

Title (en)  
MICRO-REPLICATION IN METAL

Title (de)  
METALLMIKROAUFZEICHNUNG

Title (fr)  
MICRO-REPLICATION DANS DU METAL

Publication  
**EP 0954395 A1 19991110 (EN)**

Application  
**EP 97949318 A 19971212**

Priority  
• SE 9702084 W 19971212  
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Abstract (en)  
[origin: WO9826885A1] With the intention of preventing damage to components as a result of heating of a chip and with the intention of limiting the affect of such heating, a chip carrying a waveguide connection or a fibre connection has been soldered firmly onto a metal surface or directly onto a metal lead frame, wherewith the thermal resistance will be much lower than in the case when the chip is soldered onto a ceramic or silicon carrier. The use of an embossing tool having an active embossing/stamping part (7) enables a microstructure that includes a V-groove (3) to be produced in the metal surface at low cost and with great precision for aligning a waveguide or a fibre with the chip. The embossing process may be carried out on the metal surface or directly on the metal lead frame. An embossing process can be automated relatively easily, since the material to be embossed can be worked in strip form. A construction method in which an optical chip is soldered to a metal carrier in which waveguide receiving or fibre receiving grooves have been embossed therein will improve heat dissipation and thus substantially increase the useful life of the finished component.

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**B21D 22/02**; **G02B 6/42**

IPC 8 full level  
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