

INTERNATIONAL STANDARD

IEC 60191-6-2

First edition
2001-12

Mechanical standardization of semiconductor devices –

Part 6-2:

General rules for the preparation of outline drawings of surface mounted semiconductor device packages –

Design guide for 1,50 mm, 1,27 mm and 1,00 mm pitch ball and column terminal packages

Normalisation mécanique des dispositifs à semiconducteurs –

Partie 6-2:

Règles générales pour la préparation des dessins d'encombrement des dispositifs à semiconducteurs pour montage en surface –

Guide de conception pour les boîtiers à broches en forme de billes et de colonnes, avec des pas de 1,50 mm, 1,27 mm et 1,00 mm



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –

**Part 6-2: General rules for the preparation of outline drawings
of surface mounted semiconductor device packages –
Design guide for 1,50 mm, 1,27 mm and 1,00 mm pitch ball
and column terminal packages**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60191-6-2 has been prepared by subcommittee SC 47D: Mechanical standardization of semiconductor devices, of IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47D/460//FDIS	47D/471/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 3.

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

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- withdrawn;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

The contents of the corrigendum of October 2002 have been included in this copy.

INTRODUCTION

This design guide is intended to standardize the requirements for all ball and column terminal packages in order to establish common rules for terminal shapes, irrespective of device and package types.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[IEC 60191-6-2:2001](https://standards.iteh.ai/catalog/standards/iec/1cf9243a-2f13-4dd2-964d-645552867f3b/iec-60191-6-2-2001)

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MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –

Part 6-2: General rules for the preparation of outline drawings of surface mounted semiconductor device packages – Design guide for 1,50 mm, 1,27 mm and 1,00 mm pitch ball and column terminal packages

1 Scope

This part of IEC 60191 covers the requirements for the preparation of drawings of integrated circuit outlines for the various ball terminal packages, e.g. ceramic ball grid array (C-BGA), plastic ball grid array (P-BGA), tape ball grid array (T-BGA) and others as well as column terminal packages, e.g. ceramic column grid array (C-CGA).

2 Normative references

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this part of IEC 60191. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60191 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60191 (all parts), *Mechanical standardization of semiconductor devices*

3 Definitions

[IEC 60191-6-2:2001](https://standards.iteh.ai/catalog/standards/iec/1c19243a-2f13-4dd2-964d-64555286713b/iec-60191-6-2-2001)

<https://standards.iteh.ai/catalog/standards/iec/1c19243a-2f13-4dd2-964d-64555286713b/iec-60191-6-2-2001>

For the purpose of this part of IEC 60191, the following definitions apply.

3.1

ball terminal packages

packages that have solder balls attached to a ceramic/laminate/tape substrate for mounting on a PCB surface, e.g. C-BGA, P-BGA and T-BGA

3.2

column terminal packages

packages that have solder columns attached to a ceramic/laminate/tape substrate for mounting on a PCB surface, e.g. C-CGA