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# Australian Standard 1541, Part 1—1980

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## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT Part 1—TERMINOLOGY AND METHODS OF TEST



**STANDARDS ASSOCIATION OF AUSTRALIA**  
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Telecommunications Development Association  
Confederation of Australian Industry  
Department of Productivity  
Institution of Radio and Electronics Engineers  
Telecom Australia

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This standard, prepared by Committee TE/2, Capacitors and Resistors, was approved on behalf of the Council of the Standards Association of Australia on 7 January 1980, and was published on 1 May 1980.

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*This standard was issued in draft form for public review as DR 73057.*

**AUSTRALIAN STANDARD**

**FIXED CAPACITORS FOR USE IN  
ELECTRONIC EQUIPMENT**

**Part 1  
TERMINOLOGY AND  
METHODS OF TEST**

**AS 1541, Part 1—1980**

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## PREFACE

This standard was prepared by the Association's Telecommunications and Electronics Committee on Capacitors and Resistors as one of a series of standards on electronic components.

In its terminology, definitions and general treatment of the subject, this standard is technically identical with IEC Standard 384-1 as supplemented by IEC 384-1A and IEC 384-1B and recent amendments issued by the International Electrotechnical Commission. Acknowledgement is made of the assistance from this source.

The differences between this standard and IEC 384-1 are purely editorial, but this standard requires reference to other Australian standards rather than to other international standards as does IEC 384-1. These further Australian standards are, in turn, technically compatible with the relevant documents cross-referenced in IEC 384-1.

The purpose of the standard is to define terminology and to establish uniform methods of test for use with all types of fixed capacitors for use with telecommunications equipment and electronic equipment employing similar techniques.

The standard has also been written so that it will be acceptable for use with the IEC Quality Assessment System for Electronic Components. Through SAA, Australia is currently investigating joining the IEC QASEC as a participating member. The purpose of IEC QASEC is to facilitate world trade in electronic components so that components listed and certified in one participating country will automatically be accepted in any other participating country without the need for further testing.

It is intended that this standard will become the general specification, as defined herein, in a series of standards being prepared on capacitors. Sectional and detail specifications, describing particular types of capacitor, will select from the test methods described herein and specify appropriate test severities and any special requirements.

This standard requires reference to the following Australian standards:

- AS 1000 The International System of Units (SI) and its Application
- AS 1046 Letter Symbols for Use in Electrotechnology
  - Part 1—General
  - Part 2—Telecommunications and Electronics
- AS 1099 Basic Environmental Testing Procedures for Electrotechnology
  - Part 1—General
  - Part 2—Tests
- AS 1102 Graphical Symbols for Electrotechnology
- AS 2065 Preferred Number Series for Resistors and Capacitors
- AS 2066 Marking Codes for Resistors and Capacitors

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## STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard

for

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT

## PART 1—TERMINOLOGY AND METHODS OF TEST

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This standard relates to fixed capacitors for use in electronic equipment.

It establishes standard terms, inspection procedures and methods of test for use in sectional and detail specifications for qualification approval and for quality assessment systems for electronic components.

**1.2 RELATED DOCUMENTS.** The following references apply to the current edition of the appropriate standard except that the test method called up from AS 1099 will incorporate the year of publication in order that the correct test method is used.

**1.4 DEFINITIONS.** For the purpose of this standard the following definitions shall apply in addition to those listed in AS 1852.

**1.4.1 Type**—a group of components having similar design features and the similarity of whose manufacturing techniques enables them to be grouped together either for qualification approval or for quality conformance inspection.

They are generally covered by a single detail specification.

NOTE: Components described in several detail specifications, may, in some cases, be considered as belonging to the same type and may therefore be grouped together for approval and quality conformance inspection.

Australian Standard		Equivalent International Standard
Reference No	Title	
AS 1000	The International System of Units (SI) and its application	ISO 1000
AS 1046	Letter symbols for use in electrotechnology Part 1—General Part 2—Telecommunications and electronics	IEC 27-1 IEC 27-2
AS 1099	Basic environmental testing procedures for electrotechnology	IEC 68
AS 1102	Graphical symbols for electrotechnology	IEC 117
AS 1199	Sampling procedures and tables for inspection by attributes	IEC 410
AS 1852	International Electrotechnical Vocabulary	IEC 50
AS 2065	Preferred number series for resistors and capacitors	IEC 63
AS 2066	Marking codes for resistors and capacitors	IEC 62
SAA MP19	Report on preferred numbers and their use	ISO 3, ISO 497
AS . . . *	Basic rules for the quality assessment system for electronic components	Draft O1(CO)572
AS . . . *	Rules of procedure for the quality assessment system for electronic Components	Draft CMC(CO)1 & 2

\*In course of preparation.

**1.3 UNITS AND SYMBOLS.** Units, graphical symbols, letter symbols shall, whenever possible, be in accordance with the following standards:

AS 1000  
AS 1046  
AS 1102  
AS 1852

When further items are required they shall be derived in accordance with the principles of the standards specified.

**1.4.2 Style**—a subdivision of a type, generally based on dimensional factors.

A style may include several variants, generally of a mechanical order.

**1.4.3 Grade**—a term to indicate additional general characteristics concerning the intended application, e.g. long life applications.

The term 'Grade' may only be used in combination with one or more words (e.g. long life grade) and not by a single letter or number.

Figures to be added after the term 'Grade' should be arabic numerals.