

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Semiconductor devices –
Part 2: Discrete devices – Rectifier diodes**

**Dispositifs à semiconducteurs –
Partie 2: Dispositifs discrets – Diodes de redressement**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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Part 2: Discrete devices – Rectifier diodes**

**Dispositifs à semiconducteurs –
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CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
3.1 General terms and definitions	7
3.2 Voltages	8
3.3 Currents.....	9
3.4 Power dissipation.....	10
3.5 Switching characteristics	11
4 Letter symbols.....	14
4.1 General.....	14
4.2 List of letter symbols	14
4.2.1 Voltages	14
4.2.2 Currents	14
4.2.3 Powers	15
4.2.4 Switching.....	15
5 Essential ratings and characteristics	16
5.1 General.....	16
5.2 Ratings (limiting conditions).....	16
5.2.1 Storage temperature (T_{stg})	16
5.2.2 Operating ambient or heatsink or case or junction temperature (T_a or T_s or T_c or T_{vj}).....	16
5.2.3 Non-repetitive peak reverse voltage (V_{RSM}).....	16
5.2.4 Repetitive peak reverse voltage (V_{RRM}) (where appropriate).....	16
5.2.5 Continuous (direct) reverse voltage (V_R) (where appropriate).....	16
5.2.6 Mean forward current ($I_{F(AV)}$).....	16
5.2.7 R.M.S forward current ($I_{F(R.M.S.)}$).....	16
5.2.8 Repetitive peak forward current (I_{FRM}) (where appropriate)	16
5.2.9 Non-repetitive surge forward current (I_{FSM})	16
5.2.10 Continuous (direct) forward current (I_F).....	17
5.2.11 Peak case non-rupture current (I_{RSMC}) (where appropriate)	17
5.2.12 Non-repetitive surge reverse power dissipation (P_{RSM}) (for avalanche rectifier diodes).....	17
5.2.13 Repetitive peak reverse power dissipation (P_{RRM}) (for avalanche rectifier diodes).....	17
5.2.14 Mean reverse power dissipation ($P_{R(AV)}$) (for avalanche rectifier diodes) 17	17
5.2.15 Mounting torque (M) (where appropriate).....	17
5.2.16 Clamping force (F) for disc type diodes (where appropriate).....	17
5.3 Characteristics	17
5.3.1 General	17
5.3.2 Forward voltage (V_F).....	17
5.3.3 Peak forward voltage (V_{FM}) (where appropriate)	18
5.3.4 Breakdown voltage ($V_{(BR)}$) (of an avalanche rectifier diode)	18
5.3.5 Continuous (direct) reverse current ($I_{R(D)}$).....	18
5.3.6 Repetitive peak reverse current (I_{RRM}) (where appropriate)	18
5.3.7 Recovered charge (Q_r) (where appropriate).....	18

5.3.8	Total capacitive charge (Q_C) (where appropriate)	18
5.3.9	Peak reverse recovery current (I_{RRM}) (where appropriate)	18
5.3.10	Reverse recovery time (t_{rr}) (where appropriate)	19
5.3.11	Reverse recovery energy (E_{rr}) (where appropriate)	19
5.3.12	Forward recovery time (t_{fr}) (where appropriate)	19
5.3.13	Peak forward recovery voltage (V_{FRM}) (where appropriate)	19
5.3.14	Reverse recovery softness factor (S_{rr}) (where appropriate)	19
5.3.15	Thermal resistance (R_{th})	19
5.3.16	Transient thermal impedance ($Z_{th}(t)$) (where appropriate)	19
6	Measuring and test methods	19
6.1	Measuring methods for electrical characteristics	19
6.1.1	General	19
6.1.2	Forward voltage (V_F , V_{FM})	20
6.1.3	Breakdown voltage ($V_{(BR)}$) of avalanche rectifier diodes	23
6.1.4	Reverse current (I_R)	23
6.1.5	Repetitive peak reverse current (I_{RRM})	24
6.1.6	Recovered charge, reverse recovery time, reverse recovery energy and softness factor (Q_r , t_{rr} , E_{rr} , S_{rr})	25
6.1.7	Forward recovery time (t_{fr}) and peak forward recovery voltage (V_{frm})	30
6.1.8	Total capacitive charge (Q_C)	32
6.2	Measuring methods for thermal characteristics	33
6.2.1	General	33
6.2.2	Thermal resistance ($R_{th(j-r)}$) and transient thermal impedance ($Z_{th(j-r)}(t)$)	33
6.3	Verification test methods for ratings (limiting values)	35
6.3.1	Surge (non-repetitive) forward current (I_{FSM})	35
6.3.2	Non-repetitive peak reverse voltage (V_{RSM})	36
6.3.3	Peak reverse power (repetitive or non-repetitive) (P_{RRM} , P_{RSM}) of avalanche rectifier diodes	38
6.3.4	Peak case non-rupture current (I_{RSCM})	41
7	Requirements for type tests, routine tests and endurance tests; marking of rectifier diodes	43
7.1	Type tests	43
7.2	Routine tests	43
7.3	Measuring and test methods	44
7.4	Marking of rectifier diodes	44
7.5	Endurance test	44
7.5.1	List of endurance tests	44
7.5.2	Conditions for endurance tests	44
7.5.3	Acceptance-defining characteristics and acceptance criteria for endurance tests	44
7.5.4	Acceptance-defining characteristics and acceptance criteria for reliability tests	45
	Figure 1 – Voltage waveform during forward recovery, specification method I	11
	Figure 2 – Voltage waveform during forward recovery, specification method II	11
	Figure 3 – Current waveform during reverse recovery	12
	Figure 4 – Diode turn-off, voltage, current and recovered charge	13
	Figure 5 – Reverse voltage ratings	14

Figure 6 – Forward current ratings	15
Figure 7 – Recovered charge Q_r , peak reverse recovery current I_{rrm} , reverse recovery time t_{rr} (idealized characteristics).....	18
Figure 8 – Circuit diagram for the measurement of forward voltage (d.c. method).....	20
Figure 9 – Circuit diagram for the measurement of forward voltage (oscilloscope method).....	21
Figure 10 – Graphic representation of on-state voltage versus current characteristic.....	21
Figure 11 – Circuit diagram for forward voltage measurement (pulse method).....	22
Figure 12 – Circuit diagram for breakdown voltage measurement.....	23
Figure 13 – Circuit diagram for reverse current measurement	24
Figure 14 – Circuit diagram for peak reverse current measurement.....	25
Figure 15 – Circuit diagram for recovered charge measurement, half sinusoidal wave method.....	26
Figure 16 – Current waveform through the diode D during recovered charge measurement, half sinusoidal wave method.....	26
Figure 17 – Circuit diagram for recovered charge measurement, rectangular wave method.....	28
Figure 18 – Current waveform through the diode D recovered charge measurement, rectangular wave method	28
Figure 19 – Circuit diagram for forward recovery time measurement	30
Figure 20 – Current waveform forward recovery time measurement	30
Figure 21 – Voltage waveform forward recovery time measurement	31
Figure 22 – Circuit diagram for total capacitive charge measurement	32
Figure 23 – Circuit diagram for thermal impedance measurement	33
Figure 24 – Calibration curve showing a typical variation of the forward voltage V_F at a low measuring current I_2 with the case temperature T_C (when heated from outside, i.e. $T_C = T_{vj}$)	34
Figure 25 – Circuit diagram for surge forward current measurement.....	35
Figure 26 – Circuit diagram for peak reverse voltage measurement.....	37
Figure 27 – Circuit to verify peak reverse power of avalanche rectifier diodes	38
Figure 28 – Triangular reverse current waveform.....	39
Figure 29 – Sinusoidal reverse current waveform.....	39
Figure 30 – Rectangular reverse current waveform.....	40
Figure 31 – Verification of P_{RSM} reverse power versus breakdown.....	41
Figure 32 – Circuit diagram for case non-rupture current measurement.....	42
Figure 33 – Waveform of the reverse current i_R through the diode under test.....	42
Table 1 – Minimum type and routine tests for rectifier diodes	44
Table 2 – Acceptance-defining characteristics for acceptance after endurance tests.....	45

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR DEVICES –**Part 2: Discrete devices – Rectifier diodes**

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International Standard IEC 60747-2 has been prepared by subcommittee 47E: Discrete semiconductor devices, of IEC technical committee 47: Semiconductor devices.

This third edition cancels and replaces the second edition published in 2000. This edition constitutes a technical revision.

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

- a) Schottky barrier diodes and its properties are added;
- b) Clauses 3, 4, 5 and 7 were amended with some deletions of information no longer in use or already included in other parts of the IEC 60747 series, and with some necessary additions;
- c) Clause 6 was moved and added to Clause 7 of this third edition;
- d) some parts of Clause 7 were moved and added to Clause 7 of this third edition;

e) Annex A was deleted.

This standard is to be used in conjunction with IEC 60747-1:2006 and Amendment 1: 2010.

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

FDIS	Report on voting
47E/531/FDIS	47E/537/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.

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

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

SEMICONDUCTOR DEVICES –

Part 2: Discrete devices – Rectifier diodes

1 Scope

This part of IEC 60747 provides standards for the following categories or sub-categories of rectifier diodes, including:

- line rectifier diodes;
- avalanche rectifier diodes;
- fast-switching rectifier diodes;
- Schottky barrier diodes.

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 60050-521, *International Electrotechnical Vocabulary – Part 521: Semiconductor devices and integrated circuits* (available at <http://www.electropedia.org>)

IEC 60747-1:2006, *Semiconductor devices – Part 1: General*
IEC 60747-1:2006/AMD1: 2010

IEC 60749-23, *Semiconductor devices – Mechanical and climatic test methods – Part 23: High temperature operating life*

IEC 60749-34, *Semiconductor devices – Mechanical and climatic test methods – Part 34: Power cycling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60747-1, in IEC 60050-521 (except for definitions 521-05-18, 521-05-25, 521-05-26) and the following apply.

3.1 General terms and definitions

3.1.1

forward direction

direction of the flow of continuous (direct) current in which a semiconductor diode has the lower resistance

3.1.2

reverse direction

direction of the flow of continuous (direct) current in which a semiconductor diode has the higher resistance