

# INTERNATIONAL STANDARD

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**Fixed capacitors for use in electronic equipment  
Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or  
solid electrolyte**





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**Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or solid electrolyte**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 31.060.40

ISBN 978-2-8322-4319-0

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –****Part 15: Sectional specification:  
Fixed tantalum capacitors with non-solid or solid electrolyte**

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International Standard IEC 60384-15 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This second edition cancels and replaces the first edition published in 1982, Amendment 1:1987 and Amendment 2:1992, and constitutes a technical revision.

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

- a) Revision of the structure in accordance with ISO/IEC Directives, Part 2:2016 (seventh edition) to the extent practicable, and harmonization between other similar kinds of documents.
- b) In addition, Clause 4 and all the tables have been reviewed in order to prevent duplications and contradictions.

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

FDIS	Report on voting
40/2523/FDIS	40/2535/RVD

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all parts of the IEC 60384 series, under the general title *Fixed capacitors for use in electronic equipment*, 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or solid electrolyte

#### 1 General

##### 1.1 Scope

This part of IEC 60384 applies to through-hole/leaded polar and bipolar tantalum electrolyte capacitors with solid and non-solid electrolyte for use in electronic equipment.

It includes capacitors for long-life applications and capacitors for general-purpose applications.

Capacitors for special purpose application may need additional requirements.

This document covers two basic sub-families:

- Sub-family 1: Fixed non-solid electrolyte tantalum capacitors with porous anode.
- Sub-family 2: Fixed solid electrolyte tantalum capacitors with porous anode.

##### 1.2 Object

The object of this document is to prescribe preferred ratings and characteristics and to select from IEC 60384-1:2016 the appropriate quality assessment procedures, tests and measuring methods and to give general performance requirements for this type of capacitor. Test severities and requirements prescribed in detail specifications referring to this sectional specification shall be of equal or higher performance level, because lower performance levels are not permitted.

##### 1.3 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 60063, *Preferred number series for resistors and capacitors*

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60384-1:2016, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 60417, *Graphical symbols for use on equipment*

IEC 61193-2:2007, *Quality assessment system – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*