

INTERNATIONAL STANDARD

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 31.060.40

ISBN 978-2-8322-4319-0

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CONTENTS

FOREWORD.....	5
1 General	7
1.1 Scope	7
1.2 Object.....	7
1.3 Normative references.....	7
1.4 Information to be given in a detail specification	8
1.4.1 General	8
1.4.2 Outline drawing and dimensions	8
1.4.3 Mounting	8
1.4.4 Ratings and characteristics.....	8
1.4.5 Marking	9
1.5 Terms and definitions.....	9
1.6 Marking.....	9
1.6.1 General	9
1.6.2 Information for marking.....	10
1.6.3 Marking on capacitors.....	10
1.6.4 Marking on packaging.....	10
2 Preferred ratings and characteristics	10
2.1 Preferred characteristics	10
2.2 Preferred values of ratings	10
2.2.1 Nominal capacitance (C_N).....	10
2.2.2 Tolerance on nominal capacitance.....	11
2.2.3 Rated voltage (U_R)	11
2.2.4 Category voltage (U_C).....	11
2.2.5 Reverse voltage.....	11
2.2.6 Surge voltage (U_{RS} or U_{CS})	11
2.2.7 Ripple (if required).....	11
2.2.8 Rated temperature.....	12
3 Quality assessment procedures	12
3.1 Primary stage of manufacture	12
3.2 Structurally similar components	12
3.3 Certified test records of released lots.....	12
3.4 Qualification approval procedures.....	12
3.4.1 General	12
3.4.2 Qualification approval on the basis of the fixed sample size procedure	12
3.4.3 Tests	13
3.5 Quality conformance inspection	20
3.5.1 Formation of inspection lots.....	20
3.5.2 Test schedule	21
3.5.3 Delayed delivery.....	21
3.5.4 Assessment levels	21
4 Test and measurement procedures.....	22
4.1 Visual inspection and check of dimensions	22
4.2 Electrical tests	22
4.2.1 Leakage current.....	22
4.2.2 Capacitance	22
4.2.3 Tangent of loss angle ($\tan \delta$)	23

4.2.4	Impedance (if required).....	23
4.2.5	Insulation resistance of the external insulation (if required).....	24
4.2.6	Voltage proof of the external insulation (if required).....	24
4.3	Robustness of terminations.....	25
4.3.1	General	25
4.3.2	Initial inspection.....	25
4.3.3	Test Ua1, Ub and Uc applicable.....	25
4.3.4	Special bending test	25
4.4	Resistance to soldering heat.....	26
4.4.1	General	26
4.4.2	Conditions	26
4.4.3	Final inspections and requirements.....	26
4.5	Solderability.....	26
4.5.1	General	26
4.5.2	Test conditions	26
4.5.3	Final inspections and requirements.....	26
4.6	Rapid change of temperature	26
4.6.1	General	26
4.6.2	Initial inspection.....	27
4.6.3	Test conditions	27
4.6.4	Recovery	27
4.6.5	Final inspections and requirements.....	27
4.7	Vibration	27
4.7.1	General	27
4.7.2	Test condition	27
4.7.3	Final inspections and requirements.....	27
4.8	Bump	27
4.8.1	General	27
4.8.2	Mounting	28
4.8.3	Test conditions	28
4.8.4	Final inspections and requirements.....	28
4.9	Shock	28
4.9.1	General	28
4.9.2	Mounting	28
4.9.3	Test conditions	28
4.9.4	Final inspections and requirements.....	29
4.10	Climatic sequence.....	29
4.10.1	General	29
4.10.2	Initial inspection.....	29
4.10.3	Dry heat	29
4.10.4	Damp heat, cyclic, Test Db, first cycle	29
4.10.5	Cold.....	29
4.10.6	Low air pressure (if required).....	29
4.10.7	Damp heat, cyclic, Test Db, remaining cycles	29
4.10.8	Recovery	29
4.10.9	Sealing (if required)	30
4.10.10	Final inspections and requirements.....	30
4.11	Damp heat, steady state	30
4.11.1	General	30

4.11.2	Initial inspection.....	30
4.11.3	Final inspections and requirements.....	30
4.12	Endurance	30
4.12.1	General	30
4.12.2	Initial inspection.....	30
4.12.3	Test conditions	30
4.12.4	Recovery	31
4.12.5	Final inspections and requirements.....	31
4.13	Surge voltage	31
4.13.1	General	31
4.13.2	Initial inspection.....	31
4.13.3	Test conditions	31
4.13.4	Final inspections and requirements.....	31
4.14	Reverse voltage (if required).....	32
4.14.1	General	32
4.14.2	Initial inspection.....	32
4.14.3	Test conditions	32
4.14.4	Final inspections and requirements.....	32
4.15	Characteristics at high and low temperature.....	32
4.15.1	General	32
4.15.2	Final inspections and requirements.....	32
4.16	Charge and discharge (if required).....	32
4.16.1	General	32
4.16.2	Initial inspection.....	32
4.16.3	Test conditions	33
4.16.4	Recovery	33
4.16.5	Final inspections and requirements.....	33
4.17	Component solvent resistance	33
4.18	Solvent resistance of the marking	33
4.19	High surge current (if required)	33
4.19.1	General	33
4.19.2	Initial inspection.....	33
4.19.3	Final inspections and requirements.....	33
	Bibliography.....	34
	Figure 1 – Apparatus of special bending test	25
	Table 1 – Rated, category and surge voltages	11
	Table 2 – Sampling plan for qualification approval tests.....	14
	Table 3 – Test schedule for qualification approval	15
	Table 4 – Lot-by-Lot inspection.....	21
	Table 5 – Periodic Inspection.....	22
	Table 6 – Vibration test frequencies.....	27
	Table 7 – Shock peak acceleration/pulse duration	28
	Table 8 – Test temperature	31

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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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*

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