



### **Applications:**

This specification covers the water proof type ultrasonic ceramic transducer which are used for ultrasonic ranging and parking sensor of automobile.

#### Features:

- · Open structure and dual use
- · Compact and light weight
- · High sensitivity and sound pressure
- · Less power consumption
- High reliability

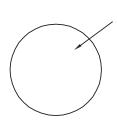
#### **Technical Terms:**

No	ltem	Specification
1	Part Number	MCUSD14A40S09RS-30C
2	Construction	Water Proof
3	Using Method	Dual Use
4	Centre Frequency	40 ± 1kKz
5	Sound Pressure Level (dB)	≥97 (30cm/10V rms)
6	Sensitivity (dB)	≥-75dB/V/µbar
7	Beam pattern	110 × 50°
8	Capacitance (pF)	2,500 ± 25% at1kHz
9	Operating Temperature Range	-40°C to 85°C
10	Storage Temperature Range	-40°C to 85°C
11	Allowable Input Voltage (Vp-p)	160V
12	Housing Material	Aluminium

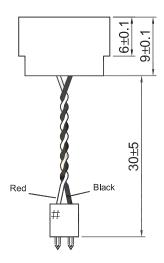




### **Drawing:**

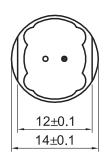


Aluminum case surface NON Hexavalent Chrome for anti-corrosion Epoxy primer only(no color paint)



Lead wire AWG30 Red,Black connector pitch 2mm

# EIAJ code

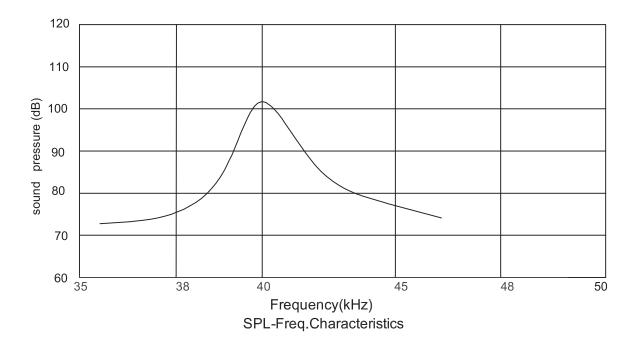


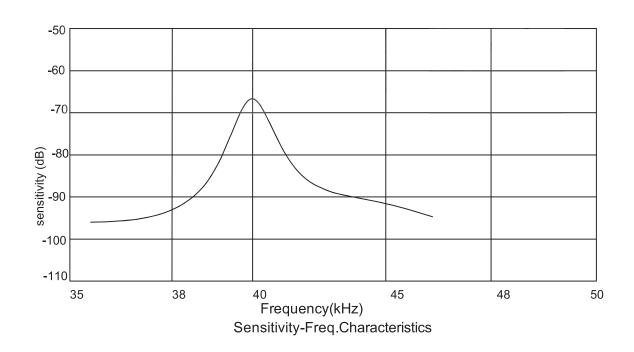
Dimensions: Millimetres





### **Beam Pattern:**

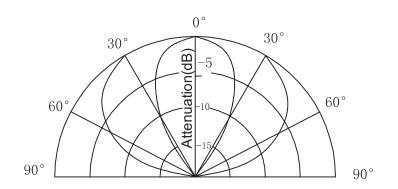








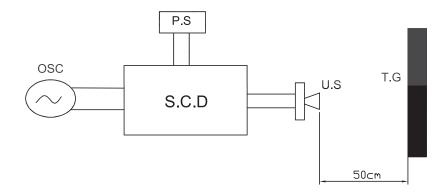




Direcivity in Overall Sensitivity

### **Test Circuit:**

### Echo&Rest.Resonant Time test circuit



OSC : Oscillator P.S : Power supply

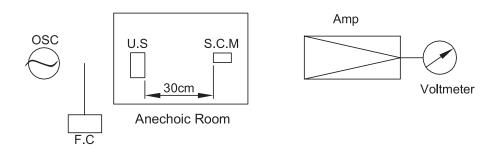
S.C.D : Special circuit diagram U.S : Ultrasonic Sensor

T.G : Target

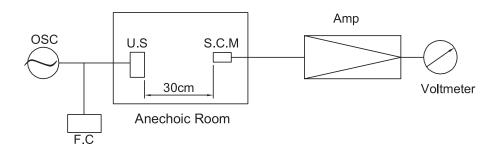




## S.P.L test circuit



## S.P.L test circuit



#### **Part Number Table**

Description	Part Number
Transceiver, 40kHz, 14mm, Metal	MCUSD14A40S09RS-30C

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