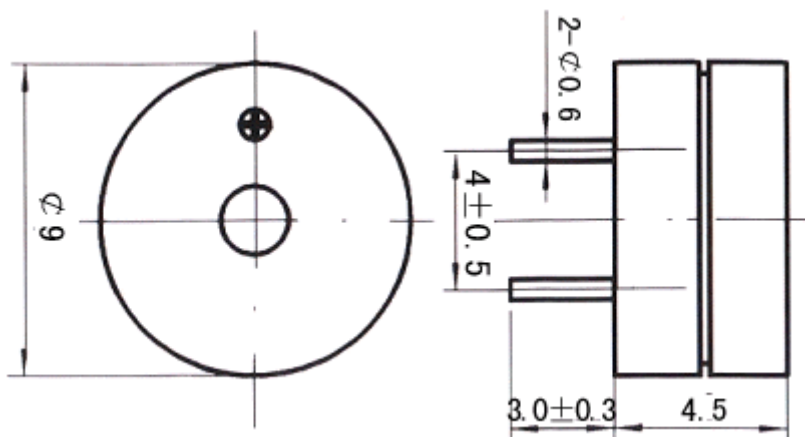


### HCM09E SERIES:

Type	HCM0901E	HCM0903E	HCM0905E
Rated Voltage (V)	1.5	3.5	5
Operating Voltage (V)	1~2	2~4	4~6
Rated Current (MA)	< 80	< 60	< 60
Coil Resistance (ohm)	5.5 ± 1.0	25 ± 3	45 ± 4
Sound Output at 10cm (dB)	> 85	> 85	> 85
Resonant Frequency (Hz)	2731	2731	2731
Operating Temperature (°C)	-20~+70	-20~+70	-20~+70
Storage Temperature (°C)	-30~+85	-30~+85	-30~+85
Weight (g)	1.0	1.0	1.0

Value applying rated voltage (2731Hz,1/2duty,square wave)

**DIMENSIONS**      Unit:mm      Tolerance:±0.5



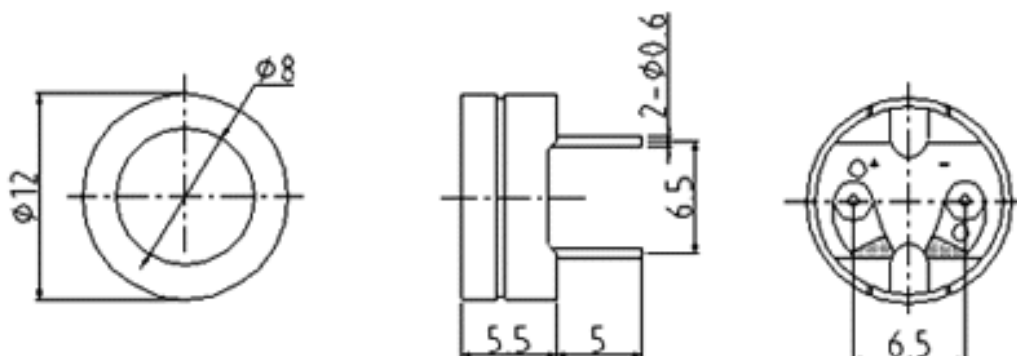


**HC12-105 SERIES:**

Type	HC12-105A	HC12-105B
Rated Voltage (V)	1.5	1.5
Operating Voltage (V)	1~2	1~2
Rated Current (MA)	< 30	< 10
Coil Resistance (ohm)	16 ± 2	42 ± 6
Coil Impedance (ohm)	40	140
Sound Output at 10cm (dB)	> 75	> 70
Resonant Frequency (Hz)	2048	2048
Operating Temperature (°C)	-25~+80	-25~+80
Storage Temperature (°C)	-30~+85	-30~+85
Weight (g)	2	2

Value applying rated voltage (2048Hz, 1/2duty, square wave)

**DIMENSIONS**      Unit:mm      Tolerance:±0.5



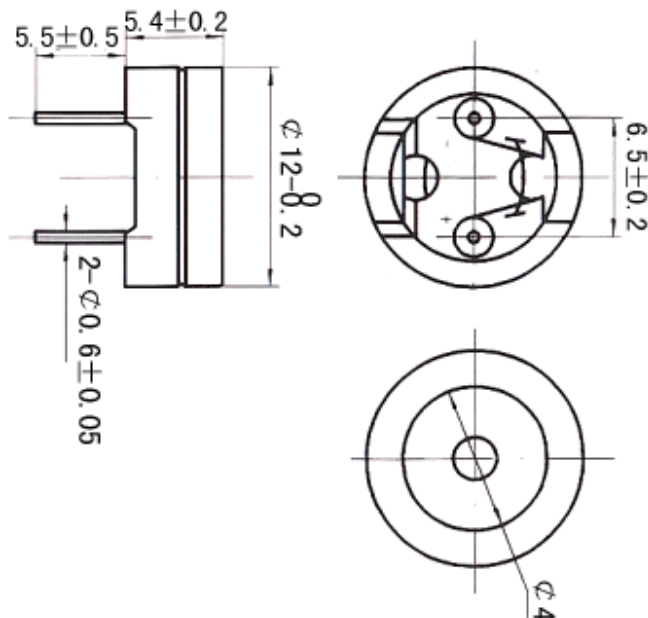


### HC12-105S SERIES:

Type	HC12-105S
Rated Voltage (V)	1.5
Operating Voltage (V)	1~2
Rated Current (MA)	< 30
Coil Resistance (ohm)	16 ± 2
Coil Impedance (ohm)	40
Sound Output at 10cm (dB)	> 75
Resonant Frequency (Hz)	2048
Operating Temperature (°C)	-25~+80
Storage Temperature (°C)	-30~+85
Weight (g)	2

Value applying rated voltage (2048Hz, 1/2duty, square wave)

**DIMENSIONS**      Unit:mm      Tolerance:±0.5



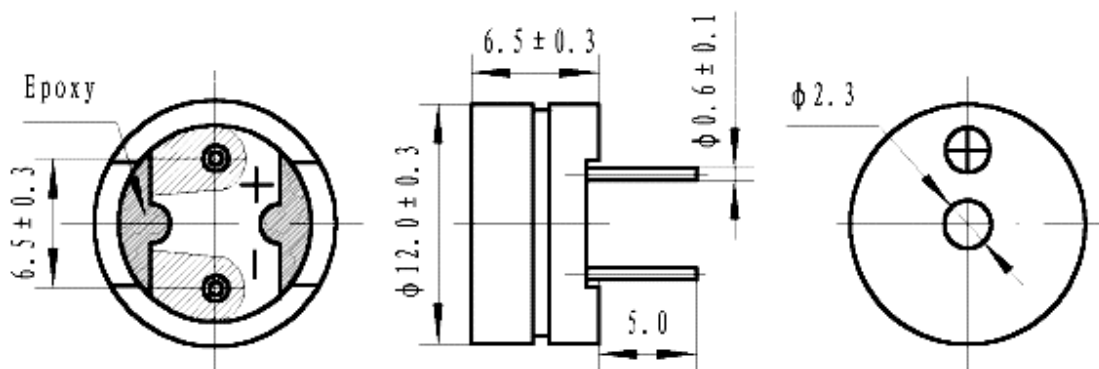


### HC12-106 SERIES:

Type	HC12-106A	HC12-106B	HC12-106C
Rated Voltage (V)	1.5	3.6	5
Operating Voltage (V)	1~2	4~7	4~7
Rated Current (MA)	< 30	< 70	< 70
Coil Resistance (ohm)	16 ± 2	16 ± 2	40 ± 6
Sound Output at 10cm (dB)	> 80	> 80	> 80
Resonant Frequency (Hz)	2400	2700	2700
Operating Temperature (°C)	-25~+80	-25~+80	-25~+80
Storage Temperature (°C)	-30~+85	-30~+85	-30~+85
Weight (g)	2	2	2

Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)

**DIMENSIONS**      Unit:mm      Tolerance:±0.5



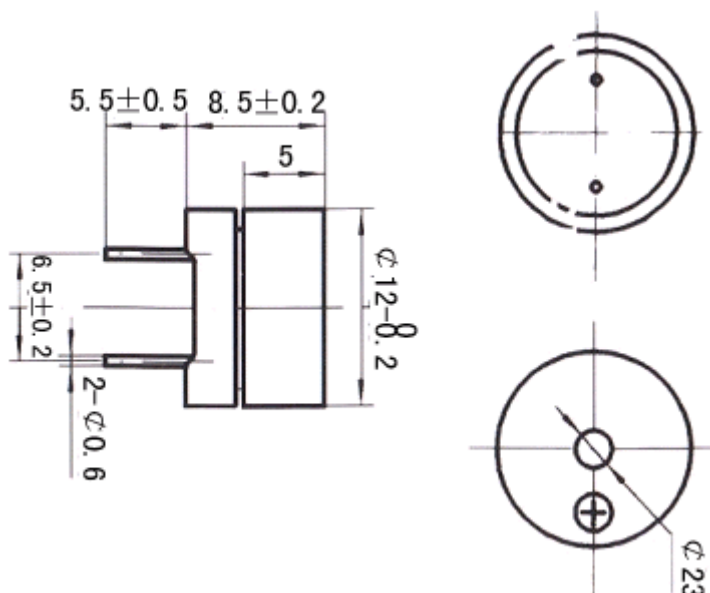


### HC-12G SERIES:

Type	HC12G-1P	HC12G-2P
Rated Voltage (V)	1.5	1.5
Operating Voltage (V)	1~2	1~2
Rated Current (MA)	< 30	< 10
Coil Resistance (ohm)	16 ± 2	42 ± 6
Coil Impedance (ohm)	40	140
Sound Output at 10cm (dB)	> 85	> 80
Resonant Frequency (Hz)	2048	2048
Operating Temperature (°C)	-25~+80	-25~+80
Storage Temperature (°C)	-30~+85	-30~+85
Weight (g)	2	2

Value applying rated voltage (2048Hz, 1/2duty, square wave)

DIMENSIONS Unit:mm Tolerance:±0.5



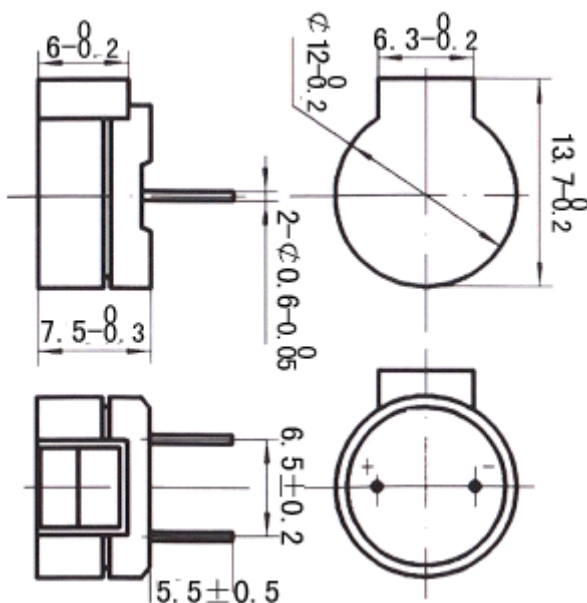


**HC12-04B SERIES:**

Type	HC12-04A	HC12-04B
Rated Voltage (V)	1.5	1.5
Operating Voltage (V)	1~2	1~2
Rated Current (MA)	< 70	< 70
Coil Resistance (ohm)	6.5 ± 1.0	6.5 ± 1.0
Coil Impedance (ohm)	16	22
Sound Output at 10cm (dB)	> 80	> 85
Resonant Frequency (Hz)	2048	2731
Operating Temperature (°C)	-25~+70	-25~+70
Storage Temperature (°C)	-30~+80	-30~+80
Weight (g)	2	2

Value applying rated voltage (resonant frequency, 1/2 duty, square wave)

**DIMENSIONS Unit:mm Tolerance:±0.5**



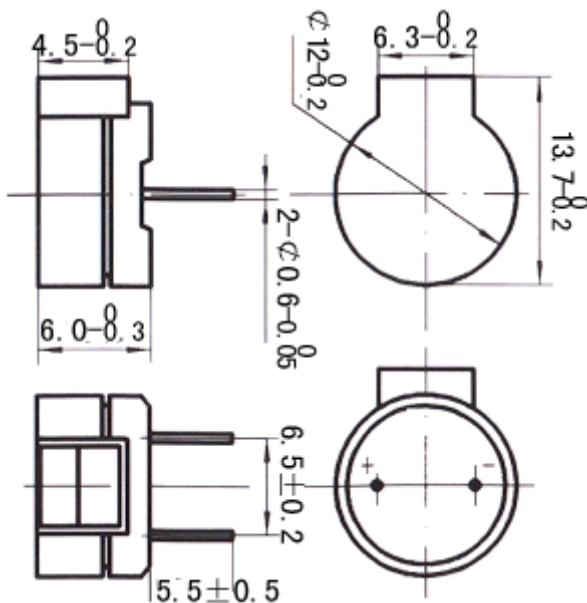


**HC12-04F SERIES:**

Type	HC12-04F
Rated Voltage (V)	1.5
Operating Voltage (V)	1~2
Rated Current (MA)	< 70
Coil Resistance (ohm)	6.5 ± 1.0
Coil Impedance (ohm)	22
Sound Output at 10cm (dB)	> 85
Resonant Frequency (Hz)	2731
Operating Temperature (°C)	-25~+70
Storage Temperature (°C)	-30~+80
Weight (g)	2

Value applying rated voltage (resonant frequency, 1/2 duty, square wave)

**DIMENSIONS Unit:mm Tolerance:±0.5**





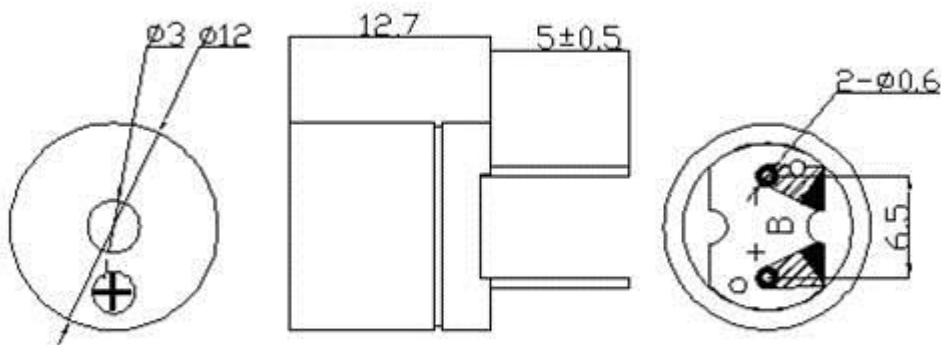


**HC12-113P SERIES:**

Type	HC12-113P
Rated Voltage (V)	1.5
Operating Voltage (V)	1~2
Rated Current (MA)	< 30
Coil Resistance (ohm)	16 ± 2
Coil Impedance (ohm)	40
Sound Output at 10cm (dB)	> 80
Resonant Frequency (Hz)	2048
Operating Temperature (°C)	-25~+80
Storage Temperature (°C)	-30~+85
Weight (g)	2

Value applying rated voltage (2048Hz, 1/2duty, square wave)

**DIMENSIONS** Unit:mm Tolerance:±0.5



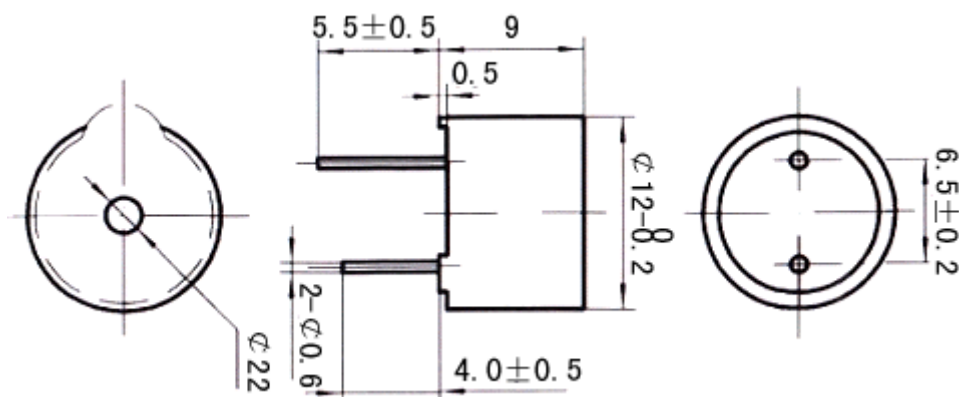


### HCM12A SERIES:

Type	HCM1201A	HCM1205A	HCM1212A
Rated Voltage (V)	1.5	5	12
Operating Voltage (V)	1~2	3~7	7~16
Rated Current (MA)	< 30	< 40	< 40
Coil Resistance (ohm)	16 ± 1.0	45 ± 5	140 ± 14
Coil Impedance (ohm)	40	80	240
Sound Output at 10cm (dB)	> 80	> 85	> 85
Resonant Frequency (Hz)	2400	2400	2400
Operating Temperature (°C)	-25 ~ +70	-25 ~ +70	-25 ~ +70
Storage Temperature (°C)	-30 ~ +85	-30 ~ +85	-30 ~ +85
Weight (g)	2	2	2

Value applying rated voltage (2400Hz, 1/2duty, square wave)

**DIMENSIONS**      Unit:mm      Tolerance:±0.5



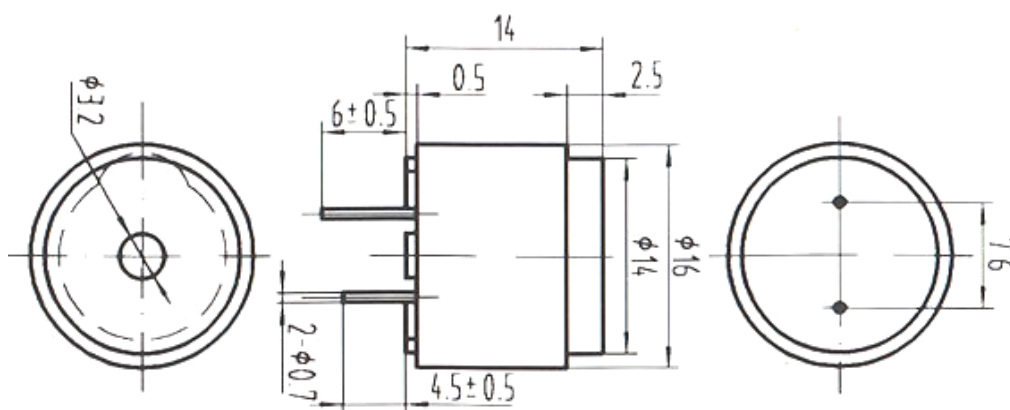


### HCM16A SERIES:

Type	HCM1601A	HCM1606A	HCM1612A
Rated Voltage (V)	1.5	6	12
Operating Voltage (V)	1~2	4~8	9~15
Rated Current (MA)	< 12	< 40	< 40
Coil Resistance (ohm)	27 ± 3	42 ± 6	115 ± 12
Coil Impedance (ohm)	80	140	200
Sound Output at 10cm (dB)	> 80	> 85	> 85
Resonant Frequency (Hz)	2048	2048	2048
Operating Temperature (°C)	-25~+70	-25~+70	-25~+70
Storage Temperature (°C)	-30~+85	-30~+85	-30~+85
Weight (g)	7	7	7

Value applying rated voltage (2048Hz, 1/2duty, square wave)

### DIMENSIONS Unit:mm Tolerance:±0.5





### HCM18A SERIES:

Type	HCM1806A	HCM1812A
Rated Voltage (V)	6	12
Operating Voltage (V)	3~8	6~15
Rated Current (MA)	< 40	< 40
Coil Resistance (ohm)	60± 9	120 ± 18
Coil Impedance (ohm)	100	220
Sound Output at 10cm (dB)	>85	> 85
Resonant Frequency (Hz)	2000	2000
Operating Temperature (°C)	-25 ~ +70	-25 ~ +70
Storage Temperature (°C)	-30 ~ +80	-30 ~ +80
Weight (g)	3	3

Value applying rated voltage (2000Hz, 1/2duty, square wave)

### DIMENSIONS Unit:mm Tolerance:±0.5

