

Specification for

Letter symbols for semiconductor devices and integrated microcircuits —

Supplement 1

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- British Electrical and Allied Manufacturers' Association (BEAMA)
- Electronic Components Industry Federation*
- Electronic Engineering Association*
- Electricity Supply Industry in England and Wales
- Institution of Electronic and Radio Engineers
- Ministry of Defence*
- National Supervising Inspectorate*
- Post Office*
- Society of British Aerospace Companies Limited
- Telecommunications Engineering and Manufacturing Association (TEMA)*

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the Technical Committee entrusted with the preparation of this British Standard:

- British Broadcasting Corporation
- Engineering Equipment Users' Association

This British Standard, having been prepared under the direction of the Electronic Components Standards Committee, was published under the authority of the Executive Board and comes into effect on 31 December 1980

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The following BSI references relate to the work on this standard:
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National foreword

This first Supplement to BS 3363:1980 has been prepared under the direction of the Electronic Components Standards Committee. It is identical with IEC Publication 148A “First supplement to Publication 148 (1969) Letter symbols for semiconductor devices and integrated microcircuits” published in 1974 by the International Electrotechnical Commission (IEC). It adds new letter symbols to Chapter II, Bipolar Transistors, Chapter IX, Field Effect Transistors and the following new chapters: Chapter IV, Voltage Reference and Voltage Regulator Diodes, Chapter X, Digital Integrated Microcircuits, Chapter XI, Analogue Integrated Circuits and Chapter XII, Mixer Diodes.

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

Wherever the word “Recommendation” appears, referring to this standard, it should be read as “British Standard”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their 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 and ii, pages 1 to 13 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Chapter II. Letter symbols for bipolar transistors

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3.4.2 Small-signal parameters

Add the following symbol:

Collector-base capacitance for transistors with isolated device terminals and a separate screen lead	$C_{c,cb}$	
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3.6 Switching parameters

Replace Under consideration by the following symbols:

Pulse average time	t_w, t_{pav}	
Duty cycle	D, δ	

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Replace Under consideration by the following symbols:

Turn-on time	t_{on}	$t_d + t_r$
Turn-off time	t_{off}	$t_s + t_f$

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3.7 Sundry quantities

Replace Under consideration by the following symbols:

Amplification	A	
Current amplification	$A_I A_i$	
Voltage amplification	$A_V A_v$	

Power gain ^a	$G_P G_p$	
Insertion power gain	$G_I G_i$	
Transducer power gain	$G_T G_t$	
Available power gain	$G_A G_a$	

^a Delete the subdivisions planned for small signals, for large signals. Delete the box planned for maximum power gain.

Chapter IV. Letter symbols for voltage reference and voltage regulator diodes

Page 49

Replace Under consideration by the following text:

1 Letter symbols for currents, voltages and powers

1.1 Basic letters

See Sub-clause 4.1 of Chapter I of Publication 148.

1.2 Subscripts

The general rules of Sub-clause 4.2 of Chapter I apply. In addition to the list of recommended general subscripts given in Sub-clause 4.2.1 of Chapter I, the following special subscripts are recommended for the field of voltage reference and voltage regulator diodes:

Z, z = working

2 Letter symbols for electrical parameters

2.1 General

The definition and the general rules of Clause 5 of Chapter I apply.

2.2 Subscripts

In addition to the list of recommended general subscripts given in Sub-clause 5.3.1 of Chapter I, the following special subscripts are recommended for the field of voltage reference and voltage regulator diodes:

Z, z = working

3 List of letter symbols

The symbols contained in the following list are recommended for use in the field of voltage reference and voltage regulator diodes; they have been compiled in accordance with the general rules.

Name and designation	Letter symbol	Remarks
3.1 Voltages		
Working voltage	V_Z	
Continuous (direct) reverse voltage below the working voltage range	V_R	
Noise voltage within the working voltage range	V_{nz}	The symbol V_n is also acceptable if no misunderstanding is possible
3.2 Currents		
Continuous (direct) reverse current within the working voltage range	I_z	
Continuous (direct) reverse current at a voltage below the working voltage range	I_R	
3.3 Sundry quantities		
Differential resistance within the working voltage range	r_z	
Temperature coefficient of working voltage	α_{VZ}	Reserve symbol: S_Z

Chapter VI. Letter symbols for variable capacitance diodes

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Replace Under consideration by the following text:

1 Letter symbols for currents, voltages and powers

1.1 Basic letters

See Sub-clause 4.1 of Chapter I of Publication 148.

1.2 Subscripts

The general rules of Sub-clause 4.2 of Chapter I apply.

2 Letter symbols for electrical parameters

2.1 General

The definition and the general rules of Clause 5 of Chapter I apply.