

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment  
Part 21: Sectional specification – Fixed surface mount multilayer capacitors  
of ceramic dielectric, Class 1**

**Condensateurs fixes utilisés dans les équipements électroniques –  
Partie 21: Spécification intermédiaire – Condensateurs multicouches fixes à  
diélectriques en céramique pour montage en surface, de Classe 1**



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## NORME INTERNATIONALE

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Partie 21: Spécification intermédiaire – Condensateurs multicouches fixes à  
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## CONTENTS

FOREWORD.....	6
1 Scope.....	8
2 Normative references .....	8
3 Terms and definitions .....	8
4 Information to be given in a detail specification.....	9
4.1 General.....	9
4.2 Outline drawing and dimensions .....	10
4.3 Mounting.....	10
4.4 Rating and characteristics.....	10
4.4.1 General .....	10
4.4.2 Nominal capacitance range.....	10
4.4.3 Particular characteristics .....	10
4.4.4 Soldering.....	10
4.5 Marking.....	11
5 Marking .....	11
5.1 General.....	11
5.2 Information for marking .....	11
5.3 Marking on the body .....	11
5.4 Requirements for marking .....	11
5.5 Marking of the packaging .....	11
5.6 Additional marking .....	11
6 Preferred ratings and characteristics .....	11
6.1 Preferred characteristics .....	11
6.2 Preferred values of ratings.....	12
6.2.1 Rated temperature ( $T_R$ ) .....	12
6.2.2 Rated voltage ( $U_P$ ) .....	12
6.2.3 Category voltage ( $U_C$ ).....	12
6.2.4 Preferred values of nominal capacitance and associated tolerance values.....	12
6.2.5 Temperature coefficient ( $\alpha$ ) .....	13
6.2.6 Dimensions.....	14
7 Quality assessment procedures .....	15
7.1 Primary stage of manufacture .....	15
7.2 Structurally similar components .....	15
7.3 Certified records of released lots .....	15
7.4 Qualification approval .....	15
7.4.1 General .....	15
7.4.2 Qualification approval on the basis of the fixed sample size procedures .....	15
7.4.3 Tests .....	16
7.5 Quality conformance inspection .....	21
7.5.1 Formation of inspection lots.....	21
7.5.2 Test schedule .....	21
7.5.3 Delayed delivery.....	21
7.5.4 Assessment levels .....	21
8 Test and measurement procedures.....	22
8.1 General.....	22

8.2	Preliminary drying .....	22
8.3	Measuring conditions .....	23
8.4	Mounting .....	23
8.5	Visual examination and check of dimensions .....	23
8.5.1	General .....	23
8.5.2	Visual examination .....	23
8.5.3	Requirements .....	23
8.6	Electrical tests .....	25
8.6.1	Capacitance .....	25
8.6.2	Tangent of loss angle ( $\tan \delta$ ) .....	25
8.6.3	Insulation resistance .....	26
8.6.4	Voltage proof .....	26
8.7	Temperature coefficient ( $\alpha$ ) and temperature cycle drift .....	27
8.7.1	General .....	27
8.7.2	Preliminary drying .....	27
8.7.3	Measuring conditions .....	27
8.7.4	Requirements .....	27
8.8	Shear test .....	28
8.9	Substrate bending test .....	28
8.9.1	General .....	28
8.9.2	Initial measurement .....	28
8.9.3	Final inspection .....	28
8.10	Resistance to soldering heat .....	28
8.10.1	General .....	28
8.10.2	Initial measurement .....	28
8.10.3	Test conditions .....	28
8.10.4	Recovery .....	30
8.10.5	Final inspection, measurements and requirements .....	30
8.11	Solderability .....	30
8.11.1	General .....	30
8.11.2	Test conditions .....	30
8.11.3	Recovery .....	31
8.11.4	Final inspection, measurements and requirements .....	31
8.12	Rapid change of temperature .....	31
8.12.1	General .....	31
8.12.2	Initial measurement .....	31
8.12.3	Number of cycles .....	31
8.12.4	Recovery .....	32
8.12.5	Final inspection, measurements and requirements .....	32
8.13	Climatic sequence .....	32
8.13.1	General .....	32
8.13.2	Initial measurement .....	32
8.13.3	Dry heat .....	32
8.13.4	Damp heat, cyclic, Test Db, first cycle .....	32
8.13.5	Cold .....	32
8.13.6	Damp heat, cyclic, Test Db, remaining cycles .....	32
8.13.7	Final inspection, measurements and requirements .....	33
8.14	Damp heat, steady state .....	33
8.14.1	General .....	33

8.14.2	Initial measurement .....	33
8.14.3	Test conditions .....	33
8.14.4	Recovery .....	34
8.14.5	Final inspection, measurements and requirements.....	34
8.15	Endurance .....	34
8.15.1	General .....	34
8.15.2	Initial measurement .....	35
8.15.3	Test conditions .....	35
8.15.4	Recovery .....	35
8.15.5	Final inspection, measurements and requirements.....	35
8.16	Robustness of terminations (only for capacitors with strip termination).....	36
8.16.1	General .....	36
8.16.2	Test conditions .....	36
8.16.3	Final inspection and requirements .....	36
8.17	Component solvent resistance (if required) .....	36
8.18	Solvent resistance of the marking (if required) .....	36
8.19	Accelerated damp heat, steady state (if required) .....	36
8.19.1	General .....	36
8.19.2	Initial measurement .....	37
8.19.3	Conditioning .....	37
8.19.4	Recovery .....	37
8.19.5	Final measurements .....	37
Annex A (normative) Guidance for the specification and coding of dimensions of fixed surface mount multilayer capacitors of ceramic dielectric, Class 1 .....		38
Annex B (informative) Combination of temperature coefficient and tolerance for the reference temperature of 25 °C.....		39
Annex X (informative) Cross-reference for reference to IEC 60384-21:2011.....		40
Bibliography.....		41
Figure 1 – Fault: crack or fissure.....		23
Figure 2 – Fault: crack or fissure.....		23
Figure 3 – Separation or delamination .....		24
Figure 4 – Exposed electrodes.....		24
Figure 5 – Principal faces .....		24
Figure 6 – Reference temperature profile .....		29
Figure A.1 – Dimensions.....		38
Table 1 – Preferred tolerances on nominal capacitance .....		12
Table 2 – Nominal temperature coefficient and tolerance .....		13
Table 3 – Combination of temperature coefficient and tolerance .....		14
Table 4 – Fixed sample size test plan for qualification approval – Assessment level EZ.....		17
Table 5 – Tests schedule for qualification approval.....		18
Table 6 – Lot-by-lot inspection .....		22
Table 7 – Periodic tests .....		22
Table 8 – Tangent of loss angle limits .....		25
Table 9 – Test voltages.....		27

Table 10 – Temperature cyclic drift limits .....	28
Table 11 – Reflow temperature profiles for Sn-Ag-Cu alloy .....	29
Table 12 – Maximum capacitance change .....	30
Table 13 – Maximum capacitance change .....	32
Table 14 – Number of damp heat cycles .....	33
Table 15 – Final inspection, measurements and requirements .....	33
Table 16 – Test conditions for damp heat, steady state .....	34
Table 17 – Final inspection, measurements and requirements .....	34
Table 18 – Endurance test conditions ( $U_C = U_R$ ) .....	35
Table 19 – Endurance test conditions ( $U_C \neq U_R$ ) .....	35
Table 20 – Final inspection, measurements and requirements .....	36
Table 21 – Initial requirements .....	37
Table 22 – Conditioning .....	37
Table A.1 – Dimensions .....	38
Table B.1 – Combination of temperature coefficient and tolerance for the reference temperature of 25 °C .....	39
Table X.1 – Reference to IEC 60384-21 for clause/subclause .....	40
Table X.2 – Reference to IEC 60384-21 for figure/table .....	40

## 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 third edition cancels and replaces the second edition published in 2011. This edition 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 to the extent practicable, and for harmonizing with IEC 60384-22;
- b) deletion of the description on the permissible reactive power in 6.2.2 because it is not appropriate for the purposes of this document;

c) the dimensions of 0201M in Annex A have been added.

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

FDIS	Report on voting
40/2639/FDIS	40/2651/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.

A list of all parts in the IEC 60384 series, published 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.

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

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

#### 1 Scope

This part of IEC 60384 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.

The object of this document is to prescribe preferred ratings and characteristics and to select from IEC 60384-1 the appropriate quality assessment procedure, 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 are of equal or higher performance levels; lower performance levels are not permitted.

#### 2 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 test 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 60068-2-58:2013, *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 60068-2-8:2015/AMD1:2017

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

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

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

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60384-1 and the following apply.