

# INTERNATIONAL STANDARD

# IEC 60191-6-8

First edition  
2001-08

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## Mechanical standardization of semiconductor devices –

### Part 6-8:

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

### Design guide for glass sealed ceramic quad flatpack (G-QFP)

### *Normalisation mécanique des dispositifs à semiconducteurs*

#### *Partie 6-8:*

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

#### *Guide de conception pour les boîtiers plats quadrangulaires en céramique, scellement verre*



Reference number  
IEC 60191-6-8:2001(E)

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

PRICE CODE

**K**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –**

**Part 6-8: General rules for the preparation of outline drawings  
of surface mounted semiconductor device packages –  
Design guide for glass sealed ceramic quad flatpack (G-QFP)**

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 60191-6-8 has been prepared by subcommittee 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/438/FDIS	47D/456/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 2005. At this date, the publication will be

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- withdrawn;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

A bilingual version of this standard may be issued at a later date.

## MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –

### Part 6-8: General rules for the preparation of outline drawings of surface mounted semiconductor device packages – Design guide for glass sealed ceramic quad flatpack (G-QFP)

#### 1 Scope and object

This part of IEC 60191 provides the common outline drawings and dimensions for all types of structures and composed materials of glass sealed ceramic quad flatpack (hereinafter called G-QFP).

The object of this design guide is to standardize outlines and obtain interchangeability of G-QFP.

#### 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 60191-6-8:2001](https://standards.iteh.ai/catalog/standards/iec/1945548b-389c-41ee-abd5-ee57843a740d/iec-60191-6-8-2001)

<https://standards.iteh.ai/catalog/standards/iec/1945548b-389c-41ee-abd5-ee57843a740d/iec-60191-6-8-2001>

For the purpose of this part of IEC 60191, the following definition, as well as those given in the other parts of this standard, apply.

##### 3.1

##### **G-QFP**

glass sealed package with gull-wing formed terminals which are led out in four directions to mount on PCB surface

#### 4 Numbering of the pins

The index area is positioned at the upper left corner of the package body when it is viewed from the seating plane. The terminal that is closest to the index corner is numbered 1, and continued terminals that count in counter-clockwise directions are numbered 2, 3.

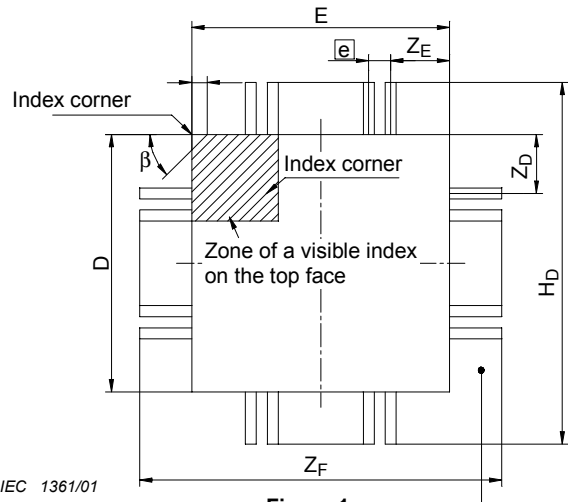


Figure 1a

IEC 1361/01

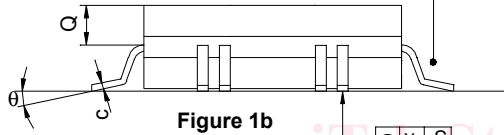
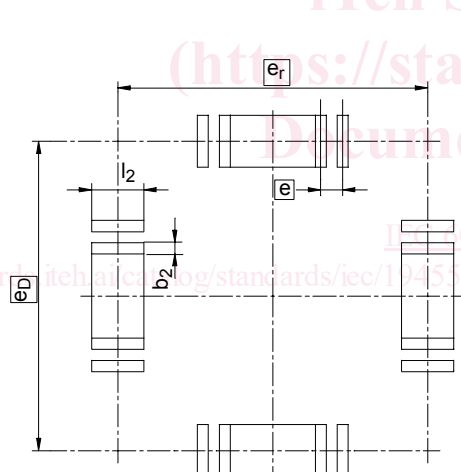


Figure 1b

IEC 1362/01



Terminal position area  
Figure 2

IEC 1363/01

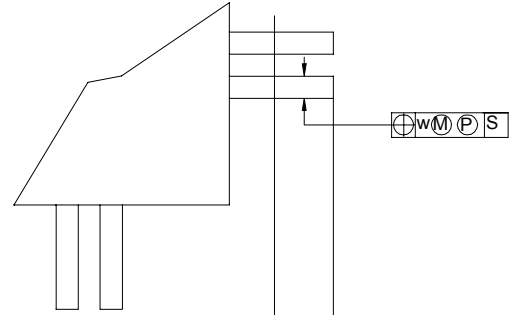


Figure 3

IEC 1364/01 6-8-2001

Seating plane  
P  
A<sub>3</sub>  
S

v(M) P S

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