2000 02662-5

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H01L 21/00, 21/56 — A1

(11) International Publication Number: **WO 99/27564**

(43) International Publication Date: 3 June 1999 (03.06.99)

(21) International Application Number: PCT/JP98/05204

(22) International Filing Date: 19 November 1998 (19.11.98)

(30) Priority Data:
9/319783 20 November 1997 (20.11.97) JP

(71) Applicant *(for all designated States except US)*: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: MINAMITANI, Shozo [JP/JP]; 14-12-302, Nakamiyahonmachi, Hirakata-shi, Osaka 573-1196 (JP). HOSOTANI, Naoto [JP/JP]; 2-8-2-102, Maruyamadori, Abeno-ku, Osaka-shi, Osaka 545-0042 (JP). MORITA, Koichi [JP/JP]; 210-23, Nakayama-cho nishi 3-chome, Nara-shi, Nara 631-0013 (JP). ONOBORI, Syunji [JP/JP]; 6-21-403, Myokensaka, Katano-shi, Osaka 576-0021 (JP). NISHINO, Kenichi [JP/JP]; 3-6-24, Yokotsutsumi, Tsurumi-ku, Osaka-shi, Osaka 538-0052 (JP).

(74) Agents: AOYAMA, Tamotsu et al.; Aoyama & Partners, IMP Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-0001 (JP).

(81) Designated States: SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: HEATING AND PRESSURIZING APPARATUS FOR USE IN MOUNTING ELECTRONIC COMPONENTS, AND APPARATUS AND METHOD FOR MOUNTING ELECTRONIC COMPONENTS

(57) Abstract

A heating and pressurizing apparatus (101), to which a circuit board (70) with electronic components (8) pre-bonded thereto via bonding elements (9) is carried in, is provided. The heating and pressurizing apparatus post-bonds the electronic component to the circuit board by heating and pressurizing the electronic component by a contact member (1211) having a heating device (122). By executing the pre-bonding and the post-bonding of the electronic components to the circuit board independently of each other, the time required for the post-boding can be reduced, compared with the conventional case, and the productivity of the whole mounting line can be improved.

