This Sheet Has Been Replaced

Abstract of the Disclosure

A method for fabricating and especially for encapsulating a semiconductor device (10) in a plastic package is disclosed. In accordance with one embodiment of the invention the method includes steps of providing an encapsulation mold (34, 36) having a first chamber (42) and a second chamber (40), with the second chamber (40) spaced outwardly from and substantially surrounding the first chamber (42). The first chamber (42) is shaped to receive a removable insert (46, 47). An insert (46, 47) is selected for the particular body type and style which is desired and that insert is secured in the first chamber. The insert (46, 47) has a cavity (38) which is shaped to define the desired encapsulated device package body (16). A lead frame (26) is provided including a bonding area (30) and a plurality of leads, each lead having a inner portion near the bonding area and an outer portion extending outwardly from the bonding area. A semiconductor device die (28) is secured to the lead frame (26) and the lead frame with the die attached is aligned within the encapsulation mold to place the semiconductor device die and the inner ends of the leads within the cavity (38) defined by the the inserts (46, 47). The outer ends of the leads extend through the second chamber (40). Plastic material is then injected into the mold to form the device package body (16) about the semiconductor device die. The package body is shaped by the cavity (38) and the inserts (46, 47) and the carrier ring (22) is shaped by the second chamber (40).

FIG. 5 accompanies this abstract.