162162

1/10/2002

G00002

IMPROVED THIN AND HEAT RADIANT SEMICONDUCTOR PACKAGE AND METHOD FOR MANUFACTURING

ABSTRACT OF THE DISCLOSURE

A semiconductor package which is improved in thinness and heat radiation and a method for making the same. The package includes a semiconductor chip electrically connected to leads of a leadframe via input and output bond pads. The leadframe may have a ground ring formed therein. The leads and semiconductor chip are at least partially encapsulated by an encapsulant. The semiconductor chip and leads have bottom surfaces which are externally exposed to improve heat radiation and reduce the thickness of the package. The package is made by placing the leadframe having leads onto adhesive tape, affixing a semiconductor chip into an open space on the leadframe, pressurizing the leadframe and chip downwardly for securement to the adhesive tape, electrically connecting input bond pads and output bond pads on the chip to the leads; at least partially encapsulating the leads and semiconductor chip; removing the tape from the bottom surfaces of the leads and chip; and cutting the leadframe to form the package. In an alternate embodiment, a chip paddle is connected to the leadframe and the semiconductor chip is secured to the chip paddle via an adhesive.

FIGURE 1A