IEC 60286-5

Edition 3.0 2018-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Packaging of components for automatic handling –
Part 5: Matrix trays

Emballage de composants pour opérations automatisées –
Partie 5: Supports matriciels

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FOREWORD

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International Standard IEC 60286-5 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This third edition cancels and replaces the second edition published in 2003 and Amendment 1:2009. This edition constitutes a technical revision.

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

a) The generic rules for the design of matrix trays are given in this document. Newly developed trays which follow these rules will not be listed individually. Only those trays which conform to the design rules set forth herein are classified as "standard trays" and are thus preferred for use.
b) An update of the matrix trays, which do not conform to the design rules set forth herein, are considered as "non-standard trays" and are not preferred for use, is listed in Annex A.

This bilingual version (2018-11) corresponds to the monolingual English version, published in 2018-04.

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

CDV	Report on voting
40/2556/CDV	40/2597/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

The French version of this standard has not been voted upon.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60286 series, published under the general title *Packaging of components for automatic handling*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://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- withdrawn,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.

PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING –

Part 5: Matrix trays

1 Scope

This part of IEC 60286 describes the common dimensions, tolerances and characteristics of the tray. It includes only those dimensions that are essential for the handling of the trays for the stated purpose and for placing or removing components from the trays.

Matrix trays are designed to facilitate the transport and handling of electronic components during their testing, baking, transport/storage, and final mounting by automatic placement equipment.

The generic rules for their design are given in this document. Newly developed trays that follow these rules will not be listed individually. Only those trays that conform to the design rules set forth herein are classified as "standard trays" and are thus preferred for use.

NOTE Matrix trays listed in Annex A that do not conform to the design rules set forth herein shall be considered as "non-standard trays" and are not preferred for use.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

No terms and definitions are listed in this document.

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

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

3.2 Abbreviated terms

The following are the abbreviated terms used in Table A.1 and Table A.3.

ball grid array (ball grid array type package)	**BGA**
ceramic quad flat package (ceramic quad flat type package)	**CQFP**
metric quad flat package (metric quad flat type package)	**MQFP**
plastic leaded chip carrier (plastic leaded type chip carrier)	**PLCC**
plastic quad flat package (plastic quad flat type package)	**PQFP**
thin quad flat package (thin quad flat type package)	**TQFP**
small outline j-leaded package (small outline j-leaded type package)	**SOJ**
type 1 thin small outline package (thin small outline type package1)	**TSOP (I)**
type 2 thin small outline package (thin small outline type package2)	**TSOP (II)**