

# Piezo Ceramic Speakers

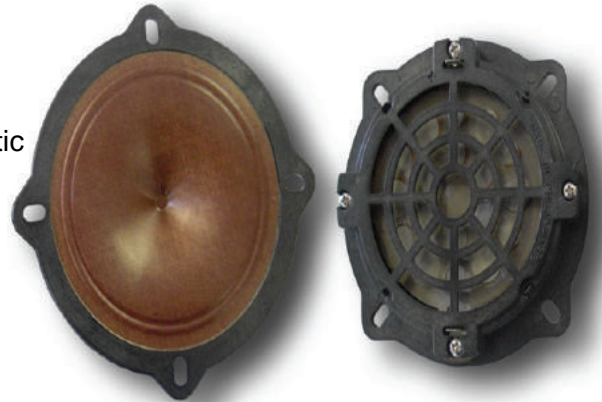
## Harsh Environment Voice Capable

## KSN 1103A

The KSN1103A is designed for application that require a broad frequency range, small size, light weight and rugged speaker. Because it is ultra thin and resistant to wide environmental changes, the KSN1103A is an ideal speaker for portable, automotive, industrial or military applications.

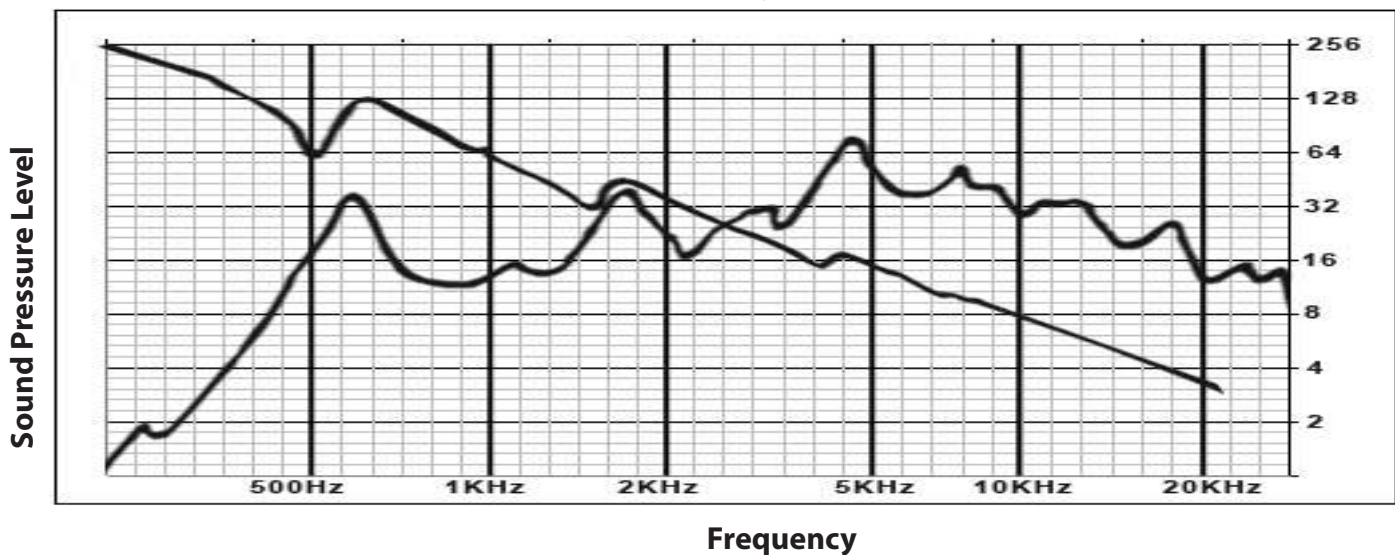
A piezo ceramic driver allow the KSN1103A to be much thinner, smaller and lighter than the conventional dynamic speaker, thus reducing the problems associated with size, weight, and stray magnetic fields. There are no magnetic materials in the construction. Reliability is greatly improved since there cannot be a rubbing voice call from a warped cone or from contaminants in the air gap. The low dynamic mass of the drive mechanism gives the speaker a better transient response that can be obtained with a conventional dynamic speaker.

A high strength phenolic cone provides the resistance to humidity needed for the harsh environments. Piezo Ceramic speakers are impervious to normal humidity variations and are durable under a variety of external shock, vibrations and stress condition. As a result, Motorola piezo ceramic speakers area capable of quality quality performance as long as they are operated within their design specifications.



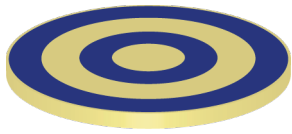
**KSN 1103A**

### Frequency Response



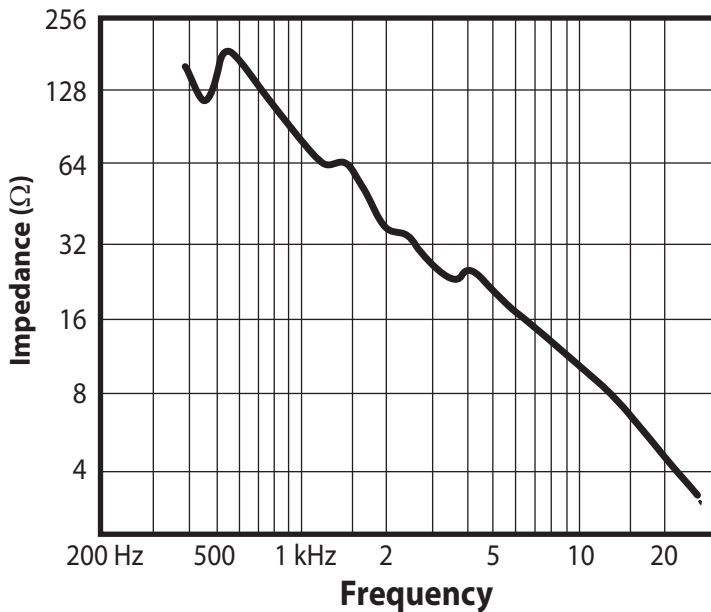
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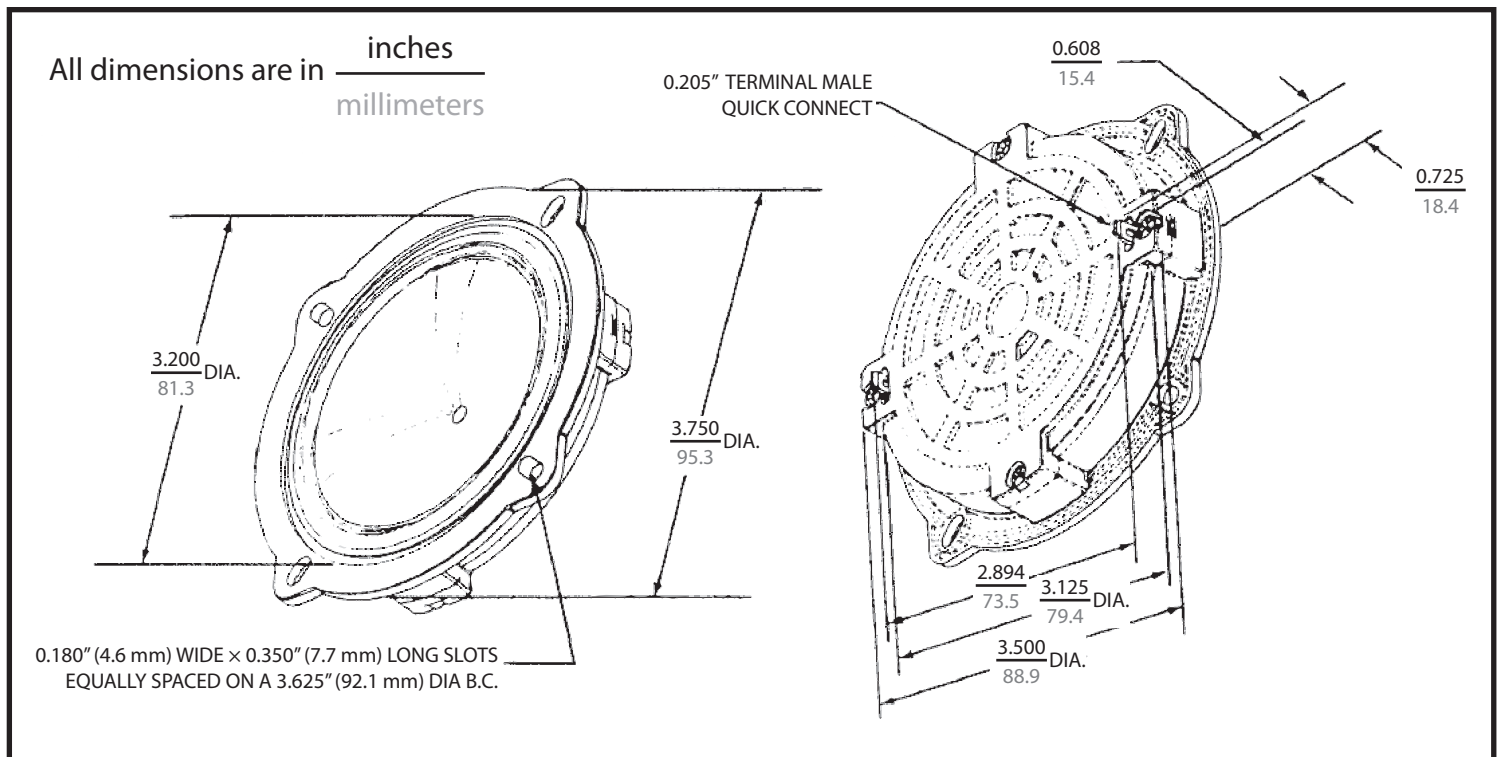
# Piezo Ceramic Speakers

## KSN 1103A Specifications



- Frequency Response:** 450 - 20,000 Hz
- Average Sensitivity:** 86 dB at 1/2 mW
- Maximum Power Handling Capacity:** 50 W (EIA RS426) (8 Ω system reference)
- Weight:** 1.1 oz (33 g)
- Shock:** 1000 G, 1 ms
- Temperature:** -40 to 105 °C (1103A only)
- Humidity:** 100% RH (MIL STD 810C; Method 509.1; Salt Fog) (1103A only)
- Typical Impedance:** Appears as a 1.5 μF capacitor

## KSN 1090A/1103A Dimensions



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