

UTE

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CECC 90 101-045

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Page 0

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 65

Adoptée le 16 novembre 1987

BS9405 F064 to F066

BS9405 F100 to F102

BS9405 F204 to F210

Issue 1

October, 1978

DESSIN ET DIMENSIONS :
OUTLINE AND DIMENSIONS :

CEI 191-2 - Types 050 G 09 - 050 G 08
IEC 191-2 - Types 050 G 09 - 050 G 08

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*

54/64/74 155

DECODEUR/DEMULTIPLEXEUR
D'ADRESSES

**DUAL 2-TO-4 LINE DECODER OR
1-TO-4 LINE DEMULTIPLEXER**

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.

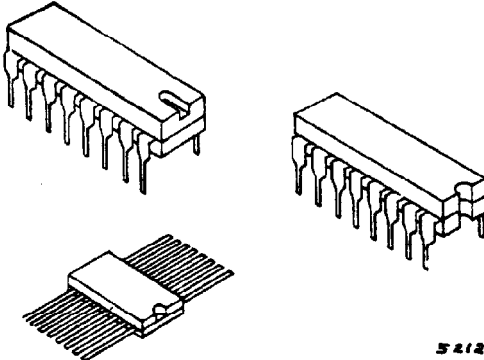
Sub-groups A6, A7 : not applicable.

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	BS 9405 F064 to 066 BS 9405 F100 to 102 BS 9405 F204 to 210 ISSUE 1, OCTOBER 1978
ELECTRONIC COMPONENTS OF ASSESSED QUALITY: DETAIL SPECIFICATION	
Outlines not to scale  For detail dimensions: 16 Lead Flat-Pack – see Appendix I 16 Lead Dual in-line – see BS 3934 SO-87C	SILICON MONOLITHIC TTL DUAL 2-to-4 LINE DECODER OR 1-to-4 LINE DEMULTIPLEXER FULL ASSESSMENT LEVEL AND APPLICATION CATEGORIES S1, S2, S3 and S4 TYPES: 54155 64155 74155 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	1.6	mA
	Maximum reverse input current	1.0	mA
T_{stg}	Storage temperature range	-65 to +150	°C
T_{amb}	Ambient operating temperature range	54155 -55 to +125	°C
		64155 -40 to +85	°C
		74155 0 to +70	°C
	Shock (duration 0.5 ms)	14 700	m/s ²
	Vibration	196	m/s ²

BS 9405 F064 to 066

BS 9405 F100 to 102

BS 9405 F204 to 210

Issue 1, October 1978

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	54155	4.5	5.5	V
		64155 & 74155	4.75	5.25	V
V_{IH}	HIGH state input voltage	54155	2.0	5.5	V
		64155 & 74155	2.0	5.25	V
I_{CC}	Total supply current per package at V_{CC} maximum value	54155		35.0	mA
		64155 & 74155		40.0	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, $V_{IN} = V_{IH}$ maximum value			1.0	mA
$I_{IH(2)}$	HIGH state input current, $V_{IN} = 2.4V$			40.0	μA
$-I_{IL}$	LOW state input current, $V_{IN} = 0.4V$			1.6	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	54155	20.0	55.0	mA
		64155 & 74155	18.0	57.0	mA
t_{PHL}	HIGH to LOW state propagation time at 25°C*			32.0	ns
t_{PLH}	LOW to HIGH state propagation time at 25°C*			32.0	ns

*See subgroup A4 for details.

Table I

Function tables

2-to-4 Line decoder or 1-to-8 Line demultiplexer

INPUTS				OUTPUTS			
SELECT A	B	DATA 1C	STROBE 1G	1Y0	1Y1	1Y2	1Y3
X	X	X	H	H	H	H	H
L	L	H	L	L	H	H	H
H	L	H	L	H	L	H	H
L	H	H	L	H	H	L	H
H	H	H	L	H	H	H	L
X	X	L	X	H	H	H	H

INPUTS				OUTPUTS			
SELECT A	B	DATA 2C	STROBE 2G	2Y0	2Y1	2Y2	2Y3
X	X	X	H	H	H	H	H
L	L	L	L	L	H	H	H
H	L	L	L	H	L	H	H
L	H	L	L	H	H	L	H
H	H	L	L	H	H	H	L
X	X	H	X	H	H	H	H

X = Logic state irrelevant.

BS 9405 F064 to 066
BS 9405 F100 to 102
BS 9405 F204 to 210

Issue 1, October 1978

Table I (continued)

3-to-8 Line decoder or 1-to-8 Line demultiplexer

INPUTS				OUTPUTS							
A	SELECT B	C*	STROBE or DATA G†	2Y0	2Y1	2Y2	2Y3	1Y0	1Y1	1Y2	1Y3
X	X	X	H	H	H	H	H	H	H	H	H
L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	H	L	H	H	H	H	H	H
L	H	L	L	H	H	L	H	H	H	H	H
H	H	L	L	H	H	H	L	H	H	H	H
L	L	H	L	H	H	H	H	L	H	H	H
L	L	H	L	H	H	H	H	H	L	H	H
L	H	H	L	H	H	H	H	H	H	L	H
H	H	H	L	H	H	H	H	H	H	H	L

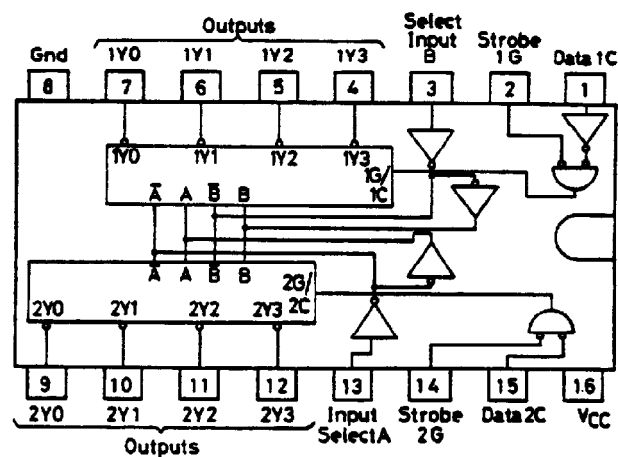
X = Logic state irrelevant

C*, 1C and 2C inputs are connected together

G†, 1G and 2G inputs are connected together

Table II

Logic diagram and connections



BS 9405 F064 to 066
BS 9405 F100 to 102
BS 9405 F204 to 210
Issue 1. October 1978

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.
 - 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 e.g., BS 9405 F064

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 9405 F... as defined below.

TYPE		APPLICATION CATEGORY				FULL ASSESSMENT LEVEL
		S1	S2	S3	S4	
CERAMIC Dual in-line and Flat-Pack	54155	F100	F101	F102	F204	F064
	64155	★	F205	F206	F207	F065
	74155	★	F208	F209	F210	F066
PLASTIC Dual in-line	54155	★	★	★	★	F064
	64155	★	★	★	★	F065
	74155	★	★	★	★	F066

★ = Not available at the present time.