Packaging of components for automatic handling - Part 3: Packaging of surface mount components on continuous tapes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60286-3:2022 sisaldab Euroopa standardi EN IEC 60286-3:2022 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60286-3:2022 consists of the English text of the European standard EN IEC 60286-3:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.12.2022.	Date of Availability of the European standard is 23.12.2022.
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ICS 31.020, 31.240

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60286-3

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English Version

Packaging of components for automatic handling - Part 3: Packaging of surface mount components on continuous tapes (IEC 60286-3:2022)

Emballage de composants pour opérations automatisées - Partie 3: Emballage des composants pour montage en surface en bandes continues (IEC 60286-3:2022)

Gurtung und Magazinierung von Bauelementen für automatische Verarbeitung - Teil 3: Gurtung von oberflächenmontierbaren Bauelementen auf Endlosgurten (IEC 60286-3:2022)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60286-3:2022 E

European foreword

The text of document 40/2972/FDIS, future edition 7 of IEC 60286-3, prepared by IEC/TC 40 "Capacitors and resistors for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60286-3:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-09-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-12-20

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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60068-1	NOTE Harmonized as EN 60068-1
IEC 60068-2-45	NOTE Harmonized as EN 60068-2-45
IEC 61340 (series)	NOTE Harmonized as EN IEC 61340 (series)
IEC/TR 62258-3	NOTE Harmonized as CLC/TR 62258-3
ISO 11469	NOTE Harmonized as EN ISO 11469

IEC 60286-3

Edition 7.0 2022-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Packaging of components for automatic handling – Part 3: Packaging of surface mount components on continuous tapes

Emballage de composants pour opérations automatisées – Partie 3: Emballage des composants pour montage en surface en bandes continues

IEC 60286-3:2022-11 (en-fr)

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IEC 60286-3

Edition 7.0 2022-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

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Emballage de composants pour opérations automatisées – Partie 3: Emballage des composants pour montage en surface en bandes continues

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING –

Part 3: Packaging of surface mount components on continuous tapes

FOREWORD

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IEC 60286-3 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

This seventh edition cancels and replaces the sixth edition published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) addition terms and definitions.
b) addition of a table of the classification to symbols concerning drive hole diameter and distance between the reel hole centre and the drive hole centre;
c) addition of drive hole to the reel (optional);
d) revision of reel hole diameter tolerances;
e) revision of 72 mm tape size carrier tape width dimension tolerances;

f) addition of Annex B (informative);

g) addition of component size 0201M.

The text of this International Standard is based on the following documents:

Draft	Report on voting
40/2972/FDIS	40/2984/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 60268 series, published under the general title *Packaging of components for automatic handling*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Tape packaging meets the requirements of automatic component placement machines and also covers the use of tape packaging for components and singulated dies for test purposes and other operations.

PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING –

Part 3: Packaging of surface mount components on continuous tapes

1 Scope

This part of IEC 60286 is applicable to the tape packaging of electronic components without leads or with lead stumps, intended to be connected to electronic circuits. It includes only those dimensions that are essential for the taping of components intended for the above-mentioned purposes.

This document also includes requirements related to the packaging of singulated die products including bare die and bumped die (flip chips).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60191-2, *Mechanical standardization of semiconductor devices – Part 2: Dimensions*

IEC 61340-4-5, *Electrostatics – Part 4-5: Standard test methods for specific applications – Methods for characterizing the electrostatic protection of footwear and flooring in combination with a person*

IEC 61340-4-6, *Electrostatics – Part 4-6: Standard test methods for specific applications – Wrist straps*

IEC 61340-4-7, *Electrostatics – Part 4-7: Standard test methods for specific applications – Ionization*

IEC 61340-4-9, *Electrostatics – Part 4-9: Standard test methods for specific applications – Garments*

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply. Definitions apply to all tape types, unless specifically mentioned.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp