

UTE

Spécification française harmonisée
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CECC 90 101-030

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Nombre total de pages : 16
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COMPOSANTS ELECTRONIQUES SOUS ASSURANCE
DE QUALITE CONFORMEMENT A :
*ELECTRONIC COMPONENTS OF ASSESSED QUALITY
IN ACCORDANCE WITH :*

GS : CECC 90 000 (NF C 86-020)

SS : CECC 90 100 (NF C 86-200)

FS : CECC 90 101 (NF C 86-213)

UTE C 86-213/B 50

Adoptée le 16 novembre 1987

BS9442 F013 to F015

BS9442 F058 to F060

BS9442 F100 to F106

Issue 2

October, 1977

DESSIN ET DIMENSIONS :
OUTLINE AND DIMENSIONS :

CEI 191-2 - Types 050 G 04 - 050 G 03
IEC 191-2 -

Référence française : F 105 - F 105A
French reference :

IDENTIFICATION DES CONNEXIONS
TERMINAL CONNECTIONS

Voir Tableau II
See Table II

SPECIFICATION PARTICULIERE POUR
MICROSTRUCTURES LOGIQUES SELON FS 90 101
DETAIL SPECIFICATION FOR DIGITAL INTEGRATED CIRCUITS IN ACCORDANCE WITH FS 90 101

54/64/74 92A

COMPTEUR DIVISEUR PAR 12
DIVIDE-BY-TWELVE COUNTER

TECHNOLOGIE DE FABRICATION :
TYPICAL CONSTRUCTION :

Circuit monolithique bipolaire au silicium, boîtiers
avec ou sans cavité.

*Silicon monolithic bipolar integrated circuit,
cavity/non-cavity packages.*

NIVEAUX D'ASSURANCE DE QUALITE : P, Y, L
ASSESSMENT LEVELS :

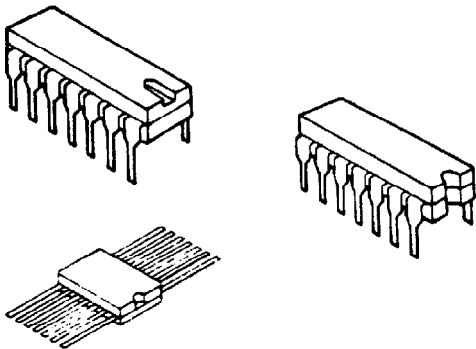
AMENDMENTS TO THE FOLLOWING CLAUSES

- § 2 - Add :
Most negative low level input voltage at an input current : $I_{IKB} = -12 \text{ mA}$, $V_{IKB} = -1,5 \text{ V}$
- § 3 To be replaced by CECC 90 000/3 § 2.5
- § 4 To be deleted
- § 5 To be replaced by CECC 90 000/3 § 2.6
- § 6 To be replaced by CECC 90 000/3 § 4.10.1
- § 7 All inspection level and AQL are those specified in 90 100/3.
Replace A3b by A4a, A3c by A4b, A4 by A5.
Add A8 of 90 100/3 (Assessment level P only).
Apply to A2 extreme temperature testing with A7a/A7b 90 000 inspection requirements.
For groups B, C, D, apply 90 100/3.
Sub-groups A6, A7 : not applicable.

Se reporter à la Liste des Produits Homologués CECC 00 200 en vigueur pour connaître les fabricants dont les composants conformes à cette spécification particulière sont homologués.
Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200 : Qualified Products List.

**Documents**

Document Sharing Hub

BRITISH STANDARDS INSTITUTION 2, PARK STREET, LONDON, W1A 2BS	BS9442 F013, 014, 015 BS9442 F058, 059, 060 BS9442 F100 to 106 Issue 2, October, 1977
ELECTRONIC COMPONENTS OF ASSESSED QUALITY: DETAIL SPECIFICATION	
Outlines not to scale  For details dimensions: 14 Lead Flat-Pack – see Appendix I 14 Lead Dual in-line – BS 3934 SO-87B	SILICON MONOLITHIC TTL DIVIDE-BY-TWELVE COUNTER CIRCUIT FULL ASSESSMENT LEVEL AND APPLICATION CATEGORIES S1, S2, S3 AND S4 TYPES 5492A 6492A 7492A See Clause 5 CERAMIC/GLASS HERMETICALLY SEALED ENCAPSULATION OR DUAL-IN-LINE PLASTIC ENCAPSULATION

1. Limiting conditions of use (not for inspection purposes)

Absolute values (non-simultaneous)		Units	
V_{CC}	Maximum continuous positive supply voltage	7.0	V
	Maximum continuous negative supply voltage	0.5	V
	Maximum continuous positive input voltage	5.5	V
	Maximum continuous negative input voltage	0.5	V
$-I_{IL}$	Maximum input current for each input	A input*	3.2 mA
		B input*	4.8 mA
		(Reset inputs)	1.6 mA
			1.0 mA
T_{amb}	Maximum reverse input current for each input		
		5492A	–55 to +125 °C
		6492A	–40 to + 85 °C
		7492A	0 to + 70 °C
T_{stg}	Storage temperature range		–65 to +150 °C
	Shock (0.5 ms duration)	14 700	m/s ²
	Vibration	196	m/s ²

Copies of this specification are available from manufacturers listed in the Qualified Products List Part 1, of PD 9002.

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2. Recommended conditions of use and associated characteristics (not for inspection purposes)

Over the full ambient operating temperature range unless otherwise stated.

			Min.	Max.	Units
V_{CC}	Positive supply voltage	5492A	4.5	5.5	V
		6492A & 7492A	4.75	5.25	V
V_{IH}	HIGH state input voltage	5492A	2.0	5.5	V
		6492A & 7492A	2.0	5.25	V
I_{CC}	Total supply current per package at V_{CC} Maximum value			39.0	mA
V_{OH}	HIGH state output voltage		2.4		V
V_{IL}	LOW state input voltage		0	0.8	V
V_{OL}	LOW state output voltage			0.4	V
$I_{IH} (1)$	HIGH state input current at, $V_{IN} = V_{IH}$ maximum value			1.0	mA
$I_{IH} (2)$	HIGH state input current at, $V_{IN} = 2.4V$	(A input) *		80.0	μA
		(B input) *		120.0	μA
		(Reset inputs) *		40.0	μA
$-I_{IL}$	LOW state input current at, $V_{IN} = 0.4V$	(A input) *		3.2	mA
		(B input) *		4.8	mA
		(Reset inputs) *		1.6	mA
$-I_{OH}$	HIGH state output current			800.0	μA
I_{OL}	LOW state output current			16.0	mA
$-I_{OS}$	Output short circuit current	5492A	20.0	57.0	mA
		6492A & 7492A	18.0	57.0	mA
t_{PHL}	HIGH to LOW state propagation time at 25°C (From input A to output D) *			50.0	ns
t_{PLH}	LOW to HIGH state propagation time at 25°C (From input A to output D) *			48.0	ns
f_{max}	Maximum frequency of operation (From input A to output A)		32.0		MHz
	(From input B to output B)		16.0		MHz
t_p (count)	Duration of input count pulse	(A input)	15.0		ns
		(B input)	30.0		ns
t_p (reset)	Duration of input reset pulse		15.0		ns
$t_{(set-up)}$	Reset inactive state set-up time		25.0		ns

*See Table II and Subgroup A4 for details

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Table I

Function tables
 Reset sequence

Reset inputs		Outputs			
R _{O(1)}	R _{O(2)}	A	B	C	D
H	H	L	L	L	L
H	L	COUNT COUNT COUNT			
L	H				
L	L				

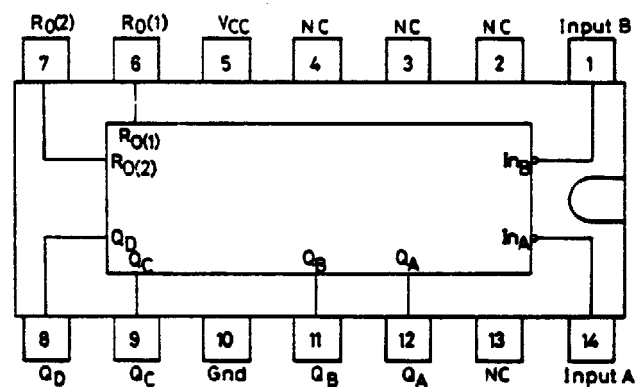
H = HIGH state
 L = LOW state

Count sequence (output A connected to input B)

Input count at input A	Outputs			
	A	B	C	D
0	L	L	L	L
1	H	L	L	L
2	L	H	L	L
3	H	H	L	L
4	L	L	H	L
5	H	L	H	L
6	L	L	L	H
7	H	L	L	H
8	L	H	L	H
9	H	H	L	H
10	L	L	H	H
11	H	L	H	H

Table II

Logic diagram and connections



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3. Marking

(1) Each integrated circuit shall bear the following markings

- Terminal identification.
- The manufacturer's type number.
- The factory identification code, or manufacturer's trade mark.
- The date code.

(2) Each package containing one or more of these circuits shall bear the markings b, c and d above and in addition.

- The BS detail specification number. Example BS 9442 F059

4. Related documents

BS 3934 'Dimensions of semiconductor devices'

BS 6001 'Sampling procedures and tables for inspection by attributes'

BS 9000 'General requirements for electronic components of assessed quality'

PD 9002 'Qualified products list for electronic components of assessed quality'

BS 9400 'Integrated electronic circuits of assessed quality: Generic data and methods of test'

5. Ordering information

Orders for these integrated circuits shall contain the following minimum information:

Manufacturer's integrated circuit type and package identification as detailed in PD 9002 to BS 9442 F . . . as defined below.

TYPE		APPLICATION CATEGORY				FULL ASSESSMENT LEVEL
		S1	S2	S3	S4	
CERAMIC Dual-in-line and Flat-Pack	5492A	F058	F059	F060	F100	F013
	6492A	*	F101	F102	F103	F014
	7492A	*	F104	F105	F106	F015
PLASTIC Dual-in-line	5492A	*	*	*	*	F013
	6492A	*	*	*	*	F104
	7492A	*	*	*	*	F015

* = Not available at present.