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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 5076-2025

Replacing GB/T 5076-1985

**Measurement of the dimensions of a cylindrical component
with axial terminations**

具有两个轴向引出端的圆柱体元件的尺寸测量

(English Translation)

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Foreword

This document is in accordance with GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document supersedes GB/T 5076-1985 "Dimensional Measurement of Cylindrical Elements with Two Axial Leads", and is consistent with GB/T 5076-Compared to 1985, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 1985 edition);
- b) The tolerance dimensions for the slope height in Figures 1 and 2 have been changed (see Figures 1 and 2, 1985 editions of Figures 1 and 2);
- c) The method of covering the leads with the coating material was changed (see Chapter 5, Chapter 4 of the 1985 edition);
- d) The method of describing component body dimensions has been changed (see Chapter 6, Chapter 5 of the 1985 edition);
- e) Added "the content that should be specified in the relevant regulations" (see Chapter 7).

This document is equivalent to IEC 60294:2012 "Dimensional measurement of cylindrical elements with two axial leads".

This document includes a new chapter on "Terms and Definitions".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Standardization of Resistor and Capacitor Components for Electronic Equipment (SAC/TC165).

1 Scope

This document describes cylindrical resistors and capacitors for electronic devices, with two axial leads. (Body length and body diameter are not specified.) Measurement methods, and inspection methods for the lead-out ends covered with covering material.

This document applies to cylindrical resistors and capacitors (hereinafter referred to as "components") with two axial leads for use in electronic devices.

Note: The method for determining the space required for unidirectional leads is given in IEC 60717.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 General Rules

For measuring the body length, the two leads should be inserted vertically into the rectangular (or round) holes of the two gauge plates, and the two gauges should be moved parallel to each other.

The board is clamped and measured until the component body or lead is deformed.

If the measurement error caused by the size of the gauge plate and the distance between the component and the measuring device should not exceed 0.05mm, then the two gauge plates can be considered to be nearly parallel.

The component shall be measured using the standard gauge plate specified in 4.2. If the component is glass-metal sealed or has other non-metallic leads, this shall be considered.

For continuous points, the component is measured using the gauge plate specified in 4.3.

4.2 Standard gauge plate for component measurement

Unless otherwise specified in the relevant specifications, measurements of elements with two axial leads shall be performed using the gauge plate specified in Figure 1.

The gauge plate groove width or hole diameter W should be selected from Table 1 according to the nominal diameter of the lead-out end.

The specified tolerance for the groove width or hole diameter W must be near the specified inner chamfer of the groove or hole.

The dimension of component body $L1$ should be the distance between the inner sides of the gauge plate.

The thickness T of the gauge plate should ensure the stability and accuracy of the measurement, and this thickness should have no effect on the measurement length. (Except for relevant specifications) in addition, it is stipulated that the thickness T of the gauge plate should be (4.00 ± 0.05) mm.

The lead-out length $L2$ should be measured from the inner surface of the gauge plate where it contacts the component.