

ABSTRACT

The present invention provides a piezoelectric vibration device utilizing a thickness-shear vibration available for communication devices or the like.

5 The piezoelectric vibration device according to the present invention has a structure wherein at least one of each peripheral zone of an input electrode (21) and an output electrode (22), or a common electrode (23), where the non-harmonic overtone mode is relatively strongly excited, is
10 partially provided with either a weight reducing portion (231, 232) or a weight adding portion.

 Moreover, an area of the common electrode (23) is larger than a total area of the input electrode (21) and the output electrode (22), and either the weight reducing
15 portion (231, 232) or the weight adding portion reaches the common electrode (23) opposed to the input electrode (21) and the output electrode (22).

 Preferably, the common electrode formed on one principal plane of a quartz plate (1) is twice to 10 times as
20 thick as the input electrode (21) and the output electrode (22) formed on the other principal plane.

 As an electrode material, any of gold, silver, or a metal material mainly composed of gold or silver is employed, whereby the spurious vibration mode generated
25 near the principal vibration is restrained, the pass band

characteristics are more excellent and wider, and the guarantee attenuation characteristics in the portions outside of the pass band are enhanced.

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