

Semiconductor devices —

Part 2: Integrated circuits —

Section 2.1 General

UDC 621.3.049.774

Committees responsible for this British Standard

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- British Broadcasting Corporation
- British Telecommunications
- Business Equipment Trade Association
- Electronic Components Industry Federation
- Electronic Engineering Association
- GAMBICA (BEAMA Ltd)
- National Supervising Inspectorate
- Society of British Aerospace Companies Limited
- Telecommunication Engineering and Manufacturing Association (TEMA)

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National foreword

This British Standard constitutes Section 2.1 of the British Standard for semiconductor devices (BS 6493). It is identical with IEC Publication 60748-1:1984, *Semiconductor devices — Integrated circuits — Part 1: General* as amended by amendment 1:1991 and amendment 2:1993, published by the International Electrotechnical Commission (IEC).

This Section supersedes BS 3363:1980, BS 3363:Supplement No. 1:1981 and BS 3363:Supplement No. 2:1981 which are withdrawn.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards.

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

The preface to IEC 60748-1 is reproduced below for information (see clause 1 of Chapter II).

Preface

This standard has been prepared by IEC Technical Committee No. 47: Semiconductor Devices.

Publication 60748-1 constitutes the first part of a general standard on integrated circuits, Publication 60748, and presents the general clauses. The following Publications 60748-2, 60748-3, etc. present additional clauses, each part for a specific category of devices.

The meeting of Technical Committee No. 47, held in London in September 1982, approved the reorganization of Publications 60147 and 60148 into the present device-oriented arrangement. Since all the constituent parts had been previously approved by votes under the Six Months’ Rule or Two Months’ Procedure, a new vote was not deemed necessary.

Material concerning integrated circuits, found in Publications 60147 and 60148, is included in Publication 60747-1 and in Publications 60748 (see Note 1 below).

Material concerning mechanical and climatic test methods, found in Publications 60147-5 and 60147-5A, is included in Publication 60749.

This standard will be kept up to date by revising and extending the document as the work in Technical Committee No. 47 continues and takes into account advances in the field of integrated circuits.

NOTE 1 Though Publication 60147 has been written in terms of “semiconductor devices”, it referred only to discrete devices. Nevertheless, most of this material was equally applicable to integrated circuits. Therefore, most of its clauses have been incorporated into Publication 60747-1 without a check that each clause was really applicable to integrated circuits.

The reader should therefore ensure that a particular clause is applicable to integrated circuits.

NOTE 2 Publications 60747, 60748 and 60749 supersede and replace, as their different parts are published, Publications 60147 and 60148.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 31 and a back cover.

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Sideline in this document indicates the most recent changes by amendment.

Chapter I. Scope and presentation of IEC publications 60748

1 Scope

Publications 60748 should be read in conjunction with Publication 60747-1 and are intended to give standards for integrated circuits.

2 Presentation

Publications 60748 are made up of several parts which are issued as separate Publications 60748-1, 60748-2, etc. They are kept up to date by the issue of supplements, for example, Publication 60748-2A.

Chapter II. Purpose and presentation of publication 60748-1

1 General

Publication 60748-1 constitutes the general part of Publications 60748. Together with the relevant material of Publication 60747-1, it gives the general information on integrated circuits.

In this respect, all clauses of Publication 60747-1 are valid, provided that:

- they are not restricted expressively to discrete devices only, and
- they are applicable (see Note 1 to the preface)¹⁾.

2 Purpose

- To provide general information on scope and presentation of the Publications 60748 (see Chapter I).
- To provide information on the general principles or requirements applicable to Publications 60748-2, 60748-3, etc., which are the standards for the various categories or sub-categories of integrated circuits.

3 Presentation

The information on general principles or requirements is presented in Chapters III to VIII of the present publication.

NOTE Contents of Chapters III to VIII of the present publication:

- Chapter III: Purpose, presentation and requirements on the contents of Publications 60748-2, 60748-3, etc.
- Chapter IV: Terminology general.
 - Contains a number of basic terms and definitions for integrated circuits, in addition to those given in Publication 60747-1, Chapter IV.
- Chapter V: Letter symbols, general.
 - Provides a system of letter symbols to be used in the field of integrated circuits, in addition to those given in Publication 60747-1, Chapter V.
- Chapter VI: Essential ratings and characteristics, general.
 - Provides general clauses on electrical, thermal and mechanical requirement (they are different in comparison with corresponding clauses for discrete devices, given in Publication 60747-1, Chapter VI).
- Chapter VII: Measuring methods, general.
 - Explains the numbering system for the methods of measurement and the application matrices.
 - Provides a list of all measuring methods for integrated circuits.
- Chapter VIII: Acceptance and reliability of integrated circuits.
 - Provides general requirements and a prescription on the specific requirements that should be given for the various categories or sub-categories of integrated circuits.

¹⁾ See national foreword.

Chapter III. Purpose, presentation and requirements on the contents of publications 60748-2, 60748-3, etc.

Under consideration.

NOTE For the time being, Chapter III of Publication 60747-1 applies as far as possible.

