

ACOUSTIC FILTER, PRODUCTION METHOD THEREFOR, AND ELECTRONIC DEVICE

ABSTRACT

Embodiments of this application provide an acoustic filter, a production method therefor, and an electronic device, to relieve impact of a transverse mode excited in an acoustic resonator. The acoustic filter includes a piezoelectric substrate and an interdigital transducer located on a side of the piezoelectric substrate. The interdigital transducer includes a first bus bar and a second bus bar. An edge region, a gap region, a central region, and a slant region that are arranged in a first direction are included between the first bus bar and the second bus bar. Parts that are of a first electrode finger and that are located in the edge region, the gap region, and the central region are parallel to the first direction, and a part that is of the first electrode finger and that is located in the slant region is slanted relative to both the first direction and a second direction. A sound speed of an excited surface acoustic wave at the part that is of the first electrode finger and that is located in the slant region is reduced, so that the part forms a waveguide, to adjust charge distribution of an interdigital electrode and suppress excitation of the transverse mode. Based on the foregoing disposal, only extension directions of parts of the first electrode fingers need to be adjusted. This helps reduce an area occupied by a resonator.

FIG. 14