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

GB/T 42706.8-2026

**Electronic components - Long-term storage of electronic
semiconductor devices - Part 8: Passive electronic devices**

电子元器件 半导体器件长期贮存 第8部分：无源电子器件

(English Translation)

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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 8 of GB/T 42706 "Electronic Components and Semiconductor Devices - Long-Term Storage". GB/T 42706 has been published.

The following parts were included.

---Part 1: General Provisions;

---Part 2: Degradation Mechanisms;

---Part 3: Data;

---Part 4: Storage;

---Part 5: Chips and Wafers;

---Part 6: Encapsulating or Coating Components;

---Part 7: Microelectromechanical Devices;

---Part 8: Passive Electronic Devices;

---Part 9: Special Cases this document is equivalent to IEC 62435-8:2020 "Electronic components, semiconductor devices - Long-term storage - Part 8: Passive electronic components".

Devices.

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 Semiconductor Device Standardization Technical Committee (SAC/TC78).

Introduction

Long-term storage requires proper execution of storage procedures, especially the storage environment. The purpose of this document is to provide guidelines for the long-term storage of electronic components.

Guidance. This document proposes a method to delay obsolescence to the greatest extent possible, but it cannot guarantee that components will be in good condition after storage.

Work status.

GB/T 42706, "Electronic Components and Semiconductor Devices - Long-Term Storage," aims to ensure that components have sufficient energy reserves for use after long-term storage.

Reliability. Users are encouraged to request technical specifications from suppliers for relevant products to demonstrate that the storage process meets their needs. These specifications...

The aim is to provide relevant guidance for electronic components that require long-term

storage.

GB/T 42706 is divided into 9 parts. Parts 1 through 4 apply to all long-term storage and include general requirements and specifications.

Guidelines. Parts 5 through 9 apply to the storage of several specific product types. This is in accordance with the general requirements of Parts 1 through 4.

At the same time, the requirements for specific product types must also be met.

Starting from Part 5, we will cover electronic components that require different storage conditions.

GB/T 42706 is proposed to consist of nine parts.

---Part 1: General Provisions. The purpose is to define the relevant terms, definitions, and principles for long-term storage, and to provide effective methods for long-term storage of electronic components.

Storage concepts, good work habits, and general methods.

---Part 2: Degradation Mechanisms. The aim is to define the degradation mechanisms of electronic components over time under actual storage conditions and...

Degradation patterns and guidelines for testing methods to assess general degradation mechanisms.

---Part 3: Data. The purpose is to specify the requirements for data storage during the long-term storage of electronic components, ensuring traceability.

Traceability or data chain integrity.

---Part 4: Storage. This section describes methods for long-term storage of electronic components and related recommended conditions, including transportation and control.

Safety of manufacturing and storage facilities.

---Part 5: Chips and Wafers. The purpose is to specify individual chips, portions of wafers, or entire wafers, as well as those with metal structures (introduced).

Storage conditions and rules for chips (metal layers, ball bearings, pillar bearings, etc.), and also for general-purpose and special-purpose packaging products containing chips or wafers.

Provide operating instructions.

---Part 6: Packaged or Coated Components. The purpose is to specify the methods and recommended conditions for long-term storage of packaged or coated components.

This includes the safety of transportation, control, and storage facilities.

---Part 7: Microelectromechanical Devices. The purpose is to specify the precautions and basic requirements for long-term storage of microelectromechanical devices.

This requirement.

---Part 8: Passive Electronic Devices. The purpose is to specify the precautions and basic requirements for long-term storage of passive electronic devices.

This requirement.

---Part 9: Special Cases. This section aims to specify storage methods for special types of products and when the storage environment changes, providing users with [specific guidelines/methods].

Guidelines and requirements for interacting with suppliers help manage the complexities involved.

Long-term storage of electronic components and semiconductor devices Part 8: Passive Electronic Devices

1 Scope

This document applies to passive electronic devices intended for long-term storage and can be used as part of a strategy to delay obsolescence. Long-term storage refers to products expected to be stored long-term.

Storage periods exceeding 12 months. Typically, the original supplier affixes the packaging date or date code to the product before storage begins. Distribution.

Both suppliers and customers have a responsibility to control and manage inventory after receiving products marked with a date, or to establish a supplier-customer agreement to manage inventory.

This document provides principles, best practices, and general methods for the effective long-term storage of passive electronic devices.

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.

IEC 60749-20 Semiconductor devices - Mechanical and climatic testing methods - Part 20: Molded surface mount devices - Resistance to moisture and soldering Note. GB/T