REPAIRABLE FLIP CHIP SEMICONDUCTOR DEVICE WITH EXCELLENT PACKAGING RELIABILITY AND METHOD OF MANUFACTURING SAME

ABSTRACT

A flip chip semiconductor is manufactured by preparing a semiconductor chip (13) and a multilayer plate (11). The semiconductor chip (13) has a group of solder bumps (14) disposed on and joined to a surface thereof in a predetermined pattern. The multilayer plate (11) includes a second electrically conductive layer (10) and first (19) and third (19′) metal layers on either side of the second layer (10). The first (19) and third (19′) metal layers are etched to form a group of posts (12, 12′) matching the solder bumps (14). The solder bumps (14) are melted to join to the etched posts (12, 12′) and the second layer (10) is cut to produce separate multilayer posts.

Fig. 2g