SLOVENSKI STANDARD

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Polprevodniški elementi - Mehanske in klimatske preskusne metode - 26. del: Preskušanje občutljivosti na elektrostatične izpraznitve (ESD) - Model človeškega telesa (HBM) (IEC 60749-26:2006)

(istoveten EN 60749-26:2006)

Semiconductor devices - Mechanical and climatic test methods - Part 26: Electrostatic discharge (ESD) sensitivity testing - Human body model (HBM) (IEC 60749-26:2006)

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 60749-26

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English version

Semiconductor devices - Mechanical and climatic test methods Part 26: Electrostatic discharge (ESD) sensitivity testing - Human body model (HBM)
(IEC 60749-26:2006)

Dispositifs à semiconducteurs -
Méthodes d'essais mécaniques
et climatiques
Partie 26: Essai de sensibilité aux
décharges électrostatiques (DES) -
Modèle du corps humain (HBM)
(CEI 60749-26:2006)

Halbleiterbauelemente -
Mechanische und klimatische
Prüfverfahren
Teil 26: Prüfung der Empfindlichkeit
gegen elektrostatische Entladungen
(ESD) -
Human Body Model (HBM)
(IEC 60749-26:2006)

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Ref. No. EN 60749-26:2006 E

Foreword

The text of document 47/1859/FDIS, future edition 2 of IEC 60749-26, prepared by IEC TC 47, Semiconductor devices, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60749-26 on 2006-08-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2007-05-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-08-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60749-26:2006 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

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 60749-27	-[1)]	Semiconductor devices - Mechanical and climatic test methods Part 27: Electrostatic discharge (ESD) sensitivity testing - Machine model (MM)	EN 60749-27	2006[2)]
IEC 61340-3-1	-[1)]	Electrostatics Part 3-1: Methods for simulation of electrostatic effects - Human body model (HBM) - Component testing	EN 61340-3-1	2002[2)]

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1) Undated reference.

2) Valid edition at date of issue.

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Deuxième édition
Second edition
2006-07

Dispositifs à semiconducteurs – Méthodes d'essais mécaniques et climatiques –

Partie 26: Essai de sensibilité aux décharges électrostatiques (DES) – Modèle du corps humain (HBM)

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Semiconductor devices – Mechanical and climatic test methods –

Part 26: Electrostatic discharge (ESD) sensitivity testing – Human body model (HBM)

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SEMICONDUCTOR DEVICES – MECHANICAL AND CLIMATIC TEST METHODS –

Part 26: Electrostatic discharge (ESD) sensitivity testing – Human body model (HBM)

FOREWORD

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International Standard IEC 60749-26 has been prepared by IEC technical committee 47: Semiconductor devices.

This second edition cancels and replaces the first edition, published in 2003, and has been revised in collaboration with technical committee 101. Whilst it does not contain any major technical changes, reference is now made, where necessary, to IEC 61340-3-1.

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

FDIS	Report on voting
47/1859/FDIS	47/1871RVD

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 of IEC 60749 series, under the general title *Semiconductor devices – Mechanical and climatic test methods* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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 – MECHANICAL AND CLIMATIC TEST METHODS –

Part 26: Electrostatic discharge (ESD) sensitivity testing – Human body model (HBM)

1 Scope

This part of IEC 60749 establishes a standard procedure for testing and classifying semiconductor devices according to their susceptibility to damage or degradation by exposure to a defined human body model (HBM) electrostatic discharge (ESD). The objective is to provide reliable, repeatable HBM ESD test results so that accurate classifications can be performed.

This test method is applicable to all semiconductor devices and is classified as destructive.

ESD testing of semiconductor devices is selected from this test method, the machine model (MM) test method (see IEC 60749-27) or other ESD test methods in the IEC 60749 series. The HBM and MM test methods produce similar but not identical results; unless otherwise specified, this test method is the one selected.

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NOTE Certain clauses in this test method are in accordance with IEC 61340-3-1.

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2 Normative references

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IEC 60749-27, *Semiconductor devices – Mechanical and climatic test methods – Part 27: Electrostatic discharge (ESD) sensitivity testing – Machine model (MM)*

IEC 61340-3-1:*Electrostatics – Part 3-1: Methods for simulation of electrostatic effects – Human body model (HBM) electrostatic discharge test waveforms*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
device under test
DUT
semiconductor product subjected to HBM ESD test