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Semiconductor devices - Mechanical and climatic test methods - Part 23: High temperature operating life

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IEC 60749-23 has been prepared by IEC technical committee 47: Semiconductor devices. It is an International Standard.

This second edition cancels and replaces the first edition published in 2004 and Amendment 1:2011. It is based on JEDEC JESD22-A108G. It is used with permission of the copyright holder, JEDEC Solid State Technology Association. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) absolute stress test definitions and resultant test durations have been updated.

The text of this International Standard is based on the following documents:

Draft	Report on voting
47/2962/FDIS	47/2983/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60749 series, published under the general title *Semiconductor devices - Mechanical and climatic test methods*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

1 Scope

This part of IEC 60749 specifies the test used to determine the effects of bias conditions and temperature on solid state devices over time. It simulates the device operating condition in an accelerated way and is primarily for device qualification and reliability monitoring. A form of high temperature bias life using a short duration, popularly known as "burn-in", ~~may~~ can be used to screen for infant-mortality related failures. The detailed use and application of burn-in is outside the scope of this document.

2 Normative references

~~The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.~~

~~IEC 60747 (all parts), *Semiconductor devices – Discrete devices and integrated circuits*~~

~~IEC 60749-34: , *Semiconductor devices – Mechanical and climatic test methods – Part 34: Power cycling* [1]~~

There are no normative references in this document.

~~[1] To be published.~~

Bibliography

IEC 60747 (all parts), *Semiconductor devices - Discrete devices and integrated circuits*

IEC 60749-34, *Semiconductor devices - Mechanical and climatic test methods - Part 34: Power cycling*

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