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POLYMER BUMPS FOR TRACE AND SHOCK PROTECTION**ABSTRACT**

A hard disk drive (11) has actuator arms (21) with a load beam (27) or suspension (81) extending from one end. Each suspension (82) carries an integrated lead layer with electrical traces which are connected to a magnetic read/write heads for interacting with magnetic disks (15) in the disk drive (11). Each suspension (81) also has a pair of polymer pads (51, 53) on each side of the traces (45). Each pad (51) has a series of bumps (55) which give the pads (51, 53) a greater thickness than the lead layer (41) for preventing contact between the traces (45), suspensions (82) and magnetic disks (15) during shock vibration. The pads (51, 53) also prevent contact between the trace conductors (45) and the head separator during the separation process.

Fig.2:



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