

Title (en)
Electrical connector for circuit board

Title (de)
Elektrischer Steckverbinder für Leiterplatte

Title (fr)
Connecteur électrique pour carte de circuit imprimé

Publication
EP 1109259 B1 20040929 (DE)

Application
EP 00126378 A 20001202

Priority
DE 19960856 A 19991216

Abstract (en)
[origin: EP1109259A2] A contact structure comprises contactors made of conductive material, each comprising an intermediate portion inserted in a through hole of a substrate. A spring portion is provided and exerts a resilient contact force when the contactor is pressed against the contact target. A contact structure comprises a substrate (20) having through holes running through upper and lower surfaces; and contactors (30) made of conductive material and are mounted on the substrate. Each contactor comprises an intermediate portion inserted in the through hole. A contact portion is connected to the intermediate portion and positioned at one end of the contactor. A base portion is provided at the other end of the contactor. A spring portion is provided between the base portion and the intermediate portion. It has a cantilever shape and is inclined to the substrate. It exerts a resilient contact force when the contactor is pressed against the contact target (300). Independent claims are also included for the following: (A) the production of a contact structure comprising forming a sacrificial layer on a silicon substrate; forming a photoresist layer on the sacrificial layer; aligning a photomask over the photoresist layer and exposing the photoresist layer with ultraviolet light; developing image pattern of the contactors on the photoresist layer; forming the contactors on the photoresist layer; stripping off the photoresist layer; removing the sacrificial layer to separate the contactors from the silicon substrate; and mounting the contactors on a substrate, so that at least one end of the contactors functions as a contact pad (320); and (B) a probe contact comprising a contact substrate having contactors, a probe card for mounting the contact substrate, and a pin block having contact pins interfacing between the probe card and a semiconductor test system.

IPC 1-7
H01R 12/20; **H01R 12/22**; **H01R 13/24**; **H01R 13/193**; **H01R 13/646**

IPC 8 full level
B29C 33/30 (2006.01); **H01R 12/55** (2011.01); **H01R 12/71** (2011.01); **H01R 13/193** (2006.01); **H01R 13/24** (2006.01); **H01R 43/02** (2006.01); **H05K 1/00** (2006.01)

CPC (source: EP US)
H01R 12/724 (2013.01 - EP US); **H01R 43/0256** (2013.01 - EP US); **H01R 43/0263** (2013.01 - EP US)

Cited by
DE102017125811A1; KR20110093838A; WO2010060511A1; US8317523B2; WO2019086066A1; DE202018006398U1

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