

INCH-POUND

MIL-M-38510/1E  
AMENDMENT 3  
3 December 1992  
SUPERSEDING  
AMENDMENT 2  
17 July 1985

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, BIPOLAR, TTL,  
NAND GATES, MONOLITHIC SILICON

This amendment forms a part of MIL-M-38510/1E,  
dated 1 June 1982, and is approved for use by all  
Departments and Agencies of the Department of Defense.

PAGE 1

Heading: Under SUPERSEDING, delete "MIL-M-0038510/10(USAF)" and substitute "MIL-M-0038510/1D(USAF)".

\* Title: Delete and substitute as printed above.

1.1, second sentence, delete and substitute: "Two product assurance classes and a choice of case outlines and lead finishes are provided for each type and are reflected in the complete part number."

1.3, thermal resistance, delete and substitute:

"Thermal resistance, junction-to-case ( $\theta_{JC}$ ):  
Cases (any case in M38510) - - - - - (See MIL-M-38510, appendix C)  
Cases (all LCC's) - - - - - 0.08°C/W 2/"

1.3, after junction temperature ( $T_J$ ): Add "3/".

At bottom of page, add two footnotes as follows:

2/ When a thermal resistance value is included in MIL-M-38510, appendix C, it shall supersede the value stated herein.

3/ Maximum junction temperature shall not be exceeded except for allowable short duration burn-in screening conditions in accordance with method 5004 of MIL-STD-883."

PAGE 3

TABLE I, conditions heading: Add " $-55^{\circ}\text{C} \leq T_C \leq +125^{\circ}\text{C}$ ".

PAGE 4

TABLE II: Delete class C devices column in its entirety.

4.2c, delete and substitute: "c. The percent defective allowable (PDA) shall be as specified in MIL-M-38510."

\* 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."

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\* 4.4.3c(1), delete and substitute as follows: (alter change made by previous amendment)

"(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."

6.1: Delete in its entirety.

PAGE 12

TABLE III, heading: Delete "(pins not designated are open)" and substitute "(pins not designated may be high  $\geq$  2.0 V, low  $\leq$  0.8 V or open)". Make this same change to pages 13 through 29.

PAGE 23

TABLE III, test numbers 39 through 46, 3B column: Delete "GND" and substitute "5.5 V".

PAGE 27

TABLE III, test numbers 37 and 38, GND column: Add "GND". (2 places)

PAGE 30

6.4, GND: Delete "Electrical ground (common terminal)" and substitute "Ground zero voltage potential".

The margins of this amendment are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) 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

Preparing activity:  
Air Force - 17

Agent:  
DLA - ES

Review activities:

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

(Project 5962-1322)

User activities:

Army - SM  
Navy - AS, CG, MC