

ABSTRACT**MOVABLE STRUCTURE AND OPTICAL SCANNING MIRROR
USING SAME**

In a semiconductor mechanical structure, hinges may not be broken even when a mechanical shock is applied from outside, and thus, crashworthy is enhanced. A light scanning mirror (1) comprises a moving plate (2), a twin hinges (3) constituting an axis of swing motion of the moving plate (2) wherein an end of each hinge is connected to both ends of the moving plate (2), a stationary frame (4) which is disposed to surround peripheries of the moving plate (2) and supports another end of each of the twin hinges (3), and stoppers (6) formed on the stationary frame (4). When the moving plate (2) displaces in a lateral direction, the stopper (6) contacts a side end portion of a recess (2e) of the moving plate (2), so that the displacement of the moving plate (2) in the lateral direction is restrained. Thereby, the breakage of the hinges (3) is prevented even when the mechanical shock is applied from outside.

Fig. 1