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

GB/T 28162.1-2026

**Packaging of components for automatic handling - Part 1: Tape
packaging of components with axial leads on continuous tapes**

自动装配用元器件的包装 第1部分：轴向引线元器件在连续带上的带式包装

(English Translation)

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Table of Contents

Preface
Introduction
1 Scope
2 Normative References
3 Terms and Definitions
4 Dimensions
4.1 General Dimensions for Tape and Reel for Axial Leads of Components
5 Packaging 4.
5.1 Overview
5.2 Reel Size
5.3 Distances W1 and W2
5.4 Recycling
5.5 Protection of Components
5.6 The reel is filled with
5.7 Fan-shaped folding packaging box dimensions
5.8 Missing Components
6 Mark
References

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 28162 "Packaging of Components for Automatic Assembly". GB/T 28162 has the following publications.

part.

---Part 1: Tape Packaging of Axial Lead Components on Continuous Tape;

---Part 2: Tape Packaging of Unidirectional Lead Components on Continuous Tape;

---Part 4: Roller-shaped magazines for electronic components in different packaging forms.

"Belt-type packaging".

The following minimal editorial changes have been made to this document.

a) Includes the amendments to IEC 60286-1:2017/AMD1:2021; the outer margin of the affected clauses is marked with...

Vertical double lines (||) indicate this.

b) ISO 11469 is an informative reference and has been moved from Chapter 2 to the References section;

c) The significant digits of the main dimensions in Tables 2 and 3 have been corrected;

d) The position descriptions of W1 and W2 in the indexing symbol description of Figure 2 have been added.

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).

Introduction

Resistors and capacitors are the most basic electronic components, widely used in electronic equipment and instruments. This series of documents aims to provide a basis for the development of electronic components in my country.

The packaging of mass-produced resistors and capacitors provides standardized and regulated technical requirements, while also providing a basis for automated assembly or automatic insertion of components in complete machines.

The device provides convenient conditions. Resistor and capacitor components are mainly available in two mounting forms. leadless and led.

GB/T 28162 is proposed to consist of 4 parts.

Tape and reel technology requirements for components used with equipment for lead preforming, automated assembly, insertion, and other operations, and the taping and reeling of components.

Required dimensions.

---Part 2: Tape Packaging of Unidirectional Lead Components on Continuous Tape. The purpose is to determine the use of unidirectional leaded components in electronic equipment.

Tape and reel technology for use with unidirectional leaded components and equipment for automated operation, lead preforming, insertion, and other operations.

Requirements and the necessary dimensions for component tape and reeling.

---Part 3: Packaging of Surface Mount Components on Continuous Strips. The purpose is to identify leadless or strip-based connections for electronic circuits.

The dimensions required for tape packaging and component taping of electronic components with lead posts; also including those for single-chip products [including bare die].

Requirements for packaging of wafer and bumped chip (flip chip)

---Part 4: Roller-shaped magazines for electronic components in different packaging forms. The purpose is to determine the intended use for storing electronic components...

From manufacturer-to-customer transport and within the manufacturing plant, rod-shaped cartridges (including end stoppers) are also used for...

Surface mount and through-hole mount electronic components provide automatic feeder feeding.

Packaging of components for automated assembly Part 1: Axial Lead Components Belt packaging on continuous belt

1 Scope

This document specifies the technical requirements for tape and reel technology used with equipment for lead preforming, automated assembly, insertion, and other operations, including only...

The dimensions necessary for the tape and reel of components used for the above purposes.

This document applies to tape packaging for axially leaded components used in electronic devices. Typically, tape and reel are used for component leads.

2 Normative references

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

This document.

Note: GB/T 5076-2025 Dimensional measurement of cylindrical components with two axial leads (IEC 60294:2012, IDT)

3 Terms and Definitions

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

The URLs for the terminology databases maintained by ISO and IEC for standardization are as follows.

4.1.1 Overview

The dimensions of the tape packaging for axial leaded components are shown in Figure 1. The tape width and permissible deviations are shown in Table 1. The component spacing and permissible cumulative deviations are also shown in Table 1.

The difference is shown in Table 2.