Technically identical to IEC 166.

AS 1541, Part 51.1—1983
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Australian Standard 1541, Part 51.1—1983

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT

Part 51.1—SECTIONAL SPECIFICATION Metallized Paper Dielectric for Direct Current

STANDARDS ASSOCIATION OF AUSTRALIA
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This Australian standard was prepared by Committee TE/2, Resistors and Capacitors, assisted by Committee ET/4/1, Quality Assessment System for Electronic Components Technical Coordinating Subcommittee. It was approved on behalf of the Council of the Standards Association of Australia on 22 September 1982 and published on 9 May 1983.

The following interests were represented on the committees responsible for the preparation of this standard:

Australian Electronic Industry Association

Confederation of Australian Industry

Department of Defence

Department of Science and Technology

Institution of Radio and Electronics Engineers Australia

Telecom Australia

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AUSTRALIAN STANDARD

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT

Part 51.1 SECTIONAL SPECIFICATION Metallized Paper Dielectric for Direct Current

AS 1541, Part 51.1—1983

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PREFACE

This standard was prepared by the Association's Committee on Capacitors and Resistors as a sectional specification for use in the qualification of capacitors, according to the requirements of the International Electrotechnical Commission's Quality Assessment System for Electronic Components (IECQ). It supersedes AS 1461—1973.

The standard is based on IEC 166. In its terminology, definitions and general treatment of the subject the standard is, therefore, similar to and generally compatible with IEC 166 but a section has been added on quality assessment procedures and some requirements have been revised in terms of more recent treatment of capacitors in similar IEC standards.

This standard is intended for use in the IECQ System in Australia in conjunction with the generic specification AS 1541, Part 1 and the blank detail specification on fixed metallized paper dielectric capacitors published as AS 1541, Part 51.2. The preparation of detail specifications by the parties involved will require reference to IEC/QC 1001 and IEC/QC 1002.

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SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard specifies general requirements for fixed capacitors for direct current, with metallized electrodes and paper dielectric. It is in the form of a sectional specification and will be supplemented by detail specifications derived from Part 2 of the standard.

The specified capacitors may have 'self-healing properties' depending on conditions of use. They are primarily intended for applications where the a.c. component is small with respect to the rated voltage.

Capacitors for radio interference suppression are not included.

1.2 OBJECT. The object of this standard is to prescribe preferred ratings and characteristics and to select from AS 1541, Part 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 must be of equal or higher performance level, because degradations are not permitted.

1.3 REFERENCED DOCUMENTS. The following documents are referred to in this standard:

NOTE: All references apply to the current editions except for AS 1099 where the edition is that referred to in the applicable test clause.

AS 1099	Basic Environmental Testing Procedures for Electrotechnology (technically identical to IEC 68)
AS 1199	Sampling Procedures and Tables for Inspection by Attributes (technically identical to IEC 410)
AS 1541	Fixed Capacitors for Use in Electronic Equipment Part 1—Terminology and Methods of Test (technically identical to IEC 384-1) Part 51.2—Blank Detail Specification for Fixed Capacitors for Use in Electronic Equipment
AS 2065	Preferred Number Series for Resistors and Capacitors (technically identical to IEC 63)
AS 2066	Marking Codes for Resistors and Capacitors (technically identical to IEC 62)
SAA MP19	Report on Preferred Numbers and Their Use (technically identical to ISO 317 and ISO 497)
IEC/QC 1001	Basic Rules for the IEC Quality Assessment System for Electronic Components
IEC/QC 1002	Rules of Procedure for the IEC Quality Assessment System for Electronic Components

1.4 INFORMATION TO BE GIVEN IN A DETAIL SPECIFICATION.

1.4.1 General. Detail specifications shall be derived from the blank detail specification.

Detail specifications shall not specify requirements inferior to those of the generic or sectional specification. When more severe requirements are included they shall be listed in Clause 1.8 of the detail specification and indicated in the test schedules, e.g. by an asterisk.

NOTE: The information given in Clause 1.4.1 may be presented in tabular form.

The following information shall be given in each detail specification and the values quoted shall preferably be selected from those given in the appropriate clause of this sectional specification.

1.4.2 Outline Drawing and Dimensions. There shall be an illustration of the capacitor as an aid to easy recognition and for comparison of the capacitor with others. Dimensions and their associated tolerances, which affect interchangeability and mounting, shall be indicated upon the drawing. All dimensions shall be stated in millimetres.

Normally the numerical values shall be given for the length of the body, the width and height of the body or for cylindrical types the body diameter, and the length and diameter of the terminations. Where necessary, for example, when a number of items (capacitance values/voltage ranges) are covered by a detail specification, the dimensions and their associated tolerances shall be placed in a table below the drawing.

When the configuration is other than described above, the detail specification shall state such dimensional information as will adequately describe the capacitor. When the capacitor is not suitable for use on printed wiring boards, this shall be clearly stated in the detail specification.