Abstract

SEMICONDUCTOR DEVICE AND METHOD OF PROVIDING COMMON VOLTAGE BUS AND WIRE BONDABLE REDISTRIBUTION

A semiconductor wafer contains a plurality of semiconductor die. The wafer has contact pads formed over its surface. A passivation layer is formed over the wafer. A stress buffer layer is formed over the passivation layer. The stress buffer layer is patterned to expose the contact pads. A metal layer is deposited over the stress buffer layer. The metal layer is a common voltage bus for the semiconductor device in electrical contact with the contact pads. An adhesion layer, barrier layer, and seed layer is formed over the wafer in electrical contact with the contact pads. The metal layer is mounted to the seed layer. Solder bumps or other interconnect structures are formed over the metal layer. A second passivation layer is formed over the metal layer. In an alternate embodiment, a wirebondable layer can be deposited over the metal layer and wirebonds connected to the metal layer. (Fig. 5b)