

Semiconductor devices - Part 5-5: Optoelectronic
devices - Photocouplers

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NATIONAL FOREWORD

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English Version

**Semiconductor devices - Part 5-5: Optoelectronic devices -
Photocouplers
(IEC 60747-5-5:2020)**

Dispositifs à semiconducteurs - Partie 5-5 : Dispositifs
optoélectroniques - Photocoupleurs
(IEC 60747-5-5:2020)

Halbleiterbauelemente - Teil 5-5: Optoelektronische
Bauelemente - Optokoppler
(IEC 60747-5-5:2020)

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European foreword

The text of document 47E/706/FDIS, future edition 2 of IEC 60747-5-5, prepared by SC 47E "Discrete semiconductor devices" of IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60747-5-5:2020.

The following dates are fixed:

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|----------------|------|--|
| IEC 60065 | NOTE | Harmonized as EN 60065 |
| IEC 60270:2000 | NOTE | Harmonized as EN 60270:2001 (not modified) |
| IEC 60747-5-2 | NOTE | Harmonized as EN 60747-5-2 |
| IEC 60747-5-3 | NOTE | Harmonized as EN 60747-5-3 |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|---------------|-------------|
| IEC 60068-1 | 2013 | Environmental testing - Part 1: General and guidance | EN 60068-1 | 2014 |
| IEC 60068-2-1 | - | Environmental testing - Part 2-1: Tests - Test A: Cold | EN 60068-2-1 | - |
| IEC 60068-2-2 | - | Environmental testing - Part 2-2: Tests - Test B: Dry heat | EN 60068-2-2 | - |
| IEC 60068-2-6 | - | Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) | EN 60068-2-6 | - |
| IEC 60068-2-14 | - | Environmental testing - Part 2-14: Tests - Test N: Change of temperature | EN 60068-2-14 | - |
| IEC 60068-2-17 | - | Basic environmental testing procedures - Part 2-17: Tests - Test Q: Sealing | EN 60068-2-17 | - |
| IEC 60068-2-20 | - | Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads | EN 60068-2-20 | - |
| IEC 60068-2-27 | - | Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock | EN 60068-2-27 | - |
| IEC 60068-2-30 | - | Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) | EN 60068-2-30 | - |
| IEC 60068-2-58 | - | Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD) | EN 60068-2-58 | - |
| IEC 60068-2-78 | - | Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state | EN 60068-2-78 | - |
| IEC 60112 | - | Method for the determination of the proof and the comparative tracking indices of solid insulating materials | EN 60112 | - |

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---|----------------|-------------|
| IEC 60216-1 | - | Electrical insulating materials - Thermal endurance properties - Part 1: Ageing procedures and evaluation of test results | EN 60216-1 | - |
| IEC 60216-2 | - | Electrical insulating materials - Thermal endurance properties - Part 2: Determination of thermal endurance properties of electrical insulating materials - Choice of test criteria | EN 60216-2 | - |
| IEC 60664-1 | 2007 | Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests | EN 60664-1 | 2007 |
| IEC 60672-2 | - | Ceramic and glass insulating materials - Part 2: Methods of test | EN 60672-2 | - |
| IEC 60695-11-5 | - | Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance | EN 60695-11-5 | - |
| IEC 61000-4-5 | - | Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test | EN 61000-4-5 | - |
| IEC 62368-1 | 2018 | Audio/video, information and communication technology equipment - Part 1: Safety requirements | EN IEC 62368-1 | 2020 |

INTERNATIONAL STANDARD

**Semiconductor devices –
Part 5-5: Optoelectronic devices – Photocouplers**



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IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

INTERNATIONAL STANDARD

**Semiconductor devices –
Part 5-5: Optoelectronic devices – Photocouplers**

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SEMICONDUCTOR DEVICES –

Part 5-5: Optoelectronic devices –
Photocouplers

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International Standard IEC 60747-5-5 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

This second edition cancels and replaces the first edition published in 2007 and Amendment 1:2013. This edition constitutes a technical revision.

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

- a) optional data sheet basic insulation rating in accordance with IEC 60664-1:2007, 6.1.3.5;
- b) editorial corrections on the use of V_{IORM} ;
- c) editorial corrections on Figure 2: Time intervals for method b);
- d) addition of an alternative surge pulse V_{IOSM} test method.

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

| FDIS | Report on voting |
|--------------|------------------|
| 47E/706/FDIS | 47E/714/RVD |

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.

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

A list of all parts in the IEC 60747 series, published under the general title *Semiconductor devices*, can be found on the IEC website.

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