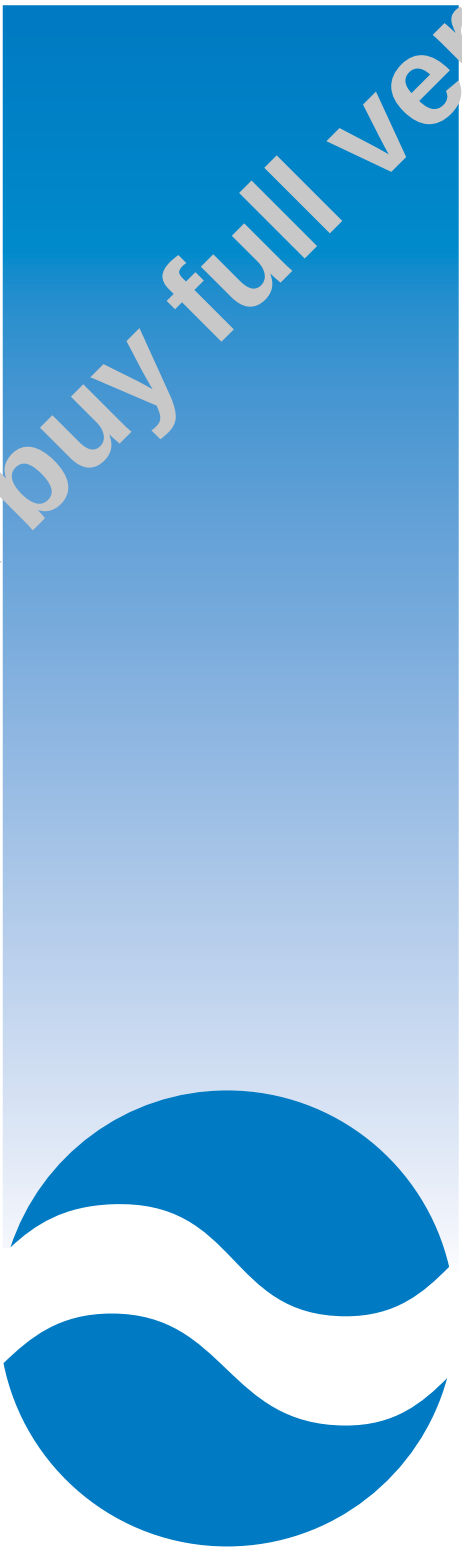
IPC/JEDEC J-STD-609B
October 2016
Supersedes IPC/JEDEC J-STD-609A
June 2010

JOINT INDUSTRY STANDARD

Marking and Labeling of Components, PCBs and PCBAs to Identify Lead (Pb), Lead-Free (Pb-Free) and Other Attributes



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A joint standard developed by the Marking, Symbols and Labels for Identification of Assemblies, Components and Devices Task Group (7-34a) of the Materials Identification Subcommittee (4-34) and JEDEC Committee JC14.4 Quality Processes and Methods

Supersedes:
IPC/JEDEC J-STD-609A - March 2010
IPC/JEDEC J-STD-609 - May 2007
JESD97 - May 2004
IPC-1066 - January 2005

Users of this publication are encouraged to participate in the development of future revisions.

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FOREWORD

Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment, commonly referred to as the ''RoHS Directive[1]'', and other legislation are driving the electronics industry towards the use of lead-free (Pb-free) solders and components with Pb-free 2nd level interconnect terminal finishes and materials.

There are different Pb-free solders being used for the various soldering operations in electronics. Each of these solders may require different processing temperatures for assembly, rework, and repair. Some means of communicating the identity of the Pb-free or Pb-containing solder must be provided so that those performing assembly, rework and repair are aware of the temperature capabilities and limitations of these solders, and are able to distinguish between Pb-free and Pb-containing solders.

Marking of components and/or labeling their shipping containers are needed to identify and distinguish Pb-containing and Pb-free 2nd level interconnect terminal finishes and materials. Labeling electronic assemblies using Pb-free solder materials will facilitate end-of-life recycling of electronic equipment. This standard sets forth minimum requirements and includes options for the provision of additional information.

This paradigm shift to Pb-free electronics has created a need for identification of traditional Pb-containing coatings, finishes and solders. This standard can be utilized to identify the presence of Pb for those markets as described in Sections 5 (Marking/Labeling Categories) and 8 (Marking and/or Labeling of Pb-Containing Components, PCBs, and PCB Assemblies). This standard supersedes IPC/JEDEC J-STD-609, JESD97 and IPC-1066.

1. The RoHS Directive itself is not a law; rather, it is a direction to the European Union Member States to implement their own laws embodying the requirements of the Directive. These laws were required to be in effect as of July 1, 2006.

Acknowledgment

Any document involving a complex technology draws material from a vast number of sources across many continents. While the principal members of the Marking, Symbols and Labels for Identification of Assemblies, Components and Devices Task Group (4-34b) of the Materials Identification Subcommittee (4-34) are shown below, it is not possible to include all of those who assisted in the evolution of this standard. To each of them, the members of the IPC extend their gratitude.

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A special note of thanks goes to the following individuals for their dedication in bringing this project to fruition. We would like to highlight those individuals who made major contributions to the development of this standard.

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