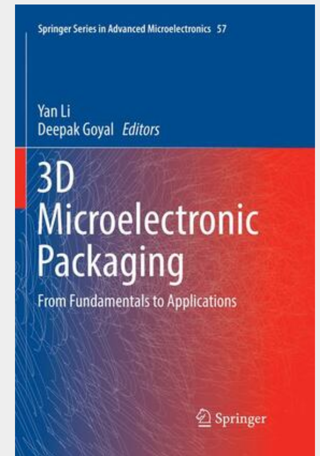
Goyal / Li

3D Microelectronic Packaging

From Fundamentals to Applications



This volume provides a comprehensive reference for graduate students and professionals in both academia and industry on the fundamentals, processing details, and applications of 3D microelectronic packaging, an industry trend for future microelectronic packages. Chapters written by experts cover the most recent research results and industry progress in the following areas: TSV, die processing, micro bumps, direct bonding, thermal compression bonding, advanced materials, heat dissipation, thermal management, thermal mechanical modeling, quality, reliability, fault isolation, and failure analysis of 3D microelectronic packages. Numerous images, tables, and didactic schematics are included throughout. This essential volume equips readers with an in-depth understanding of all aspects of 3D packaging, including packaging architecture, processing, thermal mechanical and moisture related reliability concerns, common failures, developing areas, and future challenges, providing insights into key areas for future research and development.

This volume provides a comprehensive reference for graduate students and professionals in both academia and industry on the fundamentals, processing details, and applications of 3D microelectronic packaging, an industry trend for future microelectronic packages. Chapters written by experts cover the most recent research results and industry progress in the following areas: TSV, die processing, micro bumps, direct bonding, thermal compression bonding, advanced materials, heat dissipation, thermal management, thermal mechanical modeling, quality, reliability, fault isolation, and failure analysis of 3D microelectronic packages. Numerous images, tables, and didactic schematics are included throughout. This essential volume equips readers with an in-depth understanding of all aspects of 3D packaging, including packaging architecture, processing, thermal mechanical and moisture related reliability concerns, common failures, developing areas, and future challenges, providing insights intokey areas for future research and development. - Provides comprehensive coverage of the state-of-the-art in 3D microelectronic packages - Covers advanced materials and processes, quality and reliability concerns, and fault isolation and failure analysis Discusses 3D electronic package architecture and assembly process design - Features contributions from both academic and industry authors, for a complete view of this important technology

192,59 €
179,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319830865
Medium: Buch
ISBN: 978-3-319-83086-5
Verlag: Springer International Publishing
Erscheinungstermin: 13.07.2018
Sprache(n): Englisch
Auflage: Softcover Nachdruck of the original 1. Auflage 2017
Serie: Springer Series in Advanced Microelectronics
Produktform: Kartoniert
Gewicht: 715 g
Seiten: 463
Format (B x H): 155 x 235 mm