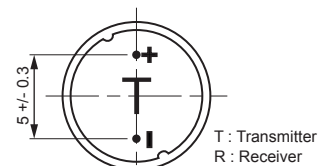
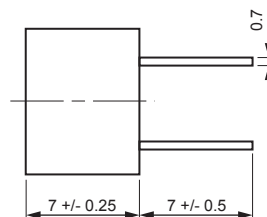
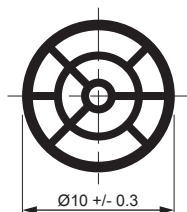


SERIES: UPO1007

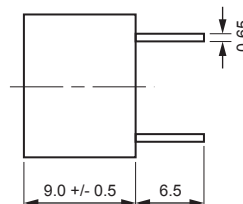
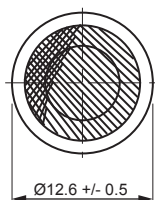


Unit : mm

Electrical Specifications

Part Number	T40B	R40B
Function	Transmitter	Receiver
Center Frequency	40 +/- 1 KHz	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-	Min. -70 dBA
Sound Pressure Level [at 10 Vrms]	Min. 103 dBA at 30 cm	-
Direction	Max. 80 Degree	Max. 80 Degree
Capacitance at 1KHz	2800 pF +/- 20%	2800 pF +/- 20%
Input Voltage	Max. 20 V p-p	-
Detectable Range	Min. 0.2 m & Max. 6 m	Min. 0.2 m & Max. 6 m
Operating Temperature	-20 ~ +70°C	-20 ~ +70°C

SERIES: UPO1309

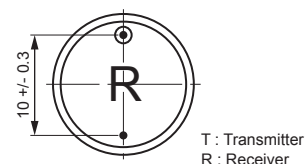
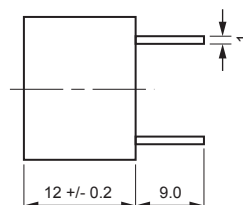
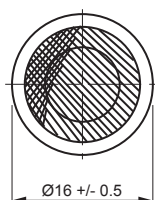


Unit : mm

Electrical Specifications

Part Number	T40B	R40B
Function	Transmitter	Receiver
Center Frequency	40 +/- 1 KHz	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-	Min. -75 dBA
Sound Pressure Level [at 10 Vrms]	Min. 110 dBA at 30 cm	-
Direction	Max. 80 Degree	Max. 80 Degree
Capacitance at 1KHz	2200 pF +/- 25%	2200 pF +/- 25%
Input Voltage	Max. 20 V p-p	-
Detectable Range	Min. 0.2 m & Max. 4 m	Min. 0.2 m & Max. 4 m
Operating Temperature	-20 ~ +70°C	-20 ~ +70°C

SERIES: UPO1612



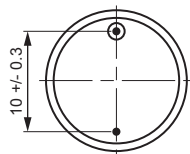
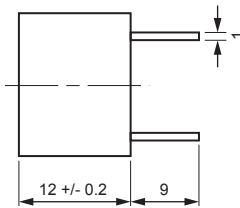
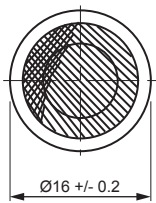
Unit : mm

Electrical Specifications

Part Number	T40S	R40S
Function	Transmitter	Receiver
Center Frequency	40 +/- 1 KHz	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-	Min. -65 dBA
Sound Pressure Level [at 10 Vrms]	Min. 115 dBA at 30 cm	-
Direction	Max. 50 Degree	Max. 50 Degree
Capacitance at 1KHz	2400 pF +/- 25%	2400 pF +/- 25%
Input Voltage	Max. 20 Vp-p	-
Detectable Range	Min. 0.2 m & Max. 4 m	Min. 0.2 m & Max. 4 m
Operating Temperature	-30 ~ +85°C	-30 ~ +85°C

OPEN STRUCTURE ULTRASONIC SENSOR

SERIES: USO1612

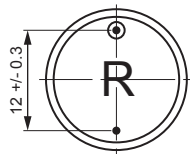
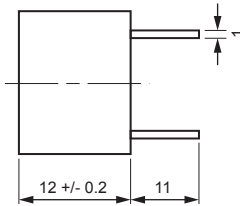
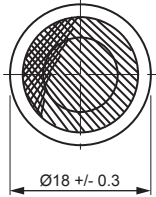


Unit : mm

Electrical Specifications

Part Number	40S
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -65 dBA
Sound Pressure Level [at 10 Vrms]	Min. 117 dBA at 30 cm
Direction	Max. 55 Degree
Capacitance at 1KHz	2400 pF +/- 25%
Input Voltage	Max. 150 Vp-p
Detectable Range	Min. - m & Max. 18 m
Operating Temperature	-30 ~ +85°C

SERIES: UPO1812



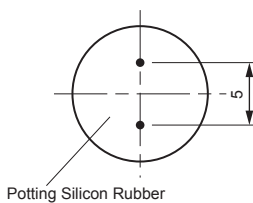
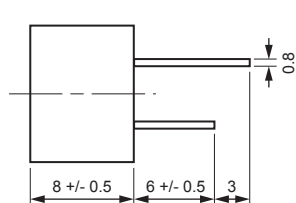
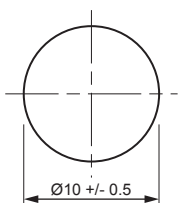
T : Transmitter
R : Receiver

Unit : mm

Electrical Specifications

Part Number	T25S	R25S
Function	Transmitter	Receiver
Center Frequency	25 +/- 1 KHz	25 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-	Min. -65 dBA
Sound Pressure Level [at 10 Vrms]	Min. 112 dBA at 30 cm	-
Direction	Max. 85 Degree	Max. 90 Degree
Capacitance at 1KHz	2400 pF +/- 25%	2400 pF +/- 25%
Input Voltage	Max. 20 Vp-p	-
Detectable Range	Min. 0.2 m & Max. 4 m	Min. 0.2 m & Max. 4 m
Operating Temperature	-30 ~ +85°C	-30 ~ +85°C

SERIES: USC1008

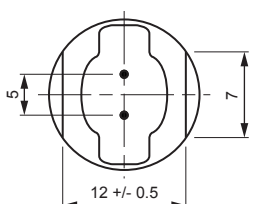
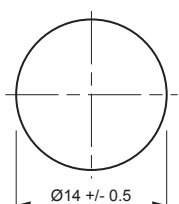


Unit : mm

Electrical Specifications

Part Number	40B
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -80 dBA
Sound Pressure Level [at 10 Vrms]	Min. 90 dBA at 30 cm
Direction	Max. 80 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 120 Vp-p
Detectable Range	Min. 0.2 m & Max. 2 m
Operating Temperature	-20 ~ +60°C

SERIES: USC1409

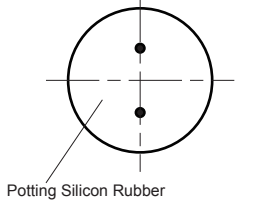
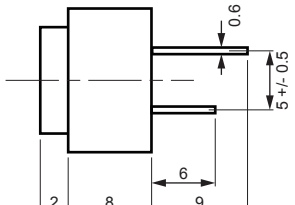
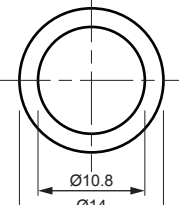
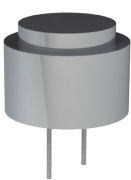


Unit : mm

Electrical Specifications

Part Number	40S
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -75 dBA
Sound Pressure Level [at 10 Vrms]	Min. 95 dBA at 30 cm
Direction	X-axis 120 +/- 15 Degree & Y-axis 60 +/- 15 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 100 Vp-p
Detectable Range	-
Operating Temperature	-30 ~ +85°C

SERIES: USC1410



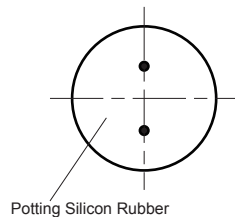
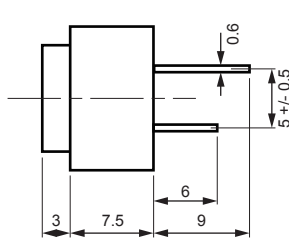
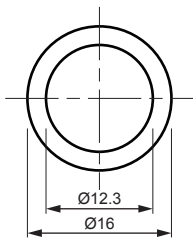
Unit : mm

Electrical Specifications

Part Number	40S
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -74 dBA
Sound Pressure Level [at 10 Vrms]	Min. 95 dBA at 30 cm
Direction	Max. 80 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 140 Vp-p
Detectable Range	Min. 0.2 m & Max. 2 m
Operating Temperature	-30 ~ +85°C

CLOSE STRUCTURE ULTRASONIC SENSOR

SERIES: USC1611

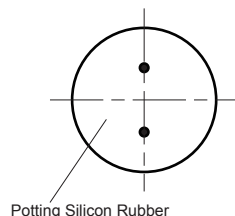
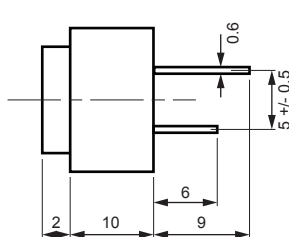
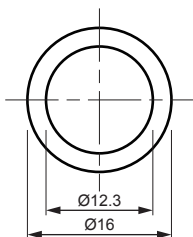
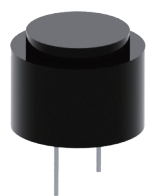


Unit : mm

Electrical Specifications

Part Number	40B
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -75 dBA
Sound Pressure Level [at 10 Vrms]	Min. 95 dBA at 30 cm
Direction	Max. 75 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 140 Vp-p
Detectable Range	Min. 0.2 m & Max. 4 m
Operating Temperature	-30 ~ +85°C

SERIES: USC1612

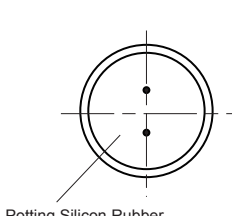
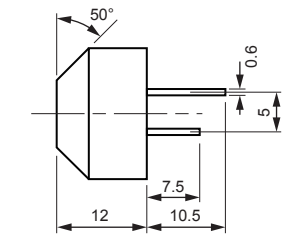
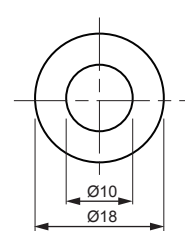


Unit : mm

Electrical Specifications

Part Number	40B
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -75 dBA
Sound Pressure Level [at 10 Vrms]	Min. 95 dBA at 30 cm
Direction	Max. 75 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 120 Vp-p
Detectable Range	Min. 0.2 m & Max. 4 m
Operating Temperature	-30 ~ +85°C

SERIES: USC1812

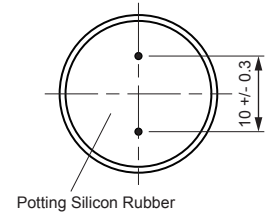
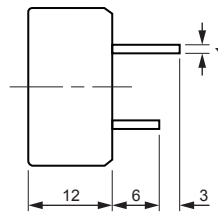
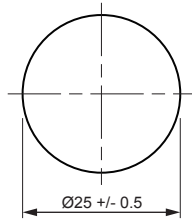
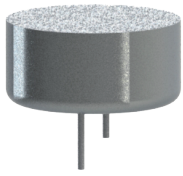


Unit : mm

Electrical Specifications

Part Number	40B
Function	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -70 dBA
Sound Pressure Level [at 10 Vrms]	Min. 100 dBA at 30 cm
Direction	Max. 80 Degree
Capacitance at 1KHz	2000 pF +/- 25%
Input Voltage	Max. 140 Vp-p
Detectable Range	-
Operating Temperature	-40 ~ +85°C

SERIES: UPC2512

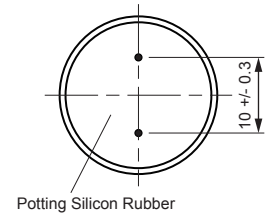
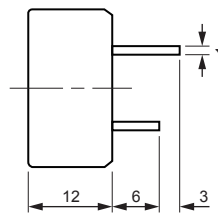
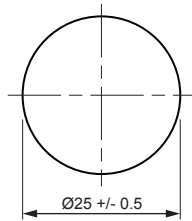
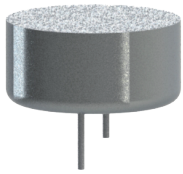


Unit : mm

Electrical Specifications

Part Number	T40S	T25S	R40S
Function	Transmitter	Transmitter	Receiver
Center Frequency	40 +/- 1 KHz	25 +/- 1 KHz	40 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-	-	Min. -73 dBA
Sound Pressure Level [at 10 Vrms]	Min. 105 dBA at 30 cm	Min. 100 dBA at 30 cm	-
Direction	Max. 60 Degree	Max. 70 Degree	Max. 60 Degree
Capacitance at 1KHz	2000 pF +/- 25%	2000 pF +/- 25%	2000 pF +/- 25%
Input Voltage	Max. 30 Vp-p	Max. 30 Vp-p	-
Detectable Range	-	-	-
Operating Temperature	-30 ~ +85°C	-30 ~ +85°C	-30 ~ +85°C

SERIES: USC2512



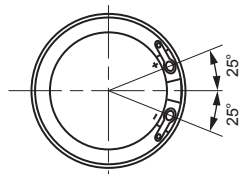
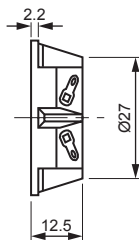
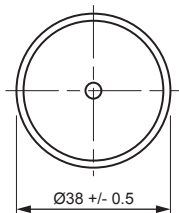
Unit : mm

Electrical Specifications

Part Number	40S	22S
Function	Transmitter & Receiver	Transmitter & Receiver
Center Frequency	40 +/- 1 KHz	22 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	Min. -73 dBA	Min. -75 dBA
Sound Pressure Level [at 10 Vrms]	Min. 110 dBA at 30 cm	Min. 100 dBA at 30 cm
Direction	Max. 30 Degree	Max. 70 Degree
Capacitance at 1KHz	2000 pF +/- 25%	2000 pF +/- 25%
Input Voltage	Max. 30 Vrms	Max. 30 Vrms
Detectable Range	-	-
Operating Temperature	-30 ~ +85°C	-30 ~ +85°C

ULTRASONIC SPEAKER

ULTRASONIC SPEAKER

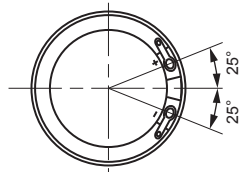
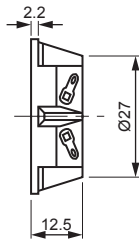
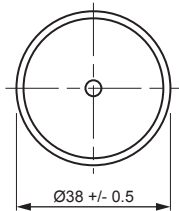


Unit : mm

Electrical Specifications

Part Number	USPK3813T
Function	Transmitter
Center Frequency	25 +/- 5 KHz
Sensitivity [0 dB =1V / ubar]	-
Sound Pressure Level [at 5.5 Vp-p]	Min. 100 dBA at 50 cm
Input Voltage	Max. 30 Vp-p
Operating Temperature	-20 ~ +70°C
Housing	ABS
Colour	Black

ULTRASONIC SPEAKER

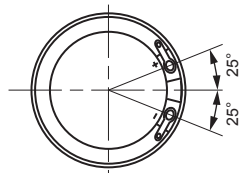
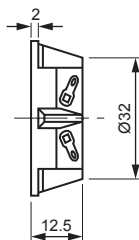
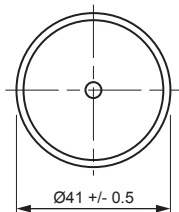


Unit : mm

Electrical Specifications

Part Number	USPK3813TU
Function	Transmitter
Center Frequency	25 +/- 5 KHz
Sensitivity [0 dB =1V / ubar]	-
Sound Pressure Level [at 5.5 Vp-p]	Min. 100 dBA at 50 cm
Input Voltage	Max. 30 Vp-p
Operating Temperature	-20 ~ +70°C
Housing	ABS
Colour	Black with Undertint

ULTRASONIC SPEAKER

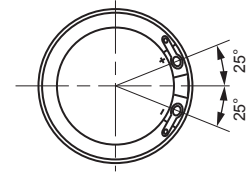
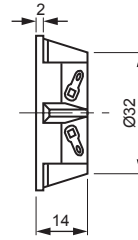
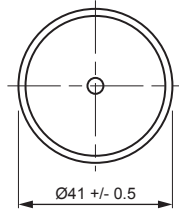


Unit : mm

Electrical Specifications

Part Number	USPK4113T
Function	Transmitter
Center Frequency	22 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-
Sound Pressure Level [at 2.83 Vrms]	Min. 90 dBA at 50 cm
Input Voltage	Max. 10 Vrms
Operating Temperature	-10 ~ +50°C
Housing	ABS
Colour	Black

ULTRASONIC SPEAKER

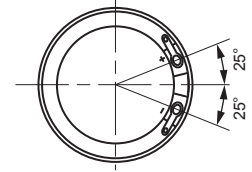
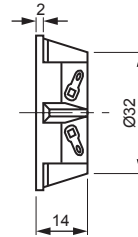
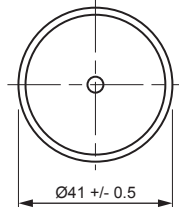


Unit : mm

Electrical Specifications

Part Number	USPK4114T
Function	Transmitter
Center Frequency	22 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-
Sound Pressure Level [at 2.83 Vrms]	Min. 90 dBA at 50 cm
Input Voltage	Max. 10 Vrms
Operating Temperature	-10 ~ +50°C
Housing	ABS
Colour	Black

ULTRASONIC SPEAKER

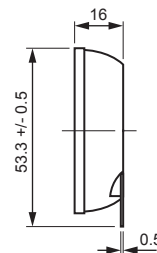
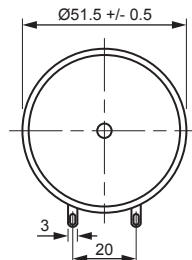


Unit : mm

Electrical Specifications

Part Number	USPK4114TU
Function	Transmitter
Center Frequency	20 +/- 3 KHz
Sensitivity [0 dB = 1V / ubar]	-
Sound Pressure Level [at 2.83 Vrms]	Min. 90 dBA at 50 cm
Input Voltage	Max. 10 Vrms
Operating Temperature	-20 ~ +70°C
Housing	ABS
Colour	Black with Undertint

ULTRASONIC SPEAKER



Unit : mm

Electrical Specifications

Part Number	USPK5216T
Function	Transmitter
Center Frequency	22 +/- 1 KHz
Sensitivity [0 dB = 1V / ubar]	-
Sound Pressure Level [at 10 Vp-p]	Min. 92 dBA at 10 cm
Input Voltage	Max. 30 Vp-p
Operating Temperature	-20 ~ +70°C
Housing	PBT
Colour	Black