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Fixed capacitors for use in electronic equipment –

Part 24:

Sectional specification –

Surface mount fixed tantalum electrolytic capacitors with conductive polymer solid electrolyte

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –**Part 24: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with conductive polymer solid electrolyte**

FOREWORD

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International Standard IEC 60384-24 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

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

FDIS	Report on voting
40/1731/FDIS	40/1754/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.

IEC 60384 consists of the following parts, under the general title *Fixed capacitors for use in electronic equipment*:

- Part 1: Generic specification
- Part 2: Sectional specification: Fixed metallized polyethylene-terephthalate film dielectric d.c. capacitors
- Part 3: Sectional specification: Fixed tantalum chip capacitors
- Part 4: Sectional specification: Aluminium electrolytic capacitors with solid and non-solid electrolyte
- Part 5: Sectional specification: Fixed mica dielectric d.c. capacitors with a rated voltage not exceeding 3 000 V – Selection of methods of test and general requirements
- Part 6: Sectional specification: Fixed metallized polycarbonate film dielectric d.c. capacitors
- Part 7: Sectional specification: Fixed polystyrene film dielectric metal foil d.c. capacitors
- Part 8: Sectional specification: Fixed capacitors of ceramic dielectric, Class 1
- Part 9: Sectional specification: Fixed capacitors of ceramic dielectric, Class 2
- Part 11: Sectional specification: Fixed polyethylene-terephthalate film dielectric metal foil d.c. capacitors
- Part 12: Sectional specification: Fixed polycarbonate film dielectric metal foil d.c. capacitors
- Part 13: Sectional specification: Fixed polypropylene film dielectric metal foil d.c. capacitors
- Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains
- Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or solid electrolyte
- Part 16: Sectional specification: Fixed metallized polypropylene film dielectric d.c. capacitors
- Part 17: Sectional specification: Fixed metallized polypropylene film dielectric a.c. and pulse capacitors
- Part 18: Sectional specification: Fixed aluminium electrolytic chip capacitors with solid and non-solid electrolyte
- Part 19: Sectional specification: Fixed metallized polyethylene-terephthalate film dielectric chip d.c. capacitors
- Part 20: Sectional specification: Fixed metallized polyphenylene sulphide film dielectric chip d.c. capacitors
- Part 21: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1
- Part 22: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2
- Part 23: Sectional specification: Fixed surface mount metallized polyethylene naphthalate film dielectric d.c. capacitors
- Part 24: Sectional specification: Surface mount fixed tantalum electrolytic capacitors with conductive polymer solid electrolyte
- Part 25: Sectional specification: Surface mount fixed aluminium electrolyte capacitors with conductive polymer solid electrolyte

All sectional specifications mentioned above do have one or more blank detail specifications being a supplementary document, containing requirements for style, layout and minimum content of detail specifications.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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.

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

The contents of the corrigendum of October 2006 have been included in this copy.

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FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 24: Sectional specification – Surface mount fixed tantalum electrolytic capacitors with conductive polymer solid electrolyte

1 General

1.1 Scope

This part of IEC 60384 is applicable to tantalum electrolytic capacitors with conductive polymer solid electrolyte. These capacitors are primarily intended to be mounted directly on substrates for hybrid circuits or to printed boards.

Fixed tantalum electrolytic chip capacitors with solid (MnO_2) are not included but are covered by IEC 60384-3.

1.2 Object

The object of this standard is to prescribe preferred ratings and characteristics and to select from IEC 60384-1 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 referenced documents are indispensable for the application 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 60063:1963, *Preferred number series for resistors and capacitors*
Amendment 1 (1967)
Amendment 2 (1977)

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

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

IEC 60068-2-58:2004, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60384-1:1999, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 60410: *Sampling plans and procedures for inspection by attributes*

ISO 3:1973, *Preferred numbers – Series of preferred numbers*