

Qualification requirements have been removed for device type 02

INCH-POUND

MIL-M-38510/75B
AMENDMENT 2
19 November 1992
SUPERSEDING
AMENDMENT 1
20 October 1987

MILITARY SPECIFICATION
MICROCIRCUITS, DIGITAL, BIPOLAR, SCHOTTKY TTL,
EXCLUSIVE-OR GATES, MONOLITHIC SILICON

This amendment forms a part of MIL-M-38510/75B, dated 27 November 1985, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2.3, add the following new case outlines:

- "2 C-2 (20-terminal, .350" x .350"), square chip carrier package
- X C-2A (20-terminal, .350" x .350"), square chip carrier package"

1.3, thermal resistance, junction-to-case (θ_{JC}): Delete and substitute the following:

"Thermal resistance, junction-to-case (θ_{JC}):
Cases A, B, C, D, E, F, 2, and X - - - - - (See MIL-M-38510, appendix C)

PAGE 5

3.6, delete second sentence in its entirety.

TABLE II, group A test requirements, class B devices: Add "10, 11".

TABLE II, additional electrical subgroups for group C periodic inspections: Delete in its entirety.

PAGE 6

* 4.2a(1), delete and substitute as follows:

"(1) Test condition D or E, using the circuit shown on figure 3, or equivalent. Test condition A and the applicable test circuit shall be allowed with the approval of the qualifying activity."

* 4.4.3b, delete in its entirety.

The attached insertable replacement pages listed below are replacements for stipulated pages. When the new pages have been entered in the document, insert the amendment as the cover sheet to the specification.

<u>Replacement page</u>	<u>Page replaced</u>
7	7
8	Reprinted without change

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* 4.4.3c(1), delete and substitute as follows:

"(1) Test condition D or E, using the circuit shown on figure 3, or equivalent. Test condition A and the applicable test circuit shall be allowed with the approval of the qualifying activity."

PAGE 9

FIGURE 3, note 3: Delete "5.5 V" and substitute "5.0 V". Make this same change on page 10.

PAGE 13

TABLE III, terminal designations, delete and substitute as follows:

Cases														
A,B,C,D	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2,X <u>2/</u>	2	3	4	6	8	9	10	12	13	14	16	18	19	20
	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	V _{CC}

Make these same changes on pages 14 and 15.

PAGE 15

Following footnote 1/, add footnote 2/ as follows:

"2/ Cases 2 and X pins not designated are NC."

NOTE: The margins of this amendment are marked with asterisks to indicate where changes from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Custodians:

Army - ER
 Navy - EC
 Air Force - 17

Review activities:

Army - AR, MI
 Navy - OS, SH, TD
 Air Force - 19, 85, 99
 DLA - ES

User activities:

Army - SM
 Navy - AS, CG, MC

Preparing activity:

Air Force - 17

Agent:

DLA - ES

(Project 5962-1308)

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Pin number			Pin name		
Cases			Device type 01		Device type 02 <u>1/</u>
2 and X	E and F	A, B, C, and D	2 and X	A, B, C, and D	E and F
1	1	1	NC	1A	1A
2	2	2	1A	1B	1B
3	3	3	1B	1Y	1Y
4	4	4	1Y	2A	1C, 2C
5	5	5	NC	2B	2A
6	6	6	2A	2Y	2B
7	7	7	NC	GND	2Y
8	8	8	2B	3Y	GND
9	9	9	2Y	3A	3Y
10	10	10	GND	3B	3A
11	11	11	NC	4Y	3B
12	12	12	3Y	4A	3C, 4C
13	13	13	3A	4B	4Y
14	14	14	3B	V _{CC}	4A
15	15		NC		4B
16	16		4Y		V _{CC}
17			NC		
18			4A		
19			4B		
20			V _{CC}		

1/ Qualification requirements removed for this device type.

FIGURE 1. Terminal connections.

Supersedes page 7 of MIL-M-38510/75B
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Device type 01

Inputs		Output
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	L

$$Y = \bar{A}B + A\bar{B}$$

Device type 02 ^{1/}

Inputs			Output
A	B	C	Y
L	L	L	L
L	H	L	H
H	L	L	H
H	H	L	L
L	L	H	H
L	H	H	L
H	L	H	L
H	H	H	H

Positive Logic: $Y = \bar{A}\bar{B}C + \bar{A}B\bar{C} + A\bar{B}\bar{C} + ABC$

^{1/} Qualification requirements removed for device type 02.

FIGURE 2. Truth tables and logic equations.

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