

UTE

Spécification française harmonisée
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CECC 90 101-037

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 Nombre total de pages : 15
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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 57

Adoptée le 16 novembre 1987

BS9440 F016, 017, 018

BS9440 F079, 080, 081

BS9440 F160 to F166

Issue 2

August, 1977

DESSIN ET DIMENSIONS :
OUTLINE AND DIMENSIONS :

CEI 191-2 - Types 050 G 09 - 050 G 009
IEC 191-2 -

Référence française : F 117 - F 117A
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

54/64/74 123

MONOSTABLE RECLENCABLE
AVEC REMISE A ZERO

DUAL MONOSTABLE MULTIVIBRATOR
(RETRIGGERABLE)

TECHNOLOGIE DE FABRICATION :
TYPICAL CONSTRUCTION :

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

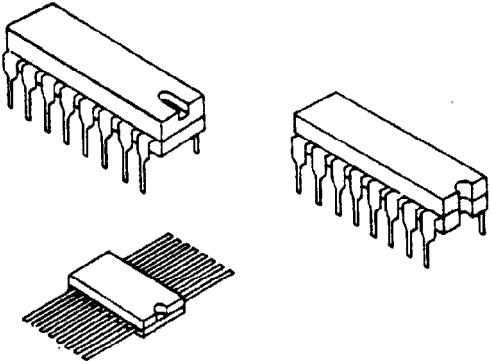
*Silicon monolithic bipolar integrated circuit,
cavity/non-cavity packages.*

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.

BRITISH STANDARDS INSTITUTION 2, PARK STREET, LONDON, W1A 2BS	BS9440 F016, 017, 018 BS9440 F079, 080, 081 BS9440 F160 to 166 ISSUE 2, AUGUST 1977
ELECTRONIC COMPONENTS OF ASSESSED QUALITY: DETAIL SPECIFICATION	
Outlines not to scale  For details dimensions: 16 Lead Flat-Pack — see Appendix I 16 Lead Dual in-line — BS 3934 SO-87C	SILICON MONOLITHIC TTL DIGITAL DUAL MONOSTABLE MULTIVIBRATOR (RETRIGGERABLE) FULL ASSESSMENT LEVEL AND APPLICATION CATEGORIES S1, S2, S3 AND S4 TYPES 54123 64123 74123 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	1.6	V
$-I_{IL}$	Maximum input current	3.2	mA
	Maximum reverse input current	1.0	mA
T_{amb}	Ambient operating temperature range	54123	-55 to +125 °C
		64123	-40 to + 85 °C
		74123	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	54123	4.5	5.5	V
V_{IH}	HIGH state input voltage	64123 & 74123	4.75	5.25	V
		54123	2.0	5.5	V
		64123 & 74123	2.0	5.25	V
I_{CC}	Total supply current per package at V_{CC} maximum value			66.0	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, $V_{IN} = 2.4V$	(Data inputs)		40.0	μA
		(Clear inputs)		80.0	μA
$-I_{IL}$	LOW state input current at, $V_{IN} = 0.4V$	(Data inputs)		1.6	mA
		(Clear inputs)		3.2	mA
I_{OL}	LOW state output current			16.0	mA
$-I_{OH}$	HIGH state output current			800.0	μA
$-I_{OS}$	Output short-circuit current	10.0	40.0		mA
t_{PHL}	HIGH to LOW state propagation time at 25°C*			40.0	ns
t_{PLH}	LOW to HIGH state propagation time at 25°C*			40.0	ns
t_P	Input pulse width			40.0	ns
R_{EXT}	External timing resistance	54123	5.0	25.0	K Ω
		64123 & 74123	5.0	50.0	K Ω
C_{EXT}	External timing capacitance		0		pF

*See Subgroup A4 for details.

Table I
 Function table.

INPUTS			OUTPUTS	
CLEAR	A	B	Q	$\bar{Q}$
L	X	X	L	H
X	H	X	L	H
X	X	L	L	H
H	L	↑	⌈	⌋
H	↓	H	⌋	⌈
↑	L	H	⌋	⌈

↑ = LOW to HIGH level transition

↓ = HIGH to LOW level transition

⌈ = one HIGH level pulse

⌋ = one LOW level pulse

X = Logic state irrelevant

H = HIGH state

L = LOW state

Timing Relationship

The output pulse is a function of the external capacitor and resistor. When $C_{EXT} > 1000 \text{ pF}$ the output pulse with $t_{P(OUT)}$ is defined as follows:

$$t_{P(OUT)} = 0.28 \times R_T \times C_{EXT} (1 + 0.7) \frac{R_T}{R_T}$$

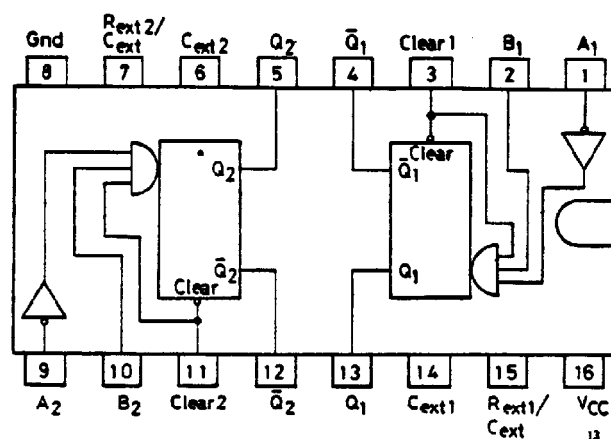
R_T = internal or external timing Resistor in $K\Omega$

C_{EXT} is in pF

$t_{P(OUT)}$ is in ns

Table II

Logic diagram and connections.



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3. Marking

(1) Each integrated circuit shall bear the following markings

- a. Terminal identification.
- b. The manufacturer's type number.
- c. The factory identification code, or manufacturer's trade mark.
- d. 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.

- e. The BS detail specification number. Example BS 9440 F080.

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 9440 F... as defined below.

TYPE		APPLICATION CATEGORY				FULL ASSESSMENT LEVEL
		S1	S2	S3	S4	
CERAMIC Dual-in-line and Flat-Pack	54123	F079	F080	F081	F160	F016
	64123	*	F161	F162	F163	F017
	74123	*	F164	F165	F166	F018
PLASTIC Dual-in-line	54123	*	*	*	*	F016
	64123	*	*	*	*	F017
	74123	*	*	*	*	F018

* = Not available at present.