SLOVENSKI STANDARD
SIST EN 60747-5-2:2002/A1:2004

01-november-2004

Diskretni polprevodniki in integrirana vezja - 5-2. del: Optoelektronske naprave - Bistvene lastnosti in karakteristike - Dopolnilo A1 (IEC 60747-5-2:1997/A1:2002)

Discrete semiconductor devices and integrated circuits -- Part 5-2: Optoelectronic devices - Essential ratings and characteristics

Einzel-Halbleiterbauelemente und integrierte Schaltungen -- Teil 5-2: Optoelektronische Bauelemente - Wesentliche Grenz- und Kennwerte

Dispositifs discrets à semiconducteurs et circuits intégrés -- Partie 5-2: Dispositifs optoélectroniques - Valeurs limites et caractéristiques essentielles

Ta slovenski standard je istoveten z: EN 60747-5-2:2001/A1:2002

ICS:

31.080.01	Polprevodniški elementi (naprave) na splošno	Semiconductor devices in general
31.200	Integrirana vezja, mikroelektronika	Integrated circuits. Microelectronics
31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment

SIST EN 60747-5-2:2002/A1:2004 en

EUROPEAN STANDARD **EN 60747-5-2/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM May 2002

ICS 31.080.99

English version

Discrete semiconductor devices and integrated circuits Part 5-2: Optoelectronic devices - Essential ratings and characteristics

(IEC 60747-5-2:1997/A1:2002)

Dispositifs discrets à semiconducteurs et circuits intégrés
Partie 5-2: Dispositifs optoélectroniques - Valeurs limites et caractéristiques essentielles
(CEI 60747-5-2:1997/A1:2002)

Einzel-Halbleiterbauelemente und integrierte Schaltungen
Teil 5-2: Optoelektronische Bauelemente - Wesentliche Grenz- und Kennwerte
(IEC 60747-5-2:1997/A1:2002)

This amendment A1 modifies the European Standard EN 60747-5-2:2001; it was approved by CENELEC on 2002-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Ref. No. EN 60747-5-2:2001/A1:2002 E

Foreword

The text of document 47E/209/FDIS, future amendment 1 to IEC 60747-5-2:1997, prepared by SC 47E, Discrete semiconductor devices, of IEC TC 47, Semiconductor devices, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60747-5-2:2001 on 2002-05-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-02-01

– latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2005-05-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes B and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of amendment 1:2002 to the International Standard IEC 60747-5-2:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

Add:

Publication	Year	Title	EN/HD	Year
IEC 60112	1979	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
IEC 60216-1	1990	Guide for the determination of thermal endurance properties of electrical insulating materials Part 1: General guidelines for ageing procedures and evaluation of test results	HD 611.1 S1 [1)]	1992
IEC 60216-2	1990	Part 2: Choice of test criteria	HD 611.2 S1	1992
IEC 60672-2	1980	Specification for ceramic and glass insulating materials Part 2: Methods of test	HD 426.2 S1 [2)]	1987

[1)] HD 611.1 S1 is superseded by EN 60216-1:2001, which is based on IEC 60216-1:2001.

[2)] HD 426.2 S1 is superseded by EN 60672-2:2000, which is based on IEC 60672-2:1999.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI IEC 60747-5-2

1997

AMENDEMENT 1
AMENDMENT 1
2002-03

Amendement 1

Dispositifs discrets à semiconducteurs et circuits intégrés –

Partie 5-2: Dispositifs optoélectroniques – Valeurs limites et caractéristiques essentielles

Amendment 1

Discrete semiconductor devices and integrated circuits –

Part 5-2: Optoelectronic devices – Essential ratings and characteristics

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Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE L

Pour prix, voir catalogue en vigueur
For price, see current catalogue

FOREWORD

This amendment has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47E/209/FDIS	47E/214/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2004. At this date, the publication will be

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

Page 7

Add the following new introduction:

INTRODUCTION

This part of IEC 60747 provides basic information on semiconductors:

– terminology,
– letter symbols,
– essential ratings and characteristics,
– measuring methods,
– acceptance and reliability.

Page 9

2 Normative references

Add the following references to the list:

IEC 60112:1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions*

IEC 60216-1:1990, *Guide for the determination of thermal endurance properties of electrical insulating materials – Part 1: General guidelines for ageing procedures and evaluation of test results*

IEC 60216-2:1990, *Guide for the determination of thermal endurance properties of electrical insulating materials – Part 2: Choice of test criteria*

IEC 60672-2:1980, *Specification for ceramic and glass insulating materials – Part 2: Methods of test*

Page 31

8 Photocouplers (optocouplers) providing protection against electrical shock

Add the following new paragraph:

All requirements contained in this clause are valid for photocouplers (optocouplers) with a solid insulation in one package, whatever the configuration of the input and/or the output may be (e.g. phototransistor, logic output,.etc.).

8.1 Type

Replace the existing paragraphs with the following new paragraph:

Ambient-rated or case-rated photocoupler (optocoupler) with ... (indicate here the kind of input and/or output) .... designed to provide protection against electrical shock, when bridging double or reinforced isolation.

8.2.1 Input

Add the following new paragraph:

Gallium Arsenide, Gallium Aluminum Arsenide, etc.

8.2.2 Output

Add the following new paragraph:

Silicon, etc.

8.3 Details on outline and encapsulation

Add the following new subclauses:

8.3.1 IEC and/or national reference number of the outline drawing

8.3.2 Method of encapsulation

8.3.3 Terminal identification and indication of any connection between a terminal and the case

Replace the existing subclauses 8.4 to 8.6.3.6.1 by the following new subclauses 8.4 to 8.6.3.6.1:

8.4 Ratings (have to be mentioned in a special section in the manufacturer's data sheet)

8.4.1 Safety ratings

a) Maximum ambient safety temperature (T_s)

b) Maximum input current or maximum input power dissipation (I_{si} or P_{si})

c) Maximum output current or maximum output power dissipation (I_{so} or P_{so})