

JEDEC STANDARD

Information Requirements for the Qualification of Silicon Devices

JESD69C

(Revision of JESD69B, October 2007, Reaffirmed June 2011)

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JEDEC SOLID STATE TECHNOLOGY ASSOCIATION



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INFORMATION REQUIREMENTS FOR THE QUALIFICATION OF SILICON DEVICES

Introduction

Customers utilize supplier information when performing device qualification. This information typically includes quality, reliability, electrical and mechanical performance data. In addition, customers frequently request the supplier to complete a profile, or fact sheet, on the device or device family being evaluated. This profile may include information on the materials used within the device as well as the location of the device's manufacture or test. This profile, coupled with the above mentioned data elements, support the customers' evaluation of a device's suitability for use in their application.

INFORMATION REQUIREMENTS FOR THE QUALIFICATION OF SILICON DEVICES

(From JEDEC Board Ballot JCB-99-10, JCB-06-57, JCB-07-92, and JCB-17-27, formulated under the cognizance of the JC-14.3 Committee on Silicon Devices Reliability Qualification and Monitoring.)

1 Scope

This standard is intended to apply to silicon devices.

This standard defines the requirements for the device qualification package which the supplier provides to the customer. It is intended to establish a minimum set of data elements, rather than to define the full range of possible customer information requests. Customers who require additional information will have to negotiate these requests with the supplier.

This standard does not define which qualification method be followed (e.g., JESD47, JESD94, JP001, or JESD201), what tests must be performed, nor the qualification performance levels (e.g., reliability or quality) that a device must satisfy. Rather, it establishes a set of data elements that describes the device. It requests the supplier to provide the test results of their qualification efforts. Customers are responsible for determining the extent to which supplier provided information will be used as part of their qualification process.

2 Reference documents

JEP95, *JEDEC Registered and Standard Outlines for Solid State and Related Products*

JESD22-A113, *Preconditioning of Plastic Surface Mount Devices Prior to Reliability Testing*

JESD47, *Stress Test Driven Qualification of Integrated Circuits*

JESD78, *IC Latch-Up Test*

JESD94, *Application Specific Qualification Using Knowledge Based Test Methodology*

JESD201, *Environmental Acceptance Requirements for Tin Whiskers Susceptibility of Tin and Tin Alloy Surface Finishes*

JP001, *Foundry Process Qualification Guidelines*

JS-001, *Human Body Model (HBM) - Component Level*

JS-002, *Charged Device Model (CDM) - Device Level*

J-STD-020, *Moisture/Reflow Sensitive Classification for Nonhermetic Solid State Surface Mount Devices*

J-STD-075, *Classification of Passive and Solid State Devices for Assembly Processes*

J-STD-609, *Marking, Symbols, and Labels of Leaded and Lead-Free Terminal Finished Materials Used in Electronic Assembly*