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Semiconductor devices -
Part 6: Discrete devices - Thyristors

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Semiconductor devices - Part 6: Discrete devices - Thyristors

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IEC 60747-6 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2016. This edition constitutes a technical revision.

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

a) the terms and definitions for partial thermal resistance junction-to-case and voltages related to ratings and characteristics (properties) have been added;
b) Clauses 3, 4, 5, 6 and 7 were amended with some deletions of information no longer in use and with some necessary additions.

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

Draft	Report on voting
47E/863/FDIS	47E/865/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.

This International Standard is to be used in conjunction with IEC 60747-1:2006 and its Amendment 1:2010.

A list of all parts in the IEC 60747 series, published under the general title *Semiconductor devices*, 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- withdrawn, or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 60747 specifies product specific standards for terminology, letter symbols, essential ratings and characteristics (properties), measuring and test methods, requirements for type tests, routine tests, endurance tests and marking for the following discrete semiconductor devices:

– reverse blocking triode thyristors;
– reverse conducting (triode) thyristors;
– bidirectional triode thyristors (triacs);
– turn-off thyristors.

If no ambiguity is likely to result, any of the above will be referred to as thyristors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60050-521, *International Electrotechnical Vocabulary (IEV) - Part 521: Semiconductor devices and integrated circuits*, available at http://www.electropedia.org

IEC 60747-1:2006, *Semiconductor devices - Part 1: General*
IEC 60747-1:2006/AMD1:2010

IEC 60749-23, *Semiconductor devices - Mechanical and climatic test methods - Part 23: High temperature operating life*

IEC 60749-25, *Semiconductor devices - Mechanical and climatic test methods - Part 25: Temperature cycling*

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