ABSTRACT

PIEZOELECTRIC THIN FILM RESONATOR, FILTER AND DUPLEXER

A piezoelectric thin film resonator includes: a substrate; a piezoelectric film located on the substrate; a lower electrode and an upper electrode facing each other across at least a part of the piezoelectric film; and an insertion film that is inserted into the piezoelectric film, is located in at least a part of an outer periphery region in a resonance region in which the lower electrode and the upper electrode face each other across the piezoelectric film, and is not located in a center region of the resonance region.

Fig. 1C