

Edition 1.0 2020-02

INTERNATIONAL STANDARD

AMENDMENT 21

The sheets contained in this amendment are to be inserted in IEC 60191-2

(standards.iteh.ai)
Mechanical standardization of semiconductor devices –

IEC 60191-2:1966/AMD21:2020

Part 2: Dimensions

https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6cd4b61374a360/iec-60191-2-1966-amd21-2020





THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2020 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office 3, rue de Varembé CH-1211 Geneva 20 Switzerland Tel.: +41 22 919 02 11 info@iec.ch

www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service

Centre: sales@iec.ch. <u>IEC 60191-2:1966/AMD21:2020</u>

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

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.

https://standards.iteh.ai/catalog/standards/sist/0c2ea219-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020



Edition 1.0 2020-02

INTERNATIONAL STANDARD

AMENDMENT 21

The sheets contained in this amendment are to be inserted in IEC 60191-2

(standards.iteh.ai)

Mechanical standardization of semiconductor devices -

Part 2: Dimensions <u>IEC 60191-2:1966/AMD21:2020</u>

https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 31.080.01 ISBN 978-2-8322-7865-9

Warning! Make sure that you obtained this publication from an authorized distributor.

iTeh STANDARD PREVIEW (standards.iteh.ai)

IEC 60191-2:1966/AMD21:2020 https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020

INSTRUCTIONS FOR THE INSERTION OF NEW PAGES IN IEC 60191-2

Replace the existing title page with the new title page.

Remove the existing page 60191 IEC I containing the preface and insert in its place the new page 60191 IEC I containing the preface to Amendment 21 (2020).

Chapter I:

Add the following new sheets:

60191 IEC I-190B-a 60191 IEC I-191B-a 60191 IEC I-190B/191B-b

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>IEC 60191-2:1966/AMD21:2020</u> https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020

iTeh STANDARD PREVIEW (standards.iteh.ai)

IEC 60191-2:1966/AMD21:2020 https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020



Edition 1.0 1966

INTERNATIONAL STANDARD

Mechanical standardization of semiconductor devices H. W. Part 2: Dimensions (standards.iteh.ai)

Includes Supplements and Amendments Includes Compléments et Amendements: A (1967), B (1969), C (1970), D (1971), E (1974), F (1976), G (1978), H (1978), J (1980), K (1981), L (1982), M (1983), N (1987), P (1988), Q (1990), R (1995), S (1995), T(1995), U(1997), V(1998), W(1999), X(1999), Y(2000), Z(2000), 1 (2001), 2(2001), 3(2001), 4(2001), 5(2002), 6(2002), 7(2002), 8(2003), 9(2003), 10(2004), 11(2004), 12(2006), 13(2006), 14(2006), 15(2006), 16(2007), 17(2008), 18(2011), 19(2012), 20(2018), 21(2020)



iTeh STANDARD PREVIEW (standards.iteh.ai)

IEC 60191-2:1966/AMD21:2020 https://standards.iteh.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c-d4b61374a360/iec-60191-2-1966-amd21-2020

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PUBLICATION 191-2

MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES -

Part 2: Dimensions

CONTENTS

FOREWORD

PREFACE

PHILOSOPHY OF MECHANICAL STAN-

RECOMMENDED VALUES FOR CERTAIN DIMENSIONS OF DRAWINGS OF SEMI-

TYPES OF SEMICONDUCTOR DEVICES

GENERALLY MOUNTED IN THECH STANDARD PREVIEW

PACKAGES OF CHAPTER I

(standards.iteh.ai)

BASE DRAWINGS Chapter II

IEC 60191-2:1966/AMD21:2020

CASE OUTLINE DRAWINGS://standards:ite/n.ai/catalog/standards/sist/0c2ea2f9-b0df-42be-8c6c----------Chapter III

d4b61374a360/iec-60191-2-1966-amd21-2020 GAUGE DRAWINGS.......Chapter IV

TABLES SHOWING ASSOCIATIONS BE-

OBSOLETE DRAWINGS

ADDITIONS TO THE LISTS OF NATIONAL CODES APPEARING ON THE STANDARD SHEETS OF **IEC PUBLICATION 191-2**

DELETIONS TO THE LISTS OF NATIONAL CODES APPEARING ON THE STANDARD SHEETS OF **IEC PUBLICATION 191-2**

> IEC Publication 191-2 Date: 1987

INTERNATIONAL ELECTROTECHNICAL COMMISSION

Amendment 21 (2020) to IEC 60191-2 (1966)

MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –

Part 2: Dimensions

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

PREFACE TO AMENDMENT 21 (2020)

This amendment has been prepared by subcommittee 47D: Semiconductor devices packaging, of IEC technical committee 47: Semiconductor devices.

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

CDV	Report on voting
47D/899/CDV	47D/907/RVC

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

Date: 2020 60191-2 IEC I Publication IEC 60191-2

		CHAPTER I -	- DEVICE OUTLINE DRAWINGS
List of drawings (continued)			
IEC code number	Code of country of origin	Page number and date	
116E01 116E02 116E03	SC-529-14BA SC-530-16CA SC-531-20AA	I-116E	1988
117E01 117E02 117E03 117E04 117E05	SC-530-16BA SC-531-20BA SC-532-24AA SC-533-28AA SC-533-28BA	I-117E	1988
118E01 118E02	SC-532-24BA SC-533-28CA	I-118E	1988
119E02 119E03	(USA)	I-119E	1990
120E 121E 122E 123E 129E	NT194 NT213 NT221 NT223	I-120E I-121E I-122E I-123E I-129E	1990 1994 1994 1997 1994
133E			2000
134E		I-134E	2000
135E		I-135E	2000
136E 137E 138E 139E	iΤ	I-136E I-137E C1138E I-139E	2000 2000 ANDARD PREVIEW
140E 141E 142E 143E 144E 147E 148E 149E 150E 151E 152E 153E	https://s	I-140E I-141E I-142E I-143E I-144E I-147E I-148E I-150E I-151E I-152E I-153E	1999 1998 261998 -2:1966/AMD21:2020 1999/ca1999/standards/sist/0c2ea2f9-b0df-42be-8c6c- a3(1999c-60191-2-1966-amd21-2020 2002 2002 2002 2002 2002 2002 20
154E 155E 156E 157E 158E 159E		I-154E I-155E I-156E I-157E I-158E I-159E	2001 2001 2004 2001 2002 2002
160E 161E 162E 163E 164E 165E 166 167E 168E 171E 175E 176E 177E 178E 179E 180E 181E 183E 187E		I-160E I-161E I-162E I-163E I-164E I-165E I-166E I-167E I-171E I-175E I-175E I-177E I-178E I-179E I-180E I-181E I-183E I-183E	2001 2001 2002 2001 2002 2003 2003 2004 2006 2005 2004 2007 2006 2006 2006 2008 2008 2011