

BULK ACOUSTIC RESONATOR, ACOUSTIC FILTER, AND ELECTRONIC DEVICE

ABSTRACT

Embodiments of this application relate to the field of semiconductor technologies, and provide a bulk acoustic resonator, an acoustic filter, and an electronic device, to improve performance of the acoustic filter. The bulk acoustic resonator includes a piezoelectric material layer, an interdigital transducer, and a dielectric layer. The interdigital transducer is disposed on the piezoelectric material layer. The interdigital transducer includes a first busbar and a second busbar that are disposed opposite to each other, a plurality of first electrodes, and a plurality of second electrodes. The plurality of first electrodes sequentially protrude from the first busbar to the second busbar along an extension direction of the first busbar. The plurality of second electrodes sequentially protrude from the second busbar to the first busbar along an extension direction of the second busbar. The plurality of first electrodes and the plurality of second electrodes are sequentially arranged in a staggered manner between the first busbar and the second busbar. The dielectric layer covers the piezoelectric material layer and the interdigital transducer, and thicknesses of a part, of the dielectric layer, located between at least one pair of adjacent first electrode and second electrode fluctuate.

Fig. 3b