ABSTRACT

SILICON PIEZOELECTRIC SPEAKER

The invention is the formation of a piezoelectric speaker from a silicon on insulator (SOI) wafer. The invention also includes beneficial speaker design features. In particular, the speaker diaphragm is electrically isolated by etching an isolating trench in the diaphragm layer and an undercut is formed beneath the diaphragm layer to increase the effective area of the diaphragm. The undercut may be formed using a dry gaseous alcohol etching technique.