

## Chapter 1 : Solder Reliability | CASPaR Website

*This book provides the most up-to-date knowledge and data available on the reliability of lead-free solder interconnects. The content has been written by leading experts working in this important technology area.*

The content has been written by leading experts working in this important technology area. Both fundamental research and practical considerations are addressed. Environmental regulations are driving the worldwide adoption of lead-free soldering technology for electronics packaging, board assembly, and related manufacturing operations. While a significant amount of research and development work has been conducted in recent years on manufacturing issues to enable the conversion to lead-free solders, data from studies related to the reliability of lead-free solder interconnects are still emerging. Many research projects around the world have been undertaken to study lead-free solder reliability under different loading conditions. The results of these studies have been reported rather sporadically at various technical conferences. This is the first book dedicated specifically to this topic, which is of paramount importance to the electronics industry. The coverage is focused primarily on tin-silver-copper and tin-copper eutectic or near eutectic alloys - the primary lead-free solder alloys being adopted by the worldwide electronics industry. This volume will be of particular interest to practitioners in the electronics industry, who need to understand the reliability of solder interconnects for design, testing, quality assurance, and failure analysis. It also will be of great value to industry and academic researchers, educators, and students. About the Contributors An "all star" team of internationally renowned experts, with in-depth knowledge in the many important areas of lead-free solder interconnect reliability, have contributed chapters to the book. The editor is Dongkai Shangguan, who has been working on lead-free solder technology since , first at Ford Motor Company and Visteon Corporation and now at Flextronics International. Shangguan has published over papers and has been awarded a number of patents to date on lead-free solders and environmental technology. In he won the "Soldertec Lead-Free Soldering Award" in recognition of his long-term involvement in lead-free research, implementation, and industry leadership. Lead-Free Soldering and Environmental Compliance: Shangguan, Flextronics International 2. Mei, Cisco Systems 3. Vianco, Sandia National Laboratories 4. Sitaraman, Georgia Institute of Technology 9. Dauksher, Agilent Technologies Reliability of Interconnects with Conductive Adhesives; J.

## Chapter 2 : Lead-Free Solder Interconnect Reliability - Google Books

*An "all star" team of internationally renowned experts, with in-depth knowledge in the many important areas of lead-free solder interconnect reliability, have contributed chapters to the book. Contributors represent U.S. and international government research facilities, universities, and industrial companies.*

## Chapter 3 : Lead-Free Solder Interconnect Reliability - Electronic Device Failure Analysis Society

*Figure 2 Effect of lead-free silver amount on solder joint reliability of PBGA (- 55/0°C) Effects of solder paste alloys for preferred TC, 0/0°C.*

## Chapter 4 : Lead-Free Solder Interconnect Reliability, Dongkai Shangguan, ,

*Lead-Free Solder Interconnect Reliability (#G) theinnatdunvilla.com viii While our company has benefited tremendously from Dr. Shangguan's world-leading.*

## Chapter 5 : Lead-Free Solder Interconnect Reliability | BookStore

*Lead-free Solder Interconnect Reliability [Dongkai Shangguan] on theinnatdunvilla.com \*FREE\* shipping on qualifying offers. This book provides the most up-to-date knowledge and data available on the reliability of lead-free solder*

*interconnects.*