

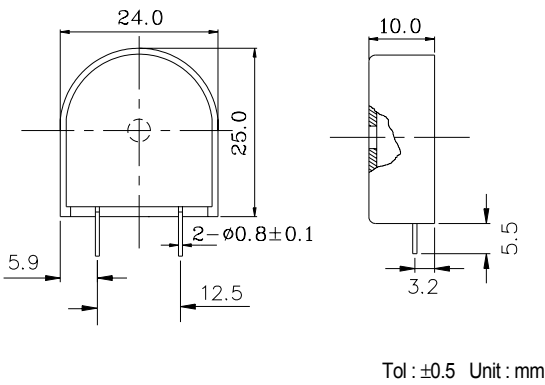
(Vertical Mounting Type)

Shape

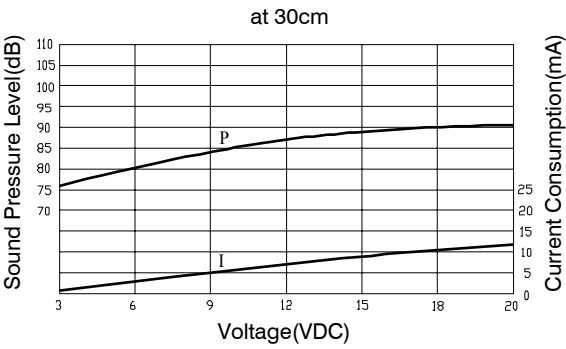
KPE-522



Dimension



Characteristic

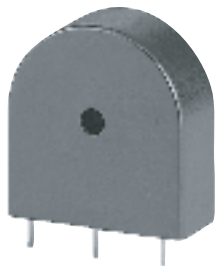


PIEZO TRANSDUCER (Vertical Mounting Type)

A

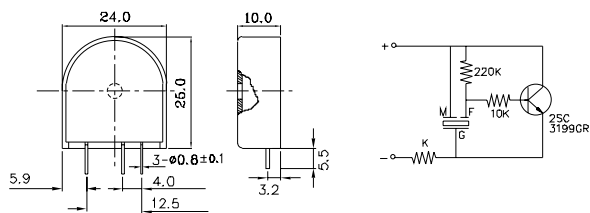
Shape

KPE-503



Model Number	KPE-503
Rated Frequency (Hz)	3,200 ± 500
Operating Voltage Range (VDC)	3 ~ 28
Current Consumption (mA)	Max. 7@12VDC
Sound Pressure Level (dB)	Min. 72dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +115
Storage Temperature (°C)	-40 ~ +125
Weight (Gram)	3.7
Material	PC 10% Glass (Black)

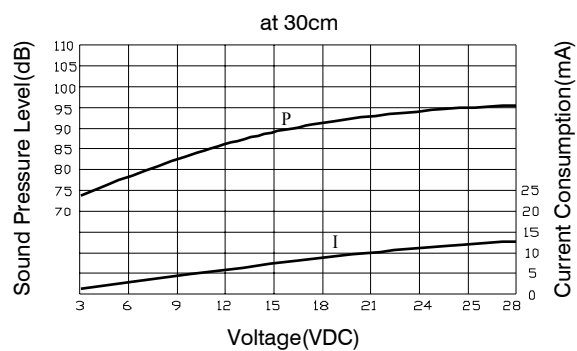
Dimension



The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.(one example)

Tol : ±0.5 Unit : mm

Characteristic



PIEZO TRANSDUCER

(Pin Type)

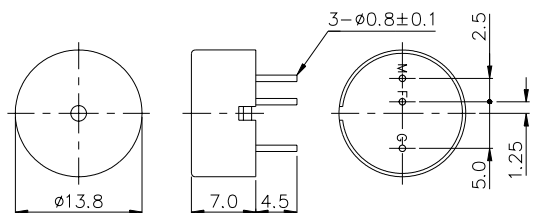
(Self Drive Type)

Shape

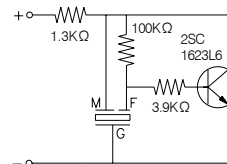
KPE-161



Dimension



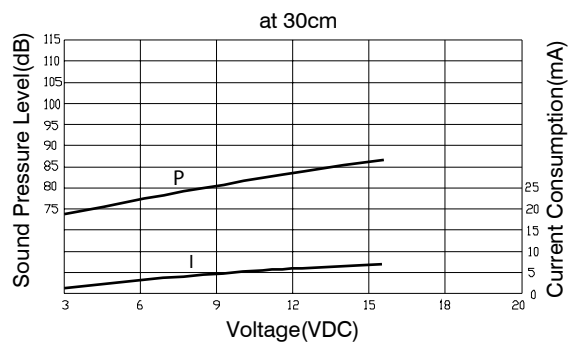
The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.



Tol : ± 0.5 Unit : mm

Model Number	KPE-161
Rated Frequency (Hz)	4,100 $\pm$ 500
Operating Voltage Range (VDC)	3 ~ 16
Current Consumption (mA)	Max. 7@12VDC
Sound Pressure Level (dB)	Min. 70dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	1.0
Material	ABS UL-94 1/16" HB High Heat (Black)

Characteristic



Shape

KPE-123



Shape

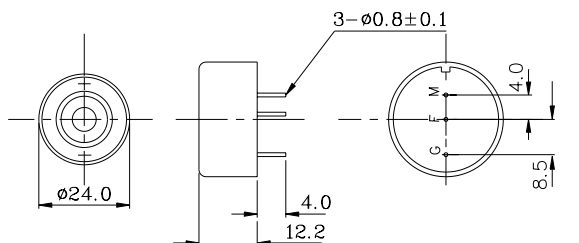
KPE-134



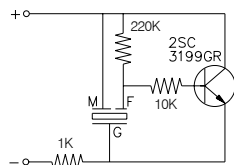
Model Number	KPE-123
Rated Frequency (Hz)	3,000 ± 500
Operating Voltage Range (VDC)	3 ~ 28
Current Consumption (mA)	Max. 8@12VDC
Sound Pressure Level (dB)	Min. 82dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	3.4
Material	ABS UL-94 1/16" HB High Heat (Black)

Model Number	KPE-134
Rated Frequency (Hz)	3,600 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max. 12@12VDC
Sound Pressure Level (dB)	Min. 85dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	1.3
Material	ABS UL-94 1/16" HB High Heat (Black)

Dimension

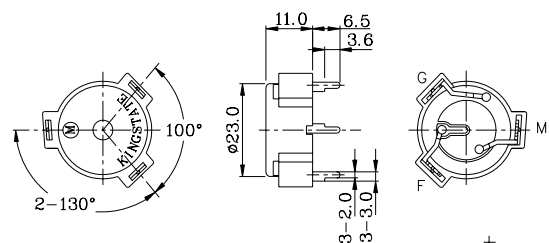


The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.

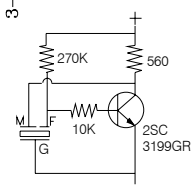


Tol : ±0.5 Unit : mm

Dimension

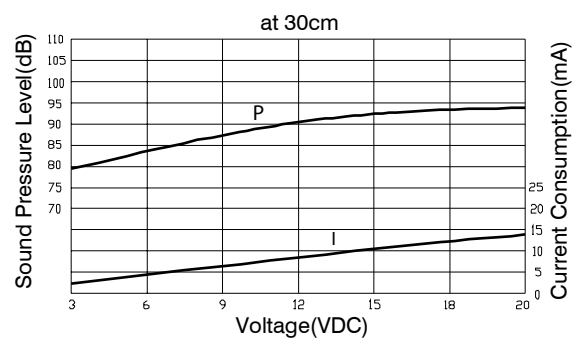
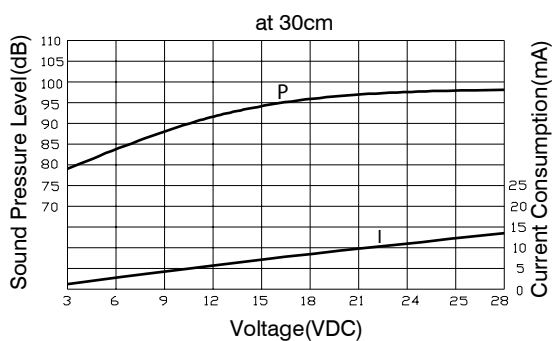


The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.



Tol : ±0.5 Unit : mm

Characteristic



PIEZO TRANSDUCER

(Self Drive Type)

A

Shape

KPE-132



Shape

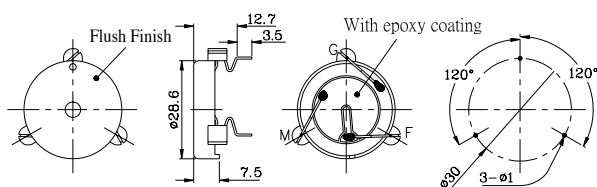
KPE-133



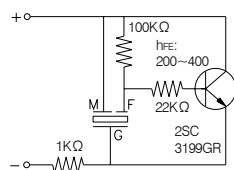
Model Number	KPE-132
Rated Frequency (Hz)	3,000 ± 500
Operating Voltage Range (VDC)	3 ~ 28
Current Consumption (mA)	Max. 8@12VDC
Sound Pressure Level (dB)	Min. 83dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	3.8
Material	ABS UL-94 1/16" HB High Heat (Black)

Model Number	KPE-133
Rated Frequency (Hz)	3,600 ± 500
Operating Voltage Range (VDC)	3 ~ 28
Current Consumption (mA)	Max. 7@12VDC
Sound Pressure Level (dB)	Min. 82dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-20 ~ +60
Storage Temperature (°C)	-30 ~ +70
Weight (Gram)	5.6
Material	Top Lid : ABS UL-94 1/16" HB Bottom Lid : PVC (Black)

Dimension

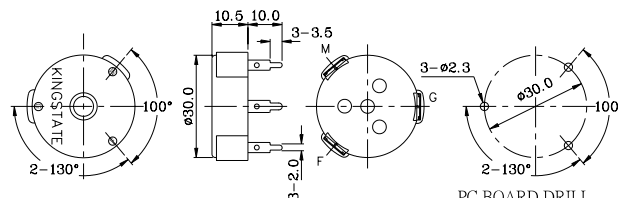


The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.



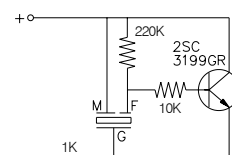
Tol : ±0.5 Unit : mm

Dimension



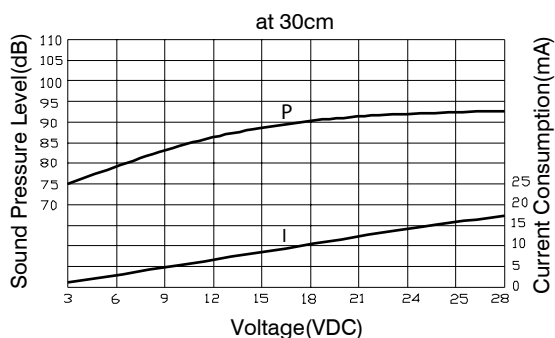
PC BOARD DRILL HOLE PATTERN

The current consumption and the sound pressure level are measured by using the recommended driving circuit shown in the right.

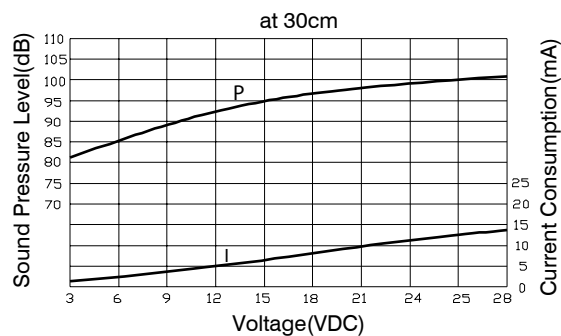


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



Shape

KPE-242



Shape

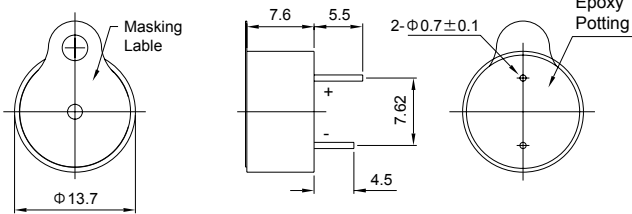
KPE-222
KPE-222H



Model Number	KPE-242
Rated Frequency (Hz)	4,100 ± 500
Operating Voltage Range (VDC)	3 ~ 16
Current Consumption (mA)	Max. 7@12VDC
Sound Pressure Level (dB)	Min. 70dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-30 ~ +80
Weight (Gram)	1.0
Material	Noryl (Black)

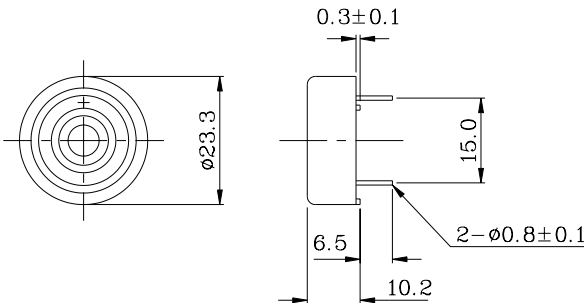
Model Number	KPE-222	KPE-222H
Rated Frequency (Hz)	3,200 ± 500	
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 13@12VDC	Max. 10@12VDC
Sound Pressure Level (dB)	Min. 75dB@30cm@12VDC	Min. 85dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	5.0	
Material	ABS UL-94 1/16" HB High Heat (Black)	

Dimension



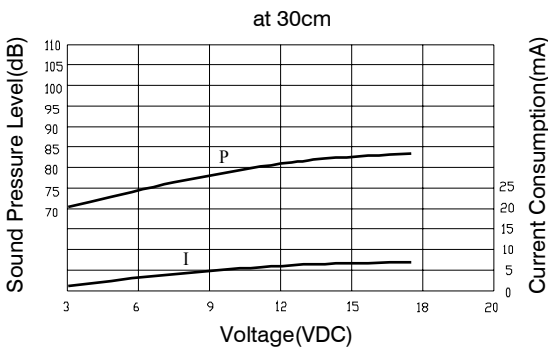
Tol : ±0.5 Unit : mm

Dimension

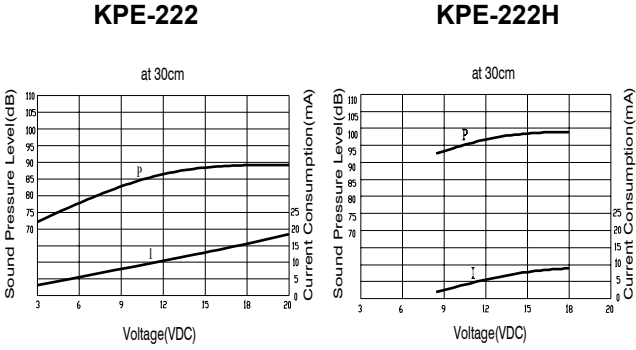


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



PIEZO INDICATOR (Pin Type)

A

Shape

KPE-222HS1



Shape

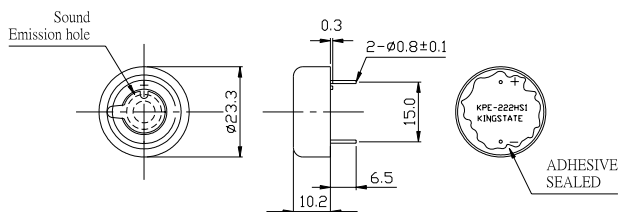
KPE-232
KPE-232H



Model Number	KPE-222HS1
Rated Frequency (Hz)	3,200 ± 500
Operating Voltage Range (VDC)	8 ~ 18
Current Consumption (mA)	Max. 10@12VDC
Sound Pressure Level (dB)	Min. 85dB@30cm@12VDC
Tone	Fast Pluse(3.0Hz±20%)
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	5.0
Material	ABS UL-94 1/16" HB High Heat (Black)

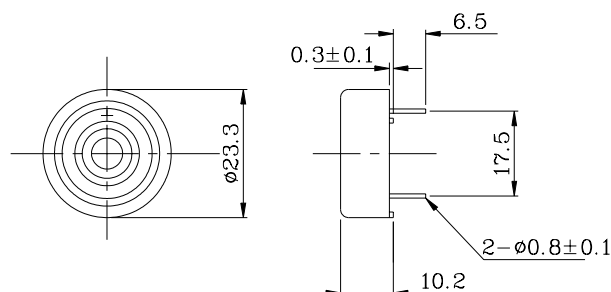
Model Number	KPE-232	KPE-232H
Rated Frequency (Hz)	3,200 ± 500	
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 13@12VDC	Max. 10@12VDC
Sound Pressure Level (dB)	Min. 75dB@30cm@12VDC	Min. 85dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	5.0	
Material	ABS UL-94 1/16" HB High Heat (Black)	

Dimension



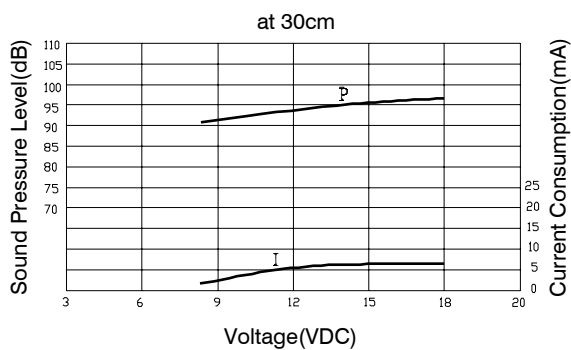
Tol : ±0.5 Unit : mm

Dimension

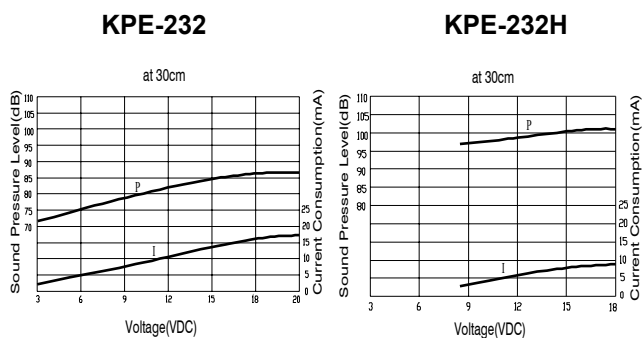


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



Shape

KPE-223



Shape

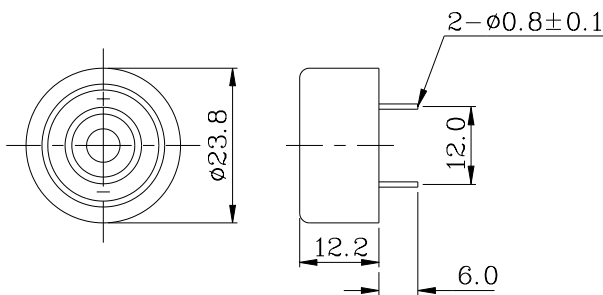
KPE-224



Model Number	KPE-223
Rated Frequency (Hz)	3,300 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 81dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	3.5
Material	ABS UL-94 1/16" HB High Heat (Black)

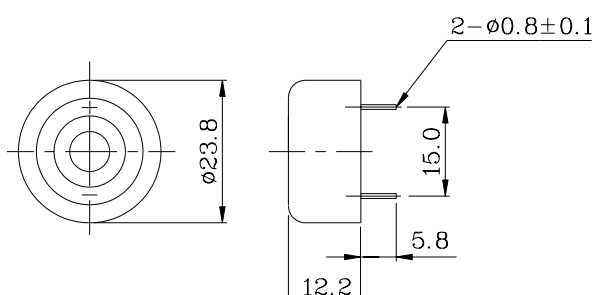
Model Number	KPE-224
Rated Frequency (Hz)	3,300 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 81dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	3.7
Material	ABS UL-94 1/16" HB High Heat (Black)

Dimension



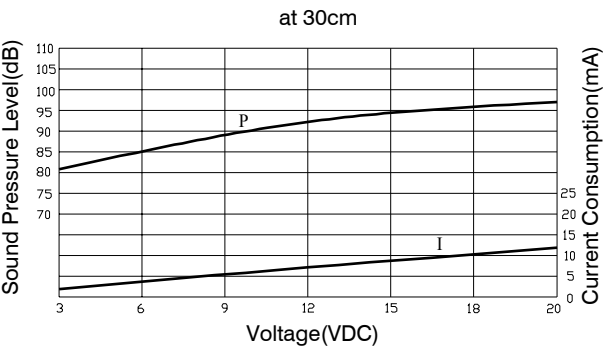
Tol : ±0.5 Unit : mm

Dimension

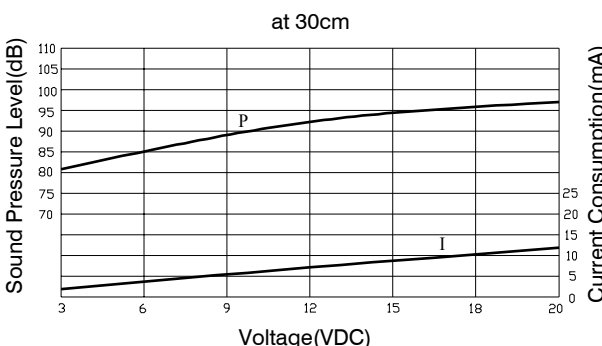


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



PIEZO INDICATOR (Pin Type)

A

Shape

KPE-238



Shape

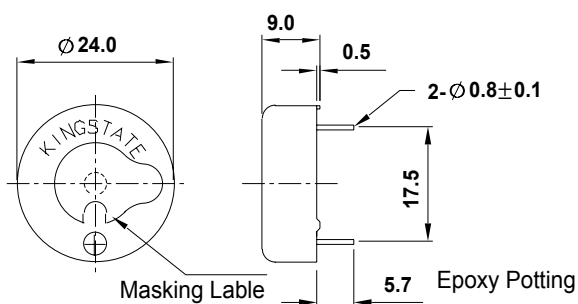
KPE-228



Model Number	KPE-238
Rated Frequency (Hz)	3,400 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max.15@12VDC
Sound Pressure Level (dB)	Min. 80dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	1.2
Material	ABS UL-94 1/16" HB High Heat (Black)

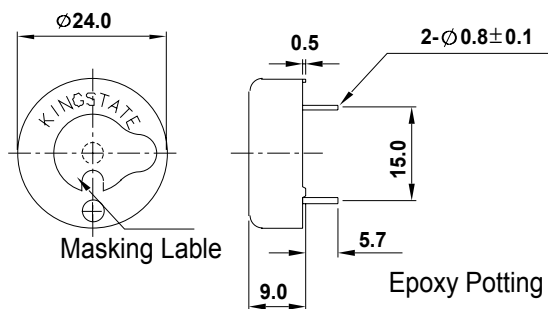
Model Number	KPE-228
Rated Frequency (Hz)	3,400 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max. 15@12VDC
Sound Pressure Level (dB)	Min. 80dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	1.2
Material	ABS UL-94 1/16" HB High Heat (Black)

Dimension



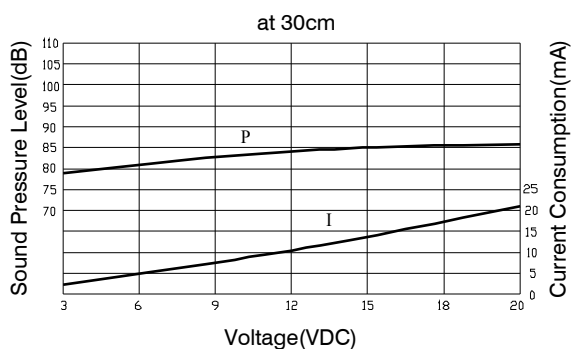
Tol : ±0.5 Unit : mm

Dimension

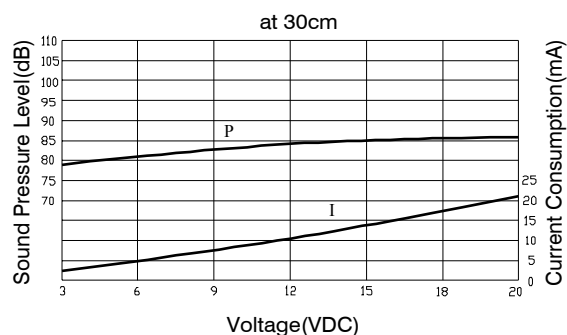


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



Shape

KPE-207
KPE-207H



Shape

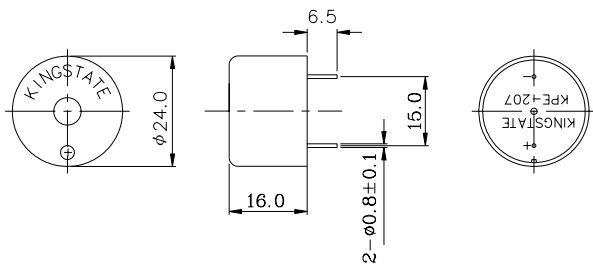
KPE-217
KPE-217H



Model Number	KPE-207	KPE-207H
Rated Frequency (Hz)	3,000 ± 500	
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 13@12VDC	Max. 11@12VDC
Sound Pressure Level (dB)	Min. 83dB@30cm@12VDC	Min. 89dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	4.5	
Material	ABS UL-94 1/16" HB High Heat (Black)	

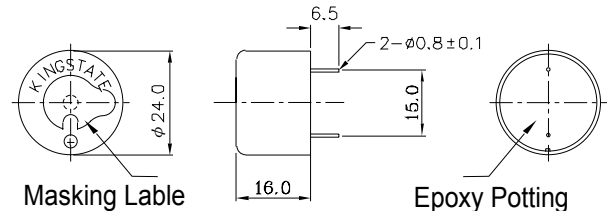
Model Number	KPE-217	KPE-217H
Rated Frequency (Hz)	3,000 ± 500	
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 13@12VDC	Max. 11@12VDC
Sound Pressure Level (dB)	Min. 83dB@30cm@12VDC	Min. 89dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	4.8	
Material	ABS UL-94 1/16" HB High Heat (Black)	

Dimension



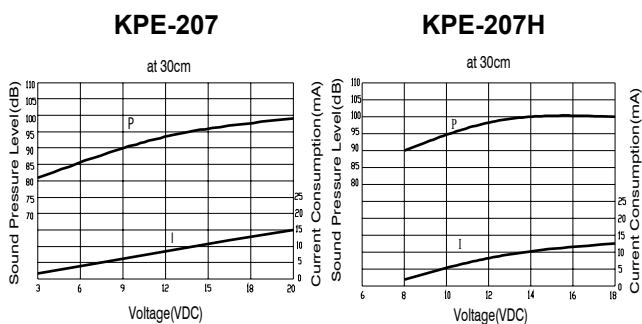
Tol : ±0.5 Unit : mm

Dimension

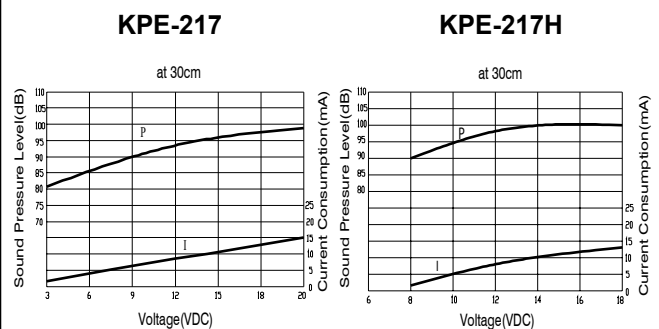


Tol : ±0.5 Unit : mm

Characteristic



Characteristic



PIEZO INDICATOR (Pin Type)

A

Shape

**KPE-208
KPE-208H**



Shape

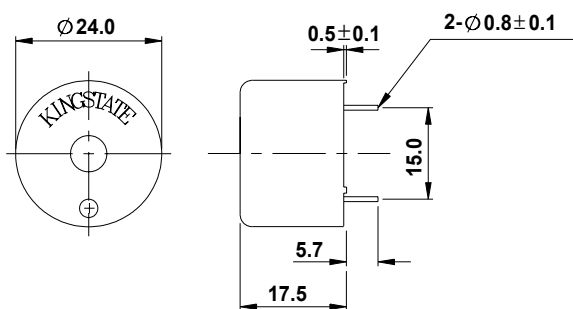
**KPE-218
KPE-218H**



Model Number	KPE-208	KPE-208H
Rated Frequency (Hz)	4,000 ± 500	3,500 ± 500
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 14@12VDC	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 83dB@30cm@12VDC	Min. 91dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	1.2	
Material	ABS UL-94 1/16" HB High Heat (Black)	

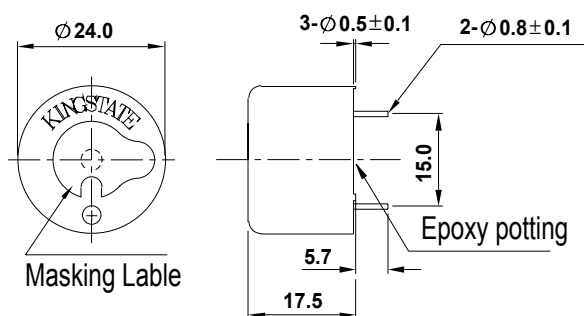
Model Number	KPE-218	KPE-218H
Rated Frequency (Hz)	3,800 ± 500	3,500 ± 500
Operating Voltage Range (VDC)	3 ~ 20	8 ~ 18
Current Consumption (mA)	Max. 15@12VDC	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 88dB@30cm@12VDC	Min. 91dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	1.2	
Material	ABS UL-94 1/16" HB High Heat (Black)	

Dimension



Tol : ±0.5 Unit : mm

Dimension

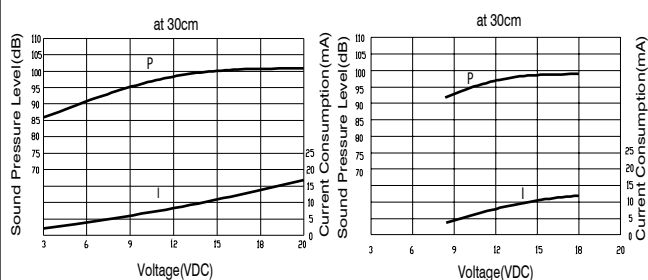


Tol : ±0.5 Unit : mm

Characteristic

KPE-208

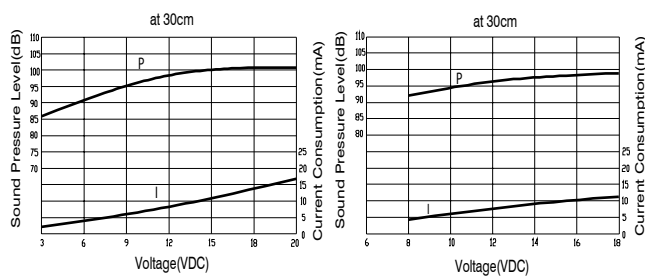
KPE-208H



Characteristic

KPE-218

KPE-218H



Shape

KPE-203



Shape

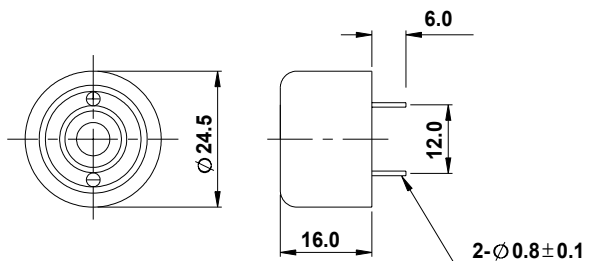
KPE-278



Model Number	KPE-203
Rated Frequency (Hz)	3,400 ± 500
Operating Voltage Range (VDC)	3 ~ 20
Current Consumption (mA)	Max. 9@12VDC
Sound Pressure Level (dB)	Min. 86dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	5.0
Material	ABS UL-94 1/16" HB High Heat (Black)

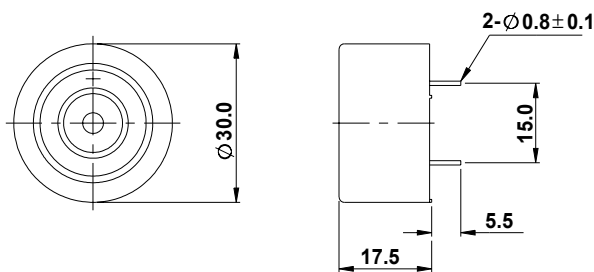
Model Number	KPE-278
Rated Frequency (Hz)	1,800 ± 500
Operating Voltage Range (VDC)	3 ~ 28
Current Consumption (mA)	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 77dB@30cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-30 ~ +80
Storage Temperature (°C)	-40 ~ +80
Weight (Gram)	5.6
Material	ABS UL-94 1/16" HB (Black)

Dimension



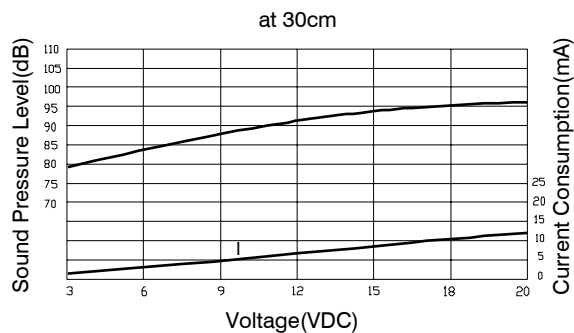
Tol: ±0.5 Unit: mm

Dimension

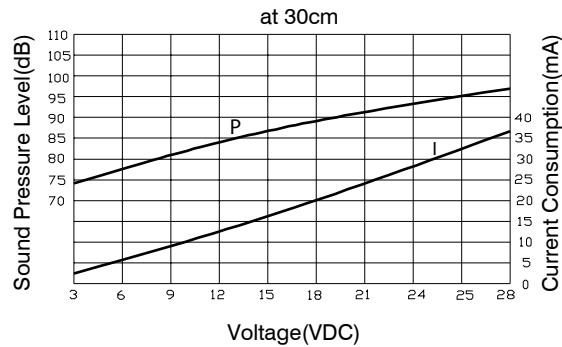


Tol: ±0.5 Unit: mm

Characteristic



Characteristic



PIEZO INDICATOR (Pin Type)

A

Shape

KPE-272
KPE-272H



Shape

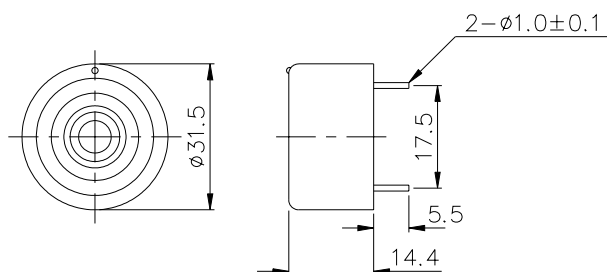
KPE-276
KPE-276H



Model Number	KPE-272	KPE-272H
Rated Frequency (Hz)	3,500 ± 500	
Operating Voltage Range (VDC)	3 ~ 28	8 ~ 18
Current Consumption (mA)	Max. 6@12VDC	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 88dB@30cm@12VDC	Min. 97dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	7.0	
Material	ABS UL-94 1/16" HB High Heat (Black)	

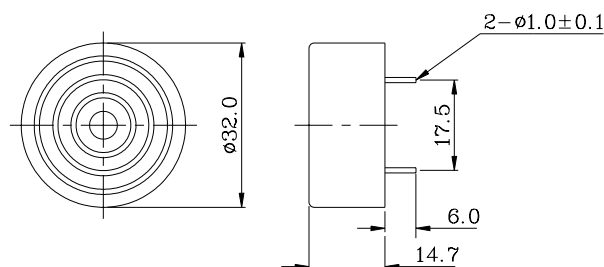
Model Number	KPE-276	KPE-276H
Rated Frequency (Hz)	2,700 ± 500	3,000 ± 500
Operating Voltage Range (VDC)	3 ~ 28	8 ~ 18
Current Consumption (mA)	Max. 6@12VDC	Max. 11@12VDC
Sound Pressure Level (dB)	Min. 79dB@30cm@12VDC	Min. 96dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +80	
Storage Temperature (°C)	-40 ~ +80	
Weight (Gram)	7.0	7.2
Material	ABS UL-94 1/16" HB (Black)	

Dimension



Tol : ±0.5 Unit : mm

Dimension

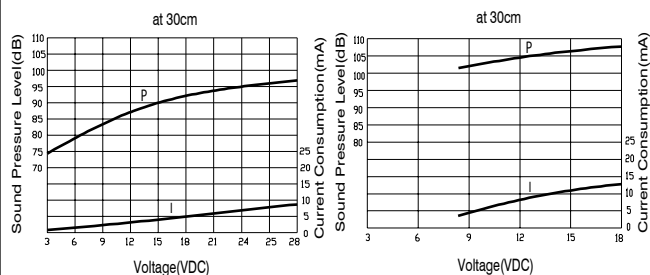


Tol : ±0.5 Unit : mm

Characteristic

KPE-272

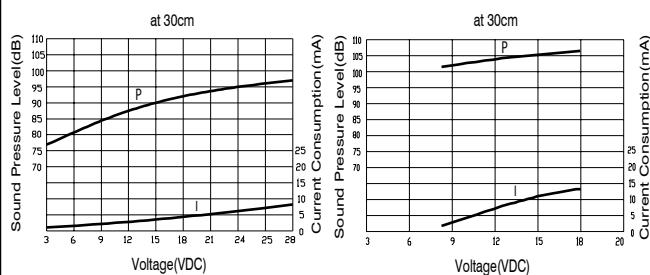
KPE-272H



Characteristic

KPE-276

KPE-276H



Shape

**KPE-352
KPE-352H**



Shape

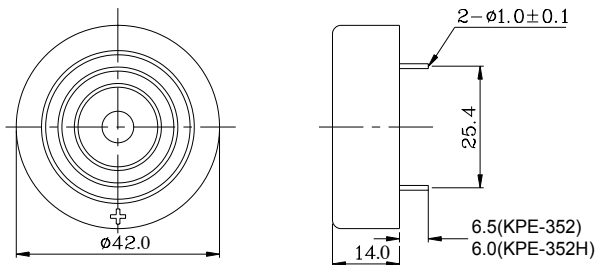
KPE-500



Model Number	KPE-352	KPE-352H
Rated Frequency (Hz)	2,800 ± 500	3,000 ± 500
Operating Voltage Range (VDC)	3 ~ 28	8 ~ 18
Current Consumption (mA)	Max. 10@12VDC	Max. 13@12VDC
Sound Pressure Level (dB)	Min. 89dB@30cm@12VDC	Min. 94dB@30cm@12VDC
Tone	Continuous	
Operating Temperature (°C)	-30 ~ +85	
Storage Temperature (°C)	-40 ~ +95	
Weight (Gram)	12.0	12.2
Material	ABS UL-94 1/16" HB High Heat (Black)	

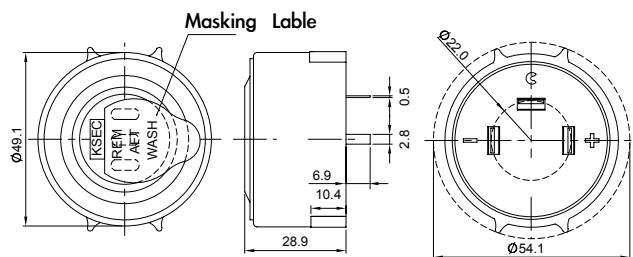
Model Number	KPE-500
Rated Frequency (Hz)	2,500 ± 500
Operating Voltage Range (VDC)	5 ~ 13
Current Consumption (mA)	Max. 60@12VDC
Sound Pressure Level (dB)	Min. 104dB@30cm@12VDC(85dB@3 meters)
Tone	Continuous
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	27.5
Material	ABS UL-94 1/16" HB High Heat (Black)

Dimension



Tol : ±0.5 Unit : mm

Dimension

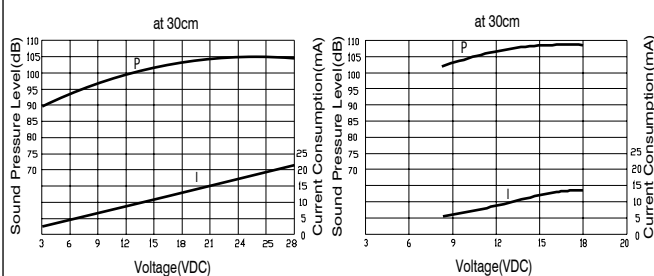


Tol : ±0.5 Unit : mm

Characteristic

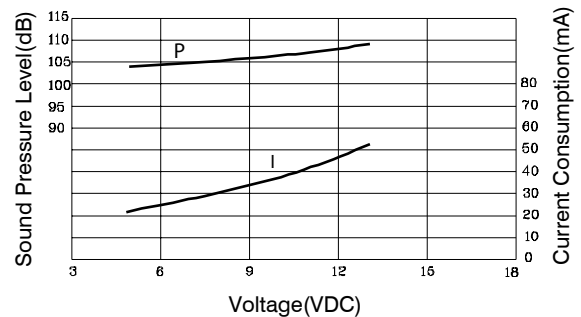
KPE-352

KPE-352H



Characteristic

at 30cm



PIEZO INDICATOR

A

Shape

KPE-209



K **U** **S**
E212139 & UE114

Shape

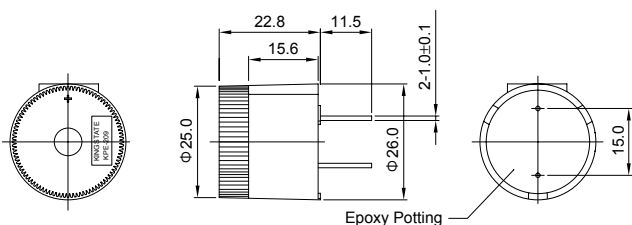
KPE-637



Model Number	KPE-209
Rated Frequency (Hz)	2,900 ± 500
Operating Voltage Range (VDC)	9 ~ 12
Current Consumption (mA)	Max. 35@12VDC
Sound Pressure Level (dB)	Min. 91dB@60cm@12VDC
Tone	Continuous
Operating Temperature (°C)	-20 ~ +65
Storage Temperature (°C)	-40 ~ +80
Weight (Gram)	41.0
Material	Noryl 94 V-0 (Black)

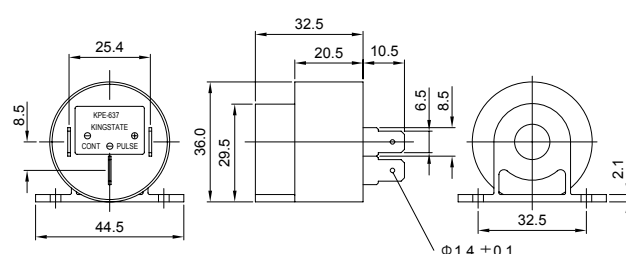
Model Number	KPE-637
Rated Frequency (Hz)	2,800 ± 500
Operating Voltage Range (VDC)	9 ~ 48
Current consumption (mA)	MAX 22 @ 48VDC
Sound Pressure Level (dB)	MIN 88dB@ 60cm@48VDC
Rated Voltage (VDC)	48
Tone	Continuous / Slow Pulse (1.2Hz ± 20%)
Operating Temperature (°C)	-30 ~ +85
Storage Temperature (°C)	-40 ~ +95
Weight (Gram)	27.0
Material	ABS UL-94 1/16" HB High Heat (Black)

Dimension



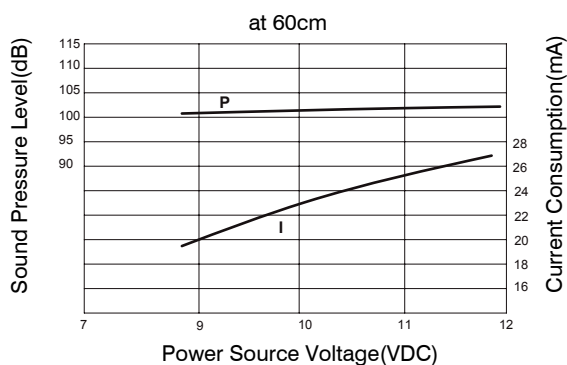
Tol : ±0.5 Unit : mm

Dimension



Tol : ±0.5 Unit : mm

Characteristic



Characteristic

