

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment
Part 3: Sectional specification – Surface mount fixed tantalum electrolytic
capacitors with solid (MnO₂) electrolyte**

**Condensateurs fixes utilisés dans les équipements électroniques –
Partie 3: Spécification intermédiaire – Condensateurs fixes électrolytiques
au tantale pour montage en surface à électrolyte solide (MnO₂)**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –**Part 3: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with solid (MnO₂) electrolyte**

FOREWORD

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International Standard IEC 60384-3 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This fourth edition cancels and replaces the third edition published in 2006 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 2:2011 (sixth 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 standard is based on the following documents:

FDIS	Report on voting
40/2464/FDIS	40/2470/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.

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

The list of all the 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 publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 3: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with solid (MnO₂) electrolyte

1 General

1.1 Scope

This part of IEC 60384 applies to fixed tantalum electrolytic surface mount capacitors with solid (MnO₂) electrolyte primarily intended for d.c. applications for use in electronic equipment.

These capacitors are primarily intended for use in electronic equipment to be mounted directly on substrates for hybrid circuits or to printed boards.

Capacitors for special-purpose applications may need additional requirements.

The following two styles are considered:

- Style 1: Capacitors protected with external materials;
- Style 2: Capacitors unprotected with external materials.

1.2 Object

The object of this standard 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 should be of equal or higher performance level, because lower performance levels are not permitted.

1.3 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 60062, *Marking codes for resistors and capacitors*

IEC 60063, *Preferred number series for resistors and capacitors*

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

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*

ISO 3, *Preferred numbers – Series of preferred numbers*