ICS 31.080.99 SLOVENSKÁ TECHNICKÁ NORMA Február 2014

STN	**Polovodičové súčiastky. Elektromechanické mikrosúčiastky. Časť 18: Skúšobné metódy ohybom tenkovrstvových materiálov.**	**STN EN 62047-18** 35 8792

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This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/14

Obsahuje: EN 62047-18:2013, IEC 62047-18:2013

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62047-18

September 2013

ICS 31.080.99

English version

Semiconductor devices - Micro-electromechanical devices - Part 18: Bend testing methods of thin film materials

(IEC 62047-18:2013)

Dispositifs à semiconducteurs - Dispositif microélectromécaniques - Partie 18: Méthodes d'essai de flexion des matériaux en couche mince (CEI 62047-18:2013)

Halbleiterbauelemente - Bauelemente der Mikrosystemtechnik - Teil 18: Biegeprüfverfahren für Dünnschichtwerkstoffe (IEC 62047-18:2013)

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Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN 62047-18:2013 E

Foreword

The text of document 47F/155/FDIS, future edition 1 of IEC 62047-18, prepared by SC 47F “Microelectromechanical systems” of IEC/TC 47 “Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62047-18:2013.

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)	2014-05-21
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Annex ZA
(normative)

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NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 62047-6	2009	Semiconductor devices - Micro-electromechanical devices - Part 6: Axial fatigue testing methods of thin film materials	EN 62047-6	2010

IEC 62047-18

Edition 1.0 2013-07

INTERNATIONAL STANDARD

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Semiconductor devices – Micro-electromechanical devices – Part 18: Bend testing methods of thin film materials

Dispositifs à semiconducteurs – Dispositifs microélectromécaniques – Partie 18: Méthodes d'essai de flexion des matériaux en couche mince

IEC 62047-18:2013

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IEC 62047-18

Edition 1.0 2013-07

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX

M

ICS 31.080.99

ISBN 978-2-8322-0982-0

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SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

Part 18: Bend testing methods of thin film materials

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International Standard IEC 62047-18 has been prepared by subcommittee 47F: Micro-electromechanical systems, of IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47F/155/FDIS	47F/162/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.

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SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

Part 18: Bend testing methods of thin film materials

1 Scope

This part of IEC 62047 specifies the method for bend testing of thin film materials with a length and width under 1 mm and a thickness in the range between 0,1 μm and 10 μm. Thin films are used as main structural materials for Micro-electromechanical Systems (abbreviated as MEMS in this document) and micromachines.

The main structural materials for MEMS, micromachines, etc., have special features, such as a few micron meter size, material fabrication by deposition, photolithography, and/ or non-mechanical machining test piece. This International Standard specifies the bend testing and test piece shape for micro-sized smooth cantilever type test pieces, which enables a guarantee of accuracy corresponding to the special features.

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.

IEC 62047-6:2009, *Semiconductor devices – Micro-electromechanical devices – Part 6: Axial fatigue testing methods of thin film materials*