SLOVENSKI STANDARD
SIST EN 190108:2002

01-september-2002

Family specification: TTL advanced Schottky digital integrated circuits - Series 54AS, 74AS

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Familienspezifikation: Digitale integrierte TTL advanced Schottky-Schaltungen - Serien 54AS, 74AS

Spécification de famille: Circuits intégrés logiques TTL Schottky avancée - Séries 54AS, 74AS

Ta slovenski standard je istoveten z: **EN 190108:1994**

ICS:

31.200	Integrirana vezja, mikroelektronika	Integrated circuits. Microelectronics

SIST EN 190108:2002 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 190108

May 1994

UDC

Supersedes CECC 90108 Issue 2:1987

Descriptors: Quality, electronic components, TTL advanced Schottky digital integrated circuits

English version

Family Specification: TTL Advanced Schottky Digital Integrated Circuits Series 54AS, 74AS

Spécification de famille:
Circuits intégrés logiques TTL
Schottky avancée
Séries 54AS, 74AS

Familienspezifikation:
Digitale integrierte TTL Advanced
Schottky-Schaltungen
Serien 54AS, 74AS

This European Standard was approved by the CENELEC Electronic Components Committee (CECC) on 8 May 1994. CENELEC members are bound to comply with CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the General Secretariat of the CECC or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CECC General Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The membership of the CECC is identical, with the exception of the national electrotechnical committees of Greece, Iceland and Luxembourg.

CECC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Ref. No. EN 190108:1994 E

Foreword

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby acceptable in all member countries without further testing.

This European Standard was prepared by CECC WG 9, "Integrated Circuits".

The text of the draft based on document CECC 90108 Issue 2:1987 (with A1) was submitted to the formal vote for conversion to a European Standard; together with the voting report, circulated as document CECC(Secretariat)3544 it was approved by CECC as EN 190108 on 8 May 1994.

The following dates were fixed:

- latest date of announcement of the EN at national level (doa) 1994-09-01
- latest date of publication of an identical national standard[a] (dop) 1995-03-01
- latest date of withdrawal of conflicting national standards[a] (dow) 1996-03-01

[a] National Standard (excluding National implementation of IECQ Specifications)

Förderverein für Elektrotechnische Normung (FEN) e. V.
Cenelec Electronic Components Committee

CECC

English version

Harmonized System of Quality Assessment for Electronic Components

FAMILY SPEZIFICATION:

TTL ADVANCED SCHOTTKY DIGITAL INTEGRATED CIRCUITS

Système Harmonisé d'Assurance de la Qualité des Composants Electroniques

SPECIFICATION DE FAMILLE:

CIRCUITS INTEGRES LOGIQUES TTL SCHOTTKY AVANCEE

Harmonisiertes Gütebestätigungssystem für Bauelemente der Elektronik

FAMILIEN-SPEZIFIKATION:

DIGITALE INTEGRIERTE TTL ADVANCED SCHOTTKY-SCHALTUNGEN

2 Edition Issue Ausgabe

CECC 90 108

1987

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This specification has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for TTL ADVANCED SCHOTTKY DIGITAL INTEGRATED CIRCUITS. It should be read in conjunction with the current regulation for the CECC System.

At the date of printing of this specification the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Preface

This Family Detail Specification was prepared by CECC WG9 "INTEGRATED CIRCUITS".

It is based, wherever possible, on the Publications of the International Electrotechnical Commission and in particular on IEC 747: Semiconductor devices: Discrete devices and integrated circuits, IEC 748: Semiconductor devices: Integrated circuits, IEC 749: Semiconductor devices: Mechanical and climatic test methods.

It contains general information on TTL Advanced Schottky digital integrated circuits and defines the common characteristics for this family of integrated circuits.

Together with the device type detail specification (DS) of a component usually prepared nationally, this family detail specification forms a complete detail specification.

The text of this second issue consists of the text of CECC 90108 Issue 1 (1985) amended in accordance with the ratified new material introduced by the following document.

Document	Date of Voting	Report on the Voting
CECC(Secretariat)1970	October 1986	CECC(Secretariat)2014

In accordance with the decision of the CECC Management Committee this specification is published initially in French and English. The German text will follow as soon as it has been prepared.

Effective date

This second Issue of CECC 90108 shall become effective for all new qualification approvals on 1 April 1987. Issue 1 will continue to remain effective to cover all past approvals.

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ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH :

CECC 90 000 : Generic specification for Monolithic integrated circuits (GS)
CECC 90 100 : Sectional specification for Digital monolithic integrated circuits (SS)

OUTLINE AND DIMENSIONS
(See DS for the specific type)

TERMINAL CONNECTIONS
(See DS for the specific type)

FAMILY DETAIL SPECIFICATION FOR
TTL ADVANCED SCHOTTKY
DIGITAL INTEGRATED CIRCUITS

Series 54 AS, 74 AS

NOTE : This family detail specification shall be completed by a DS in accordance with this specification covering one or more specific types of circuits.

TYPICAL CONSTRUCTION :

Silicon monolithic bipolar integrated circuits, cavity/non-cavity packages.

ASSESSMENT LEVELS : P, Y, L

CONTENTS

54 AS, 74 AS

Information about manufacturers who have components qualified to a detail specification written in accordance with this family detail specification is available in the current CECC 00 200 : Qualified Products List.

1 Limiting conditions of use for the family (Not for inspection purposes)

1.1 Maximum continuous supply voltage

V_{CC}: – 0,5 V
+ 7,0 V

1.2 Maximum input voltage

1.2.1 *Max. input voltage*

V_I: – 0,5 V
+ 7,0 V

1.2.2 *Max. input voltage between multiple emitter transistor inputs*

V_{II}: + 5,5 V

1.3 Minimum and maximum operating ambient temperatures

T_{amb} (°C)	54 AS	74 AS
min.	– 55	0
max.	+ 125	+ 70

1.4 Minimum and maximum storage temperatures

T_{stg}: – 65 °C min.
+ 150 °C max.
} (unless otherwise specified in the DS)

2 Recommended operating conditions and associated characteristics for the family (Not for inspection purposes)

(See also relevant DS)

These conditions apply to the total operating temperature range, unless otherwise prescribed.

2.1 Positive supply voltage

V_{CC}: 4,5 to 5,5 V

2.2 Most negative low level input voltage at an input current I_{IK} = – 18 mA

V_{IKB}: – 1,2 V

2.3 Minimum low level input voltage

V_{ILB}: 0 V

2.4 Maximum low level input voltage

V_{ILA}: 0,8 V

2.5 Minimum high level input voltage

V_{IHB}: 2 V

2.6 Maximum high level input voltage

V_{IHA}: 5,5 V
7,0 V (for inputs which are not I/O Ports)

2.7 Load factors

2.7.1 *Unit load current*

1) At low level voltage: 0,5 mA
2) At high level voltage: – 20 μA