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Chiu et al.(10) **Pub. No.: US 2024/0237539 A1**(43) **Pub. Date: Jul. 11, 2024**(54) **PACKAGE STRUCTURE OF
PIEZOELECTRIC MICROMACHINED
ULTRASONIC TRANSDUCER**(52) **U.S. Cl.**
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A package structure of a piezoelectric micromachined ultrasonic transducer includes a silicon substrate, a first protective layer, a piezoelectric composite film, a first metal layer, a second metal layer, a first pad, a second pad and a second protective layer. The silicon substrate is provided with a first through hole and a second through hole. The first protective layer is provided with a groove, a first communication hole and a second communication hole. The piezoelectric composite film includes a first electrode layer and a second electrode layer respectively filling the first communication hole and the first through hole, and the second communication hole and the second through hole so as to be connected to the first metal layer and the second metal layer. A surface of the second protective layer away from the piezoelectric composite film is a flat surface.

