



High sensitivity and reliability
Sharp Beam Angle
Using High precision measurement application

Ultrasonic Sensor

- High Frequency Type



■ Feature

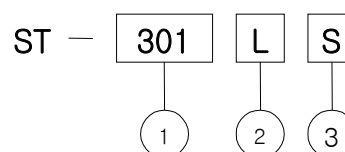
- Epoxy reinforced acoustic matching layer used type
- Sharp directivity and high precise measurement
- Water and dust proof type(IP65)
- Dual type (transmitting and receiving)
- High sensitivity and reliability
- Wide operating temperature range(-40 ~ 85℃)

■ Applications

These sensors can be used for non contact detection of various indoor and outdoor applications.

- Robot
- Parking meter
- Distance meter
- Water or liquid level meter
- Intruder alarm
- Auto door
- Approach switch

■ Part numbering



- ① : design serial number
- ② : terminal type
L : lead pin type
C : connector type
W : wire type
- ③ : special code

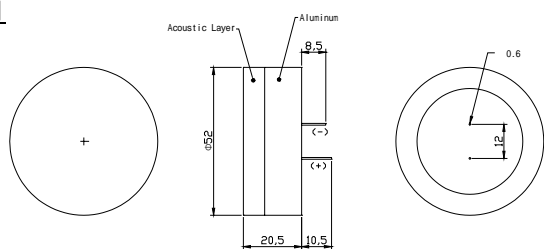
■ Characteristics

Part number	ST-301	ST-302	ST-303
Nominal Frequency [KHz]	70	135	200
Bend width (FOM) [KHz]	10	←	←
Overall sensitivity ⁽¹⁾ (Figure of Merit)	-52 distance : 50cm	-52 distance : 30cm	-54 distance : 20cm
Capacitance [pF] ± 20%	1,400	800	300
Total Beam angle [°] (-6dB down)	8	←	←
Detectable range [m]	0.5 ~ 6	0.3 ~ 3	0.2 ~ 1.3
Operating Temp. range [°C]	-30 ~ 60	←	←
Storage Temperature [°C]	-40 ~ 80	←	←
Resolution [mm]	3	2	1
Matching Layer	Resin with filler	←	←
Dimension [mm] [Diameter x thickness]	Ø52 x 20.5h	Ø32 x 14h	Ø20 x 10.5h
Weight [g]	88	22	7
Maximum Input Voltage [v] at 10% duty cycle	140	120	←

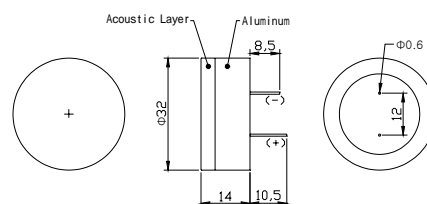
(1) Input voltage = 20Vp-p, Pulse rate = 20, Sin wave, Target size : 30 x 30cm
All specifications taken typical at 25°C

■ Dimensions

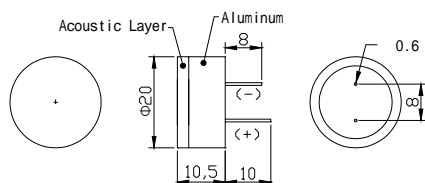
ST-301



ST-302



ST-303



■ Beam Angle (Typical)

