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Semiconductor devices - Micro-electromechanical devices - Part 26: Description and measurement methods for micro trench and needle structures

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/16

Obsahuje: EN 62047-26:2016, IEC 62047-26:2016

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62047-26

April 2016

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English Version

Semiconductor devices - Micro-electromechanical devices - Part 26: Description and measurement methods for micro trench and needle structures (IEC 62047-26:2016)

Dispositifs à semiconducteurs - Dispositifs microélectromécaniques - Partie 26: Description et méthodes de mesure pour structures de microtranchées et de microaiguille (IEC 62047-26:2016)

Halbleiterbauelemente - Bauelemente der Mikrosystemtechnik - Teil 26: Beschreibung und Messverfahren für Mikro-Rillen und Nadelstrukturen (IEC 62047-26:2016)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62047-26:2016 E

European foreword

The text of document 47F/233/FDIS, future edition 1 of IEC 62047-26, prepared by SC 47F "Micro-electromechanical systems", of IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62047-26:2016.

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) 2016-11-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-02-11

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In the official version, for Bibliography, the following note has to be added for the standard indicated :

ISO 3274:1996	NOTE	Harmonized as EN ISO 3274:1997 (not modified).

IEC 62047-26

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INTERNATIONAL STANDARD

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FOREWORD

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International Standard IEC 62047-26 has been prepared by subcommittee 47F: Microelectromechanical systems, of IEC technical committee 47: Semiconductor devices.

The text of this standard is based on the following documents:

FDIS	Report on voting
47F/233/FDIS	47F/239/RVD

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

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

A list of all parts in the IEC 62047 series, published under the general title *Semiconductor devices – Micro-electromechanical devices*, can be found on the IEC website.

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

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

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SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

Part 26: Description and measurement methods for micro trench and needle structures

1 Scope

This part of IEC 62047 specifies descriptions of trench structure and needle structure in a micrometer scale. In addition, it provides examples of measurement for the geometry of both structures. For trench structures, this standard applies to structures with a depth of 1 μm to 100 μm; walls and trenches with respective widths of 5 μm to 150 μm; and aspect ratio of 0,006 7 to 20. For needle structures, the standard applies to structures with three or four faces with a height, horizontal width and vertical width of 2 μm or larger, and with dimensions that fit inside a cube with sides of 100 μm.

This standard is applicable to the structural design of MEMS and geometrical evaluation after MEMS processes.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

None.