

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Semiconductor devices –  
Part 6: Discrete devices – Thyristors**

**Dispositifs à semiconducteurs –  
Partie 6: Dispositifs discrets – Thyristors**





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## SEMICONDUCTOR DEVICES –

## Part 6: Discrete devices – Thyristors

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

This third edition cancels and replaces the second edition, published in 2000. This edition constitutes a technical revision.

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

- a) Clauses 3, 4, 5, 6, and 7 were amended with some deletions of information no longer in use or already included in other parts of the IEC 60747 series, and with some necessary additions;
- b) some parts of Clause 8 and Clause 9 were moved and added to Clause 7 of this third edition;
- c) Clause 8 and 9 were deleted in this third edition;
- d) Annex A was deleted.

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

The text of this standard is based on the following documents:

FDIS	Report on voting
47E/532/FDIS	47E/538/RVD

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

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## SEMICONDUCTOR DEVICES –

### Part 6: Discrete devices – Thyristors

#### 1 Scope

This part of IEC 60747 provides standards for the following types of discrete semiconductor devices:

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

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

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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 60749-34:2010, *Semiconductor devices – Mechanical and climatic test methods – Part 34: Power cycling*

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

##### 3.1 General

###### 3.1.1 triac

bidirectional triode thyristor

three-terminal thyristor having substantially the same switching behaviour in the first and third quadrants of the current-voltage characteristic

[SOURCE: IEC 60050-521:2002, 521-04-67]