



# PUBLICLY AVAILABLE SPECIFICATION

## PRE-STANDARD

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**Semiconductor devices – Discrete devices –  
Part 17: Magnetic and capacitive coupler for basic and reinforced isolation**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE

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ICS 31.080.99

ISBN 978-2-88912-792-4

## CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references .....	7
3 Magnetic and Capacitive Coupler .....	8
3.1 Semiconductor material.....	8
3.2 Details of outline and encapsulation .....	8
3.2.1 Outline drawing .....	8
3.2.2 Method of encapsulation.....	9
3.2.3 Terminal identification and indication of any connection between a terminal and the case .....	9
3.3 Type of coupler .....	9
3.3.1 SiO <sub>2</sub> Isolators .....	9
3.3.2 Thin film Polymer Isolators .....	9
4 Terms related to ratings and characteristics for a coupler.....	9
4.1 Isolation sides .....	9
4.2 Isolation capacitance: $C_{IO}$ .....	9
4.3 Isolation resistance: $R_{IO}$ .....	9
4.4 Isolation voltage .....	9
4.5 Logic state match .....	9
4.6 Logic state transition match.....	9
4.7 Common mode transient immunity (CMTI).....	10
4.8 Magnetic field immunity (MFI).....	10
4.8.1 Static magnetic field immunity (SMFI).....	10
4.8.2 Variable magnetic field immunity (VMFI).....	10
4.9 Propagation Delay: $t_{pLH}$ or $t_{pHL}$ .....	10
4.10 Further terms and abbreviations.....	10
5 Terms for couplers providing protection against electrical shock.....	10
5.1 Safety ratings of couplers for reinforced insulation .....	10
5.2 Electrical safety requirements of couplers for basic and reinforced insulation .....	10
5.2.1 Partial discharge (pd) .....	11
5.2.2 Apparent charge: $q_{pd}$ .....	11
5.2.3 Threshold apparent charge: $q_{pd(TH)}$ .....	11
5.2.4 Test voltages and time intervals for the partial-discharge test of couplers .....	11
5.2.5 Lifetime (Lifetime).....	15
5.2.6 Failure Rate over Lifetime (FROL).....	15
5.2.7 Statistical model (model) .....	15
5.3 Isolation voltages and isolation test voltages for couplers providing protection against electrical shock.....	15
5.3.1 Rated isolation voltages .....	15
5.4 Absolute maximum ratings .....	16
5.4.1 Minimum and maximum storage temperatures: $T_{stg}$ .....	16
5.4.2 Minimum and maximum ambient or reference-point operating temperatures: $T_{amb}$ or $T_{ref}$ .....	16
5.4.3 Maximum soldering temperature: $T_{sld}$ .....	16
5.4.4 Maximum continuous (direct) reverse input voltage ( $V_R$ ) over the operating temperature range .....	16

5.4.5	Maximum continuous (direct) or repetitive peak isolation voltage ( $V_{IO}$ or $V_{IORM}$ ) over the operating temperature range .....	16
5.4.6	Maximum surge isolation voltage ( $V_{IOSM}$ ) over the operating temperature range .....	16
5.4.7	Maximum continuous input current ( $I_I$ ) at an ambient or reference-point temperature of 25 °C and derating curve or derating factor .....	17
5.4.8	Maximum peak input current ( $I_{IM}$ ) at an ambient or reference-point temperature of 25 °C and under specified pulse conditions .....	17
5.4.9	Maximum power dissipation ( $P_{trn}$ ) of the output stage at an ambient or reference- point temperature of 25 °C and a derating curve or derating factor .....	17
5.4.10	Maximum total power dissipation of the package ( $P_{tot}$ ) at an ambient or reference- point temperature of 25 °C and derating curve or derating factor .....	17
6	Electrical characteristics .....	17
6.1	Coupler logic and timing definitions .....	17
7	Coupler protection against electrical shock .....	18
7.1	Type .....	18
7.2	Ratings (shall be listed in a special section in the manufacturer's datasheet) .....	18
7.2.1	Safety Limiting Values .....	18
7.2.2	Functional ratings .....	18
7.2.3	Rated isolation voltages .....	18
7.3	Electrical safety requirements .....	19
7.4	Electrical, environmental and/or endurance test information: (supplementary information if desired by the manufacturer) .....	19
7.4.1	Routine test .....	19
7.4.2	Sample test .....	19
7.4.3	Type Test .....	20
8	Measuring methods for couplers .....	28
8.1	Input-to-output capacitance ( $C_{IO}$ ) .....	28
8.1.1	Purpose .....	28
8.1.2	Circuit diagram .....	28
8.1.3	Measurement procedure .....	28
8.1.4	Precautions to be observed .....	29
8.1.5	Special conditions .....	29
8.2	Isolation resistance between input and output, $R_{IO}$ .....	29
8.2.1	Purpose .....	29
8.2.2	Circuit diagram .....	29
8.2.3	Precautions to be observed .....	29
8.2.4	Measurement procedure .....	29
8.2.5	Special conditions .....	29
8.3	Isolation test .....	30
8.3.1	Purpose .....	30
8.3.2	Circuit diagram .....	30
8.3.3	Test procedure .....	30
8.3.4	Requirements .....	30
8.3.5	Specified conditions .....	30
8.4	Partial discharges of magnetic couplers .....	31
8.4.1	Purpose .....	31
8.4.2	Circuit diagram .....	31

8.4.3	Description of the test circuit and requirements .....	31
8.4.4	Test procedure .....	32
8.4.5	Specified conditions .....	33
8.5	Switching times of couplers .....	34
8.5.1	Purpose.....	34
8.5.2	Circuit diagram .....	34
8.5.3	Circuit description and requirements.....	34
8.5.4	Precautions to be observed .....	34
8.5.5	Measurement procedure .....	34
8.5.6	Specified conditions .....	35
8.6	Measuring methods of common-mode transient immunity (CMTI) for magnetic couplers .....	36
8.6.1	Purpose.....	36
8.6.2	Circuit diagram .....	36
8.6.3	Circuit description and requirements.....	36
8.6.4	Precautions to be observed .....	36
8.6.5	Measuring procedure.....	37
8.6.6	Specified conditions .....	38
8.7	Measuring methods of magnetic field immunity for couplers .....	38
8.7.1	Purpose.....	38
8.7.2	Circuit diagram .....	39
8.7.3	Circuit description and requirements.....	39
8.7.4	Measuring procedure as specified by IEC-61000-4-8 and IEC-61000-4-9 ..	39
8.8	Surge test of the isolation.....	39
Figure 1	– Time intervals for method a) of the test voltage .....	13
Figure 2	– Time intervals for method b) of the test voltage .....	14
Figure 3	– Basic isolation capacitance measurement circuit.....	28
Figure 4	– Basic isolation resistance measurement circuit .....	29
Figure 5	– Basic isolation voltage measurement circuit .....	30
Figure 6	– Partial discharge test circuit .....	31
Figure 7	– Connections for the calibration of the complete test arrangement.....	32
Figure 8	– Switching time test circuit.....	34
Figure 9	– Transition time waveform measurement .....	35
Figure 10	– Propagation delay time waveform measurement.....	35
Figure 11	– Common-mode transient immunity (CMTI) measurement circuit for couplers.....	36
Figure 12	– Common-mode transient immunity (CMTI) + $V_{CM}$ or $-V_{CM}$ waveform .....	38
Figure 13	– Magnetic field immunity (MFI) test circuit .....	39
Table 1	– Overview of characteristics and symbols .....	17
Table 2	– Datasheet characteristics .....	19
Table 3	– Tests and test sequence for coupler providing basic insulation and reinforced insulation for protection against electrical shock.....	26
Table 4	– Test conditions .....	28
Table 5	– Specified conditions .....	33

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### SEMICONDUCTOR DEVICES – DISCRETE DEVICES –

#### Part 17: Magnetic and capacitive coupler for basic and reinforced isolation

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IEC-PAS 60747-17 has been processed by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document

<b>Draft PAS</b>	<b>Report on voting</b>
47E/412/PAS	47E/423/RVD

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Withdrawn

## SEMICONDUCTOR DEVICES – DISCRETE DEVICES –

### Part 17: Magnetic and capacitive coupler for basic and reinforced isolation

#### 1 Scope

This PAS gives the terminology, essential ratings, characteristics, safety test and the measuring methods of magnetic and capacitive couplers.

It specifies the principles of magnetic and capacitive coupling across an isolation barrier and the related requirements for basic isolation and reinforced insulation.

#### 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 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60068-2-67, *Environmental testing – Part 2-67: Tests – Test Cy: Damp heat, steady state, accelerated test primarily intended for components*

IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-17:1994, *Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing*

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*

IEC 60068-2-27, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-30, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 + 12 h cycle)*

IEC 60068-2-58:2004, *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)*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60216-1, *Electrical insulating materials – Properties of thermal endurance – Part 1: Ageing procedures and evaluation of test results*

IEC 60216-2: *Electrical insulating materials – Thermal endurance properties – Part 2: Determination of thermal endurance properties of electrical insulating materials – Choice of test criteria*

IEC 60270:2000, *High-voltage test techniques – Partial discharge measurements*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60672-2, *Ceramic and glass insulating materials – Part 2: Methods of test*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 61000-4-5, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-8, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test*

IEC 61000-4-9, *Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 9: Pulse magnetic field immunity test*

IEC 62539, *Guide for the statistical analysis of electrical insulation breakdown data*