

# INTERNATIONAL STANDARD

**IEC**  
**60384-21**

First edition  
2004-06

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## Fixed capacitors for use in electronic equipment –

### Part 21:

#### Sectional specification:

#### Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1

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## CONTENTS

FOREWORD.....	4
1 General.....	6
1.1 Scope.....	6
1.2 Object.....	6
1.3 Normative references.....	6
1.4 Information to be given in a detail specification.....	7
1.5 Terms and definitions.....	8
1.6 Marking.....	9
2 Preferred rating and characteristics.....	9
2.1 Preferred characteristics.....	9
2.2 Preferred values of ratings.....	10
3 Quality assessment procedures.....	12
3.1 Primary stage of manufacture.....	12
3.2 Structurally similar components.....	12
3.3 Certified records of released lots.....	13
3.4 Qualification approval.....	13
3.5 Quality conformance inspection.....	19
4 Test and measurement procedures.....	21
4.1 Preliminary drying.....	21
4.2 Measuring conditions.....	21
4.3 Visual examination and check of dimensions.....	21
4.4 Mounting.....	21
4.5 Electrical tests.....	23
4.6 Temperature coefficient ( $\alpha$ ) and temperature cycle drift.....	25
4.7 Shear test.....	26
4.8 Substrate bending test.....	26
4.9 Resistance to soldering heat.....	26
4.10 Solderability.....	27
4.11 Rapid change of temperature.....	28
4.12 Climatic sequence.....	29
4.13 Damp heat, steady state.....	30
4.14 Endurance.....	31
4.15 Robustness of terminations (Only for capacitors with strip termination).....	33
4.16 Component solvent resistance (if required).....	33
4.17 Solvent resistance of the marking (if required).....	33
4.18 Accelerated damp heat, steady state (if required).....	33
Annex A (normative) Guide for the specification and coding of dimensions of fixed surface mount multilayer capacitors of ceramic dielectric, Class 1.....	35
Figure 1 – Fault: crack or fissure.....	21
Figure 2 – Fault: crack or fissure.....	22
Figure 3 – Separation or delamination.....	22
Figure 4 – Exposed electrodes.....	22
Figure 5 – Principal faces.....	23

Table 1 – Preferred tolerance on rated capacitance .....	10
Table 2 – Rated temperature coefficient and tolerance .....	11
Table 3 – Combination of temperature coefficient and tolerance .....	12
Table 4 – Fixed sample size test plan for qualification approval – Assessment level EZ .....	15
Table 5 – Tests schedule for Qualification Approval .....	16
Table 6a – Lot-by-lot inspection .....	20
Table 6b – Periodic tests .....	20
Table 7 – Tangent of loss angle limits .....	24
Table 8 – Test voltages .....	25
Table 9 – Temperature cyclic drift limits .....	26
Table 10 – Maximum capacitance change .....	27
Table 11 – Maximum capacitance change .....	29
Table 12 – Number of damp heat cycles .....	30
Table 13 – Final inspection measurements and requirements .....	30
Table 14 – Final inspection measurements and requirements .....	31
Table 15 – Endurance test conditions ( $U_C = U_R$ ) .....	32
Table 16 – Endurance test conditions ( $U_C \neq U_R$ ) .....	32
Table 17 – Final inspection measurements and requirements .....	32
Table 18 – Initial requirements .....	33
Table 19 – Conditioning .....	34
Table A.1 – Dimensions .....	36

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –****Part 21: Sectional specification:  
Fixed surface mount multilayer capacitors  
of ceramic dielectric, Class 1**

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International Standard IEC 60384-21 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This standard and its related publications (CEI 60384-21-1, IEC 60384-22 and IEC 60384-22-1) cancel and replace IEC 60384-10 (1989) and its Amendments 1 (1993) and 2 (2000) as well as IEC 60384-10-1 (1989) and its Amendment 1 (1993).

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

FDIS	Report on voting
40/1420/FDIS	40/1451/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 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 standard may be issued at a later date.

The contents of the corrigendum of September 2004 have been included in this copy

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## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 21: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1

#### 1 General

##### 1.1 Scope

This sectional specification is applicable to fixed unencapsulated surface mount multilayer capacitors of ceramic dielectric, Class 1, for use in electronic equipment. These capacitors have metallized connecting pads or soldering strips and are intended to be mounted on printed boards, or directly onto substrates for hybrid circuits.

Capacitors for electromagnetic interference suppression are not included, but are covered by IEC 60384-14.

##### 1.2 Object

The object of this standard is to prescribe preferred ratings and characteristics and to select from IEC 60384-1:1999 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, 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 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-58:1999, *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 60410:1973, *Sampling plans and procedures for inspection by attributes*

ISO 31:1973, *Preferred numbers – Series of preferred numbers*