

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, BIPOLAR, LOW-POWER SCHOTTKY, TTL,
NAND GATES, MONOLITHIC SILICON

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the detail requirements for monolithic silicon, low power Schottky, TTL, positive NAND logic gate microcircuits. 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.

1.2 Part number. The part number shall be in accordance with MIL-M-38510.

1.2.1 Device types. The device types shall be as follows:

<u>Device type</u>	<u>Circuit</u>
01	Quadruple, 2-input positive NAND gate
02	Quadruple, 2-input positive NAND gate (open collector output)
03	Hex, 1-input inverter gate
04	Hex, 1-input inverter gate (open collector output)
05	Triple, 3-input positive NAND gate
06	Triple, 3-input positive NAND gate (open collector output)
07	Dual, 4-input positive NAND gate.
08	Dual, 4-input positive NAND gate (open collector output)
09	Single, 8-input positive NAND gate

1.2.2 Device class. The device class shall be the product assurance level as defined in MIL-M-38510.

1.2.3 Case outlines. The case outlines shall be designated as follows:

<u>Letter</u>	<u>Case outline (see MIL-M-38510, appendix C)</u>
A	F-1 (14-lead, 1/4" x 1/4"), flat package
B	F-3 (14-lead, 3/16" x 1/4"), flat package
C	D-1 (14-lead, 1/4" x 3/4"), dual-in-line package
D	F-2 (14-lead, 1/4" x 3/8"), flat package
2	C-2 (20-terminal, .350" x .350"), square chip carrier package

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Rome Air Development Center, (RBE-2) Griffiss AFB, NY 13441, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

1.3 Absolute maximum ratings.

Supply voltage range - - - - -	-0.5 V dc to +7.0 V dc
Input voltage range - - - - -	-1.5 V dc at -18 mA to +5.5 V dc
Storage temperature range - - - - -	-65°C to +150°C
Maximum power dissipation per gate, (P _D) <u>1/</u>	6.1 mW dc
Lead temperature (soldering, 10 seconds) -	+300°C
Thermal resistance, junction-to-case (θ _{JC}):	
Cases A, B, C, and D - - - - -	(See MIL-M-38510, appendix C)
Case 2 - - - - -	+80°C/W <u>2/</u>
Junction temperature (T _J) <u>3/</u> - - - - -	+175°C

1.4 Recommended operating conditions.

Supply voltage (V _{CC}) - - - - -	4.5 V dc minimum to 5.5 V dc maximum
Minimum high level input voltage (V _{IH}) - -	+2.0 V dc
Maximum low level input voltage (V _{IL}) - -	+0.7 V dc
Case operating temperature range (T _C) - - -	-55°C to +125°C

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specification and standard. The following specification and standard form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Departments of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATION

MILITARY

MIL-M-38510 - Microcircuits, General Specification for.

STANDARD

MILITARY

MIL-STD-883 - Test Methods and Procedures for Microelectronics.

(Copies of the specification and standard required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Detail specification. The individual item requirements shall be in accordance with MIL-M-38510, and as specified herein.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-M-38510 and herein.

1/ Must withstand the added P_D due to short circuit test (e.g., I_{OS}).

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 5004 of MIL-STD-883.

3.2.1 Logic diagrams and terminal connections. The logic diagrams and terminal connections shall be as specified on figure 1.

3.2.2 Truth tables. The truth tables shall be as specified on figure 2.

3.2.3. Schematic circuits. Schematic circuits shall be submitted to the preparing activity prior to inclusion of a manufacturer's device in this specification and shall be submitted to the qualifying activity and agent activity (DESC-ECS) as a prerequisite for qualification. All qualified manufacturers' schematics shall be maintained by the agent activity and will be available upon request.

3.2.4 Case outlines. The case outlines shall be as specified in 1.2.3.

3.3 Lead material and finish. Lead material and finish shall be in accordance with MIL-M-38510 (see 6.4).

3.4 Electrical performance characteristics. Unless otherwise specified, the electrical performance characteristics are as specified in table I and apply over the full recommended case operating temperature range.

3.4.1 Post-irradiation performance characteristics. The electrical performance characteristics of radiation hardness assured devices following exposure to the designated radiation levels are as specified in table III, subgroups 1 and 9 and apply at an ambient temperature of +25°C.

3.5 Electrical test requirements. The electrical test requirements for each device class shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table III.

3.6 Marking. Marking shall be in accordance with MIL-M-38510.

3.7 Microcircuit group assignment. The devices covered by this specification shall be in microcircuit group number 8 (see MIL-M-38510, appendix E).

4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-M-38510 and methods 5005 and 5007, as applicable, of MIL-STD-883, except as modified herein.

4.2 Screening. Screening shall be in accordance with method 5004 of MIL-STD-883, and shall be conducted on all devices prior to qualification and quality conformance inspection. The following additional criteria shall apply:

a. Burn-in test (method 1015 of MIL-STD-883).

(1) Test condition D, E, or F, using the circuit shown on figure 3 or equivalent.

(2) $T_A = +125^\circ\text{C}$ minimum.

b. Interim and final electrical test parameters shall be as specified in table II except interim electrical parameters test prior to burn-in is optional at the discretion of the manufacturer.

c. The percent defective allowable (PDA) shall be as specified in MIL-M-38510.

4.3 Qualification inspection. Qualification inspection shall be in accordance with MIL-M-38510. Inspections to be performed shall be those specified in method 5005 of MIL-STD-883 and herein for groups A, B, C, D, and E inspections (see 4.4.1 through 4.4.4).

4.4 Quality conformance inspection. Quality conformance inspection shall be in accordance with MIL-M-38510. Inspections to be performed shall be those specified in method 5005 of MIL-STD-883 and herein for groups A, B, C, D, and E inspections (see 4.4.1 through 4.4.4).

TABLE I. Electrical characteristics.

Test	Symbol	Conditions $-55^{\circ}\text{C} \leq T_C \leq +125^{\circ}\text{C}$	Device type	Limits		Unit
				Min	Max	
High-level output voltage	V_{OH}	$V_{CC} = 4.5 \text{ V}; V_{IL} = 0.7 \text{ V};$ $I_{OH} = -400 \mu\text{A}$	01,03,05, 07,09	2.5		V
Low-level output voltage	V_{OL}	$V_{CC} = 4.5 \text{ V}; V_{IH} = 2.0 \text{ V};$ $I_{OL} = 4 \text{ mA}$	A11		0.4	V
Input clamp voltage	V_{IC}	$V_{CC} = 4.5 \text{ V}; I_{IN} = -18 \text{ mA};$ $T_C = +25^{\circ}\text{C}$	A11		-1.5	V
Collector cut- off current	I_{CEX}	$V_{CC} = 4.5 \text{ V}; V_{IL} = 0.7 \text{ V};$ $V_{OH} = 5.5 \text{ V}$	02,04,06 08		100	μA
High-level input current	I_{IH1}	$V_{CC} = 5.5 \text{ V}; V_{IH} = 2.7 \text{ V}$	A11		20	μA
	I_{IH2}	$V_{CC} = 5.5 \text{ V}; V_{IH} = 5.5 \text{ V}$	A11		100	μA
Low-level input current	I_{IL}	$V_{CC} = 5.5 \text{ V}; V_{IL} = 0.4 \text{ V}$	01,02,03, 04,05,06,09	-30	-400	μA
			07	-30	-380	
			08	-30	-440	
Short-circuit output current	I_{OS}	$V_{CC} = 5.5 \text{ V}$ 1/	01,03,05, 07,09	-15	-100	mA
High-level supply current	I_{CCH}	$V_{CC} = 5.5 \text{ V}; V_{IN} = 0 \text{ V}$	01,02		1.6	mA
			03,04		2.4	
			05		1.2	
			06		1.4	
			07,08 09		0.8 0.5	
Low-level supply current	I_{CCL}	$V_{CC} = 5.5 \text{ V}; V_{IN} = 5.5 \text{ V}$	01,02		4.4	mA
			03,04		6.6	
			05,06		3.3	
			07,08		2.2	
			09		1.1	
Propagation delay time, high- to-low level	t_{PHL}	$C_L = 50 \text{ pF}; R_L = 2 \text{ k}\Omega$ $V_{CC} = 5.0 \text{ V}$	01,03,05,07, 02,04,06,08,	2	24	ns
			09	2	38	
Propagation delay time, low- to-high level	t_{PLH}	$C_L = 50 \text{ pF}; R_L = 2 \text{ k}\Omega$ $V_{CC} = 5.0 \text{ V}$	01,03,05,07, 02,04,06,08,	2	20	ns
			09	2	60	

1/ Not more than one output should be shorted at a time.

TABLE II. Electrical test requirements.

MIL-STD-883 test requirements	Subgroups (see table III)	
	Class S devices	Class B devices
Interim electrical parameters (method 5004)	1	1
Final electrical test parameters (method 5004)	1*, 2, 3, 9, 10, 11	1*, 2, 3, 9
Group A test requirements (method 5005)	1, 2, 3, 9, 10, 11	1, 2, 3, 9
Group B test requirements (method 5005) subgroup 5	1, 2, 3, 9, 10, 11	N/A
Group C end-point electrical parameters (method 5005)	N/A	1,2,3
Additional electrical subgroups for group C periodic inspections	N/A	10,11
Group D end-point electrical parameters (method 5005)	1,2,3	1,2,3
Group E end-point electrical parameters (method 5005)	1,9	1,9

*PDA applies to subgroup 1 (see 4.2.c.).

4.4.1 Group A inspection. Group A inspection shall be in accordance with table I of method 5005 of MIL-STD-883 and as follows:

- a. Tests shall be as specified in table II herein.
- b. Subgroups 4, 5, 6, 7, and 8 shall be omitted.

4.4.2 Group B inspection. Group B inspection shall be in accordance with table II of method 5005 of MIL-STD-883. Electrical parameters shall be as specified in table II herein.

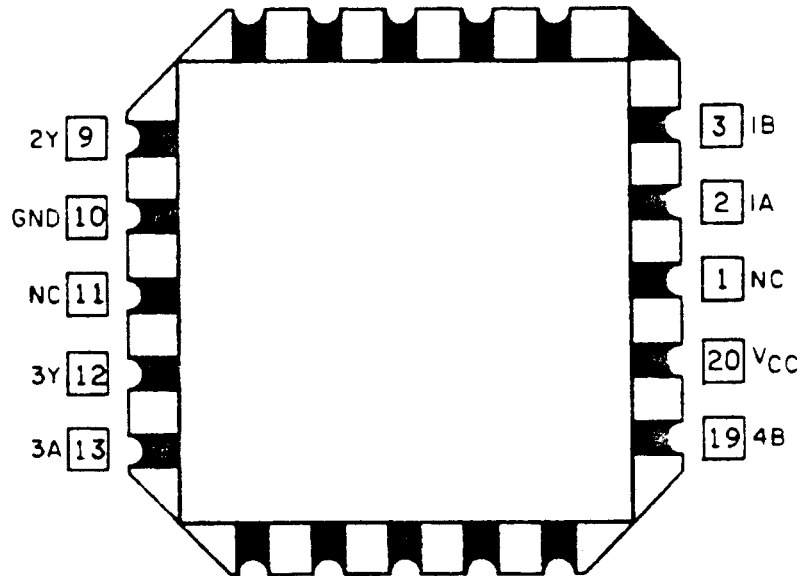
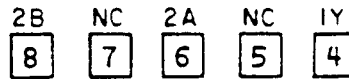
4.4.3 Group C inspection. Group C inspection shall be in accordance with table III of method 5005 of MIL-STD-883 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Subgroups 3 and 4 shall be added to the group C inspection requirements for class B devices and shall consist of the tests, conditions and limits specified for subgroups 10 and 11 of group A.
- c. Steady-state life test (method 1005 of MIL-STD-883) conditions:
 - (1) Test condition D, E, or F, using the circuit shown on figure 3 or equivalent.
 - (2) $T_A = +125^\circ\text{C}$ minimum.
 - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.4.4 Group D inspection. Group D inspection shall be in accordance with table IV of method 5005 of MIL-STD-883. End-point electrical parameters shall be as specified in table II herein.

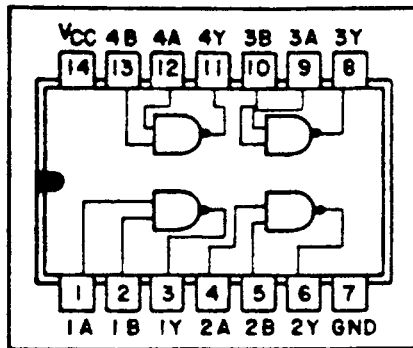
Device types 01 and 02

Case 2



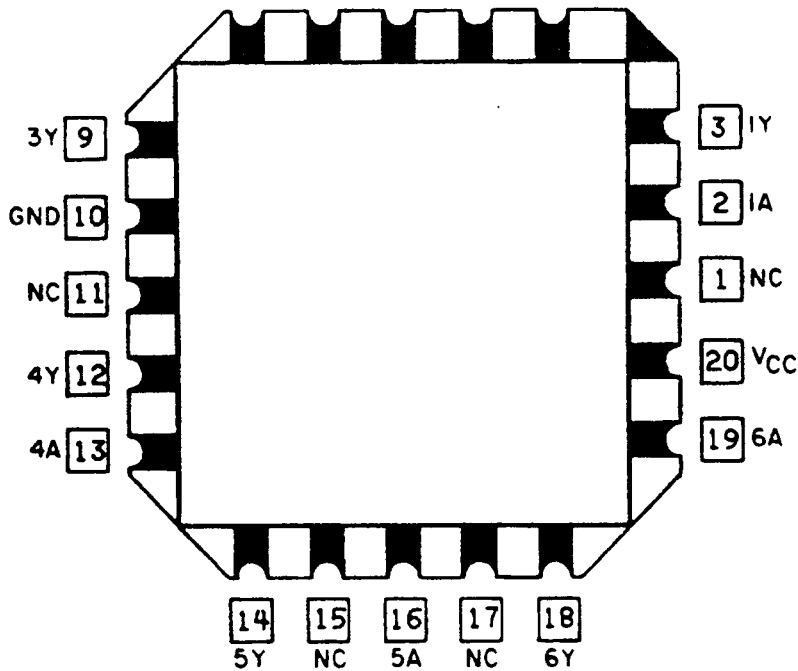
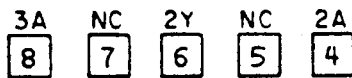
Device types 01 and 02

Cases A, B, C and D



Device types 03 and 04

Case 2



Device types 03 and 04

Cases A, B, C and D

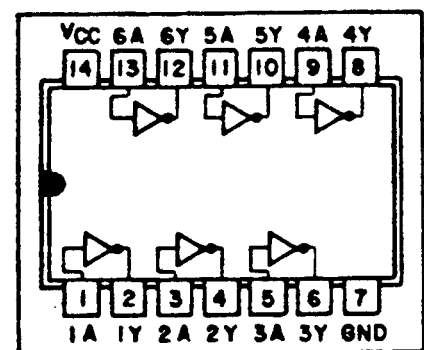


FIGURE 1. Logic diagrams and terminal connections (top view).

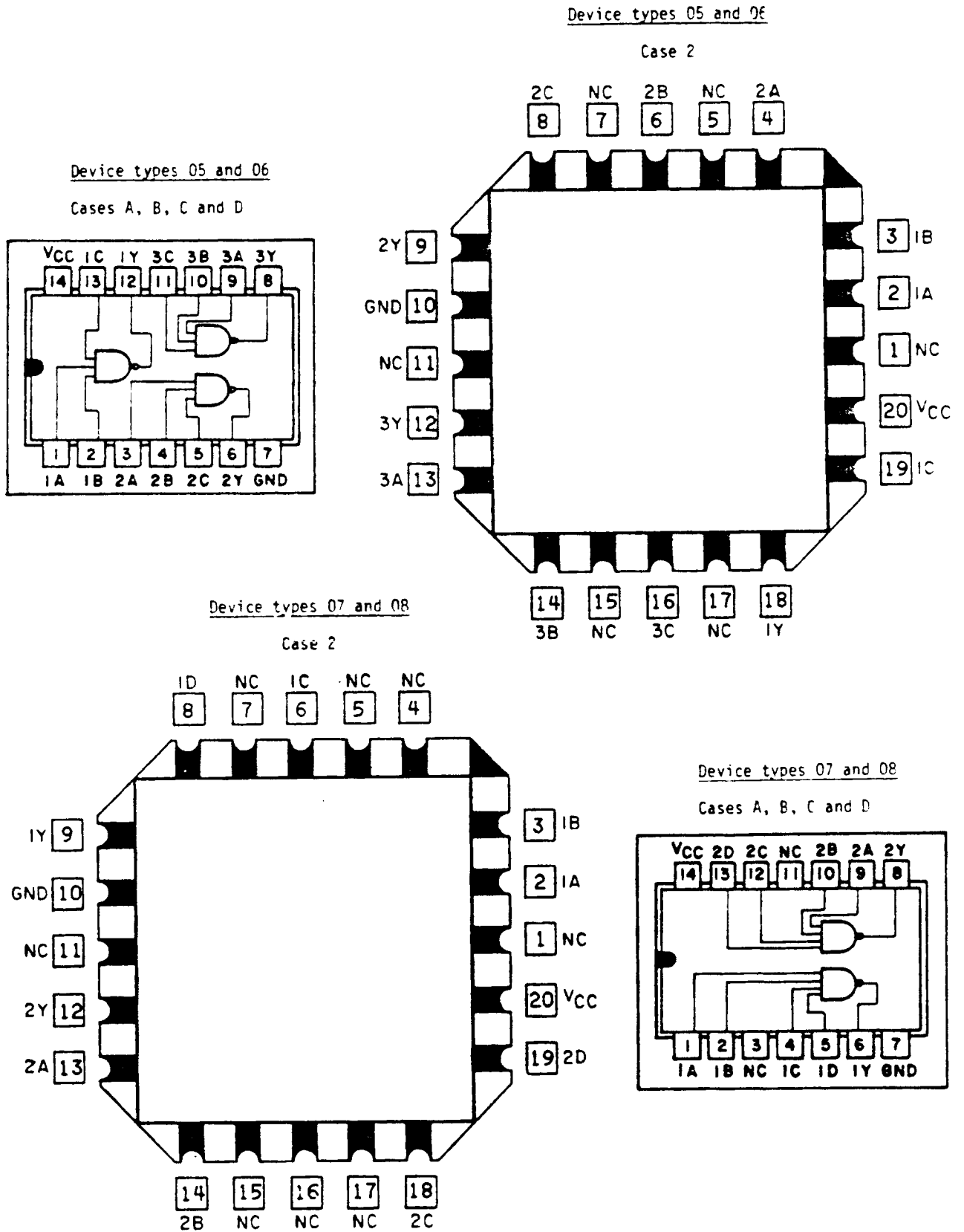
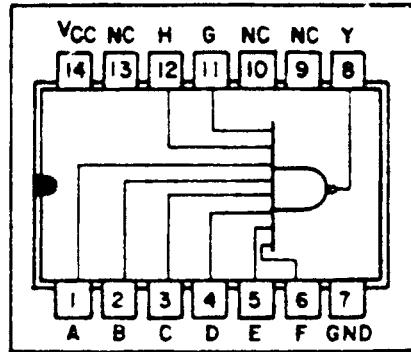


FIGURE 1. Logic diagrams and terminal connections (top view) - Continued.

Device type 09
Cases A, B, C and D



Device type 09
Case 2

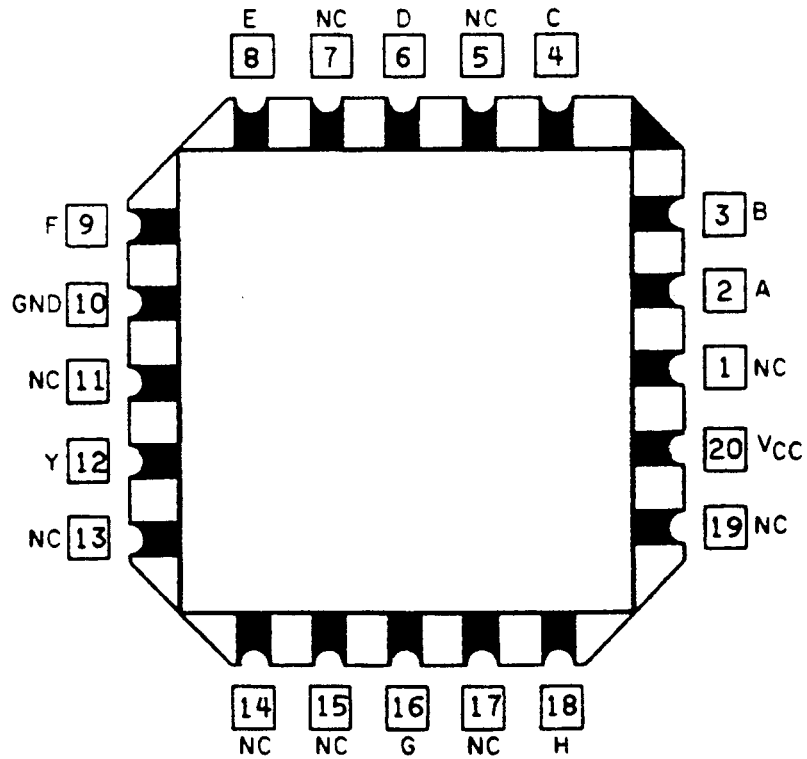


FIGURE 1. Logic diagrams and terminal connections (top view) - Continued.

Device types 01 and 02

Truth table each gate		
Input		Output
A	B	Y
L	L	H
H	L	H
L	H	H
H	H	L

Positive logic $Y = \overline{AB}$

Device types 03 and 04

Truth table each gate	
Input	Output
A	Y
L	H
H	L

Positive logic $Y = \overline{A}$

Device types 05 and 06

Truth table each gate			
Input			Output
A	B	C	Y
L	L	L	H
H	L	L	H
L	H	L	H
H	H	L	H
L	L	H	H
H	L	H	H
L	H	H	H
H	H	H	L

Positive logic $Y = \overline{ABC}$

Device types 07 and 08

Truth table each gate				
Input				Output
A	B	C	D	Y
L	L	L	L	H
H	L	L	L	H
L	H	L	L	H
H	H	L	L	H
L	L	H	L	H
H	L	H	L	H
L	H	H	L	H
H	H	H	L	H
L	L	L	H	H
H	L	L	H	H
L	H	L	H	H
H	H	L	H	H
L	L	H	H	H
H	L	H	H	H
L	H	H	H	H
H	H	H	H	L

Positive logic $Y = \overline{ABCD}$

Device type 09

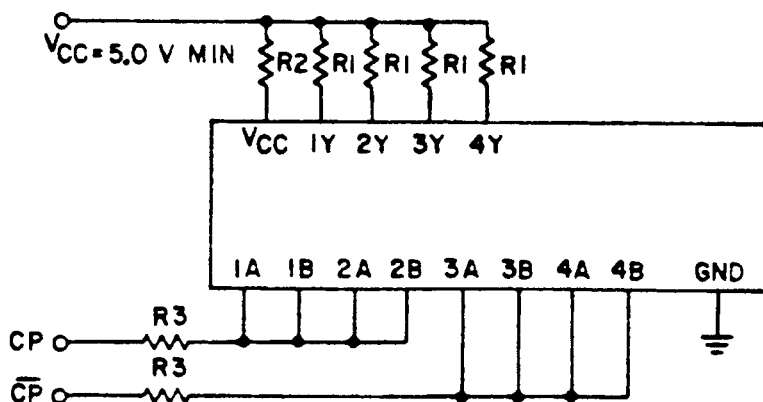
Truth table								
Inputs								Output
A	B	C	D	E	F	G	H	Y
H	H	H	H	H	H	H	H	L

All other combinations of H and L at the inputs give H output.

Positive logic $Y = \overline{ABCDEFGH}$

FIGURE 2. Truth tables and logic equations.

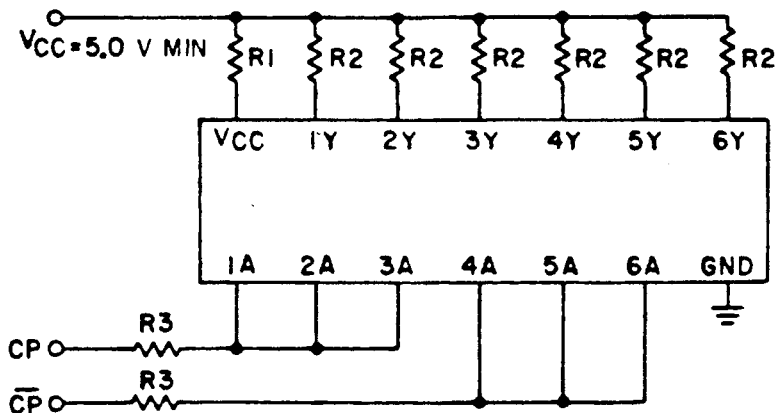
Device types 01 and 02



NOTES:

1. CP or \overline{CP} = 100 kHz \pm 50% square wave; duty cycle = 50 \pm 15%; V_{IH} = 2.0 V minimum to 5.5 V maximum; V_{IL} = -0.5 V minimum to 0.7 V maximum.
2. R1 = 1 k Ω \pm 5%; R2 = 10 Ω \pm 5%; R3 = 27 Ω \pm 5%.
3. V_{CC} shall be high enough to insure that 5.0 V minimum is present at device V_{CC} terminal.

Device types 03 and 04

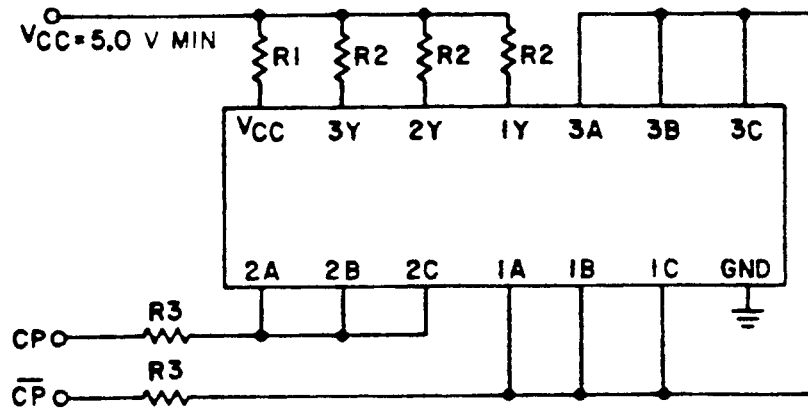


NOTES:

1. R1 = 10 Ω \pm 5%; R2 = 1 k Ω \pm 5%; R3 = 27 Ω \pm 5%.
2. CP or \overline{CP} = 100 kHz \pm 50% square wave; duty cycle = 50 \pm 15%; V_{IH} = 2.0 V minimum to 5.5 V maximum; V_{IL} = -0.5 V minimum to 0.7 V maximum.
3. V_{CC} shall be high enough to insure that 5.0 V minimum is present at device V_{CC} terminal.

FIGURE 3. Burn-in and life test circuit.

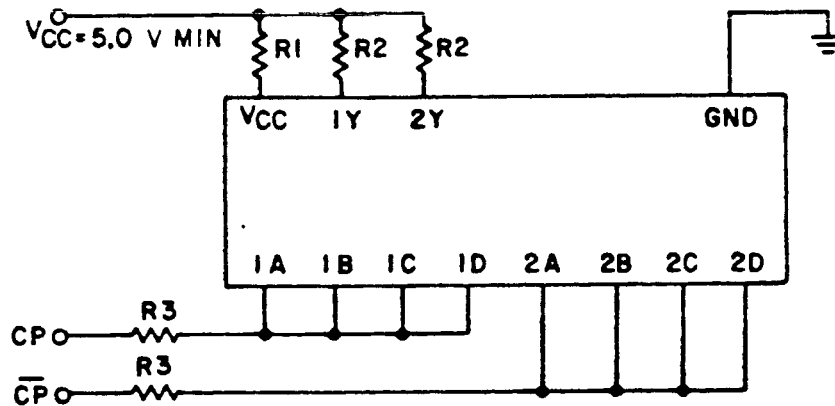
Device types 05 and 06



NOTES:

1. $R1 = 10\Omega \pm 5\%$; $R2 = 1\text{ k}\Omega \pm 5\%$; $R3 = 27\Omega \pm 5\%$.
2. CP or $\overline{\text{CP}}$ = 100 kHz $\pm 50\%$ square wave; duty cycle = $50 \pm 15\%$; $V_{IH} = 2.0\text{ V}$ minimum to 5.5 V maximum; $V_{IL} = -0.5\text{ V}$ minimum to 0.7 V maximum.
3. V_{CC} shall be high enough to insure that 5.0 V minimum is present at device V_{CC} terminal.

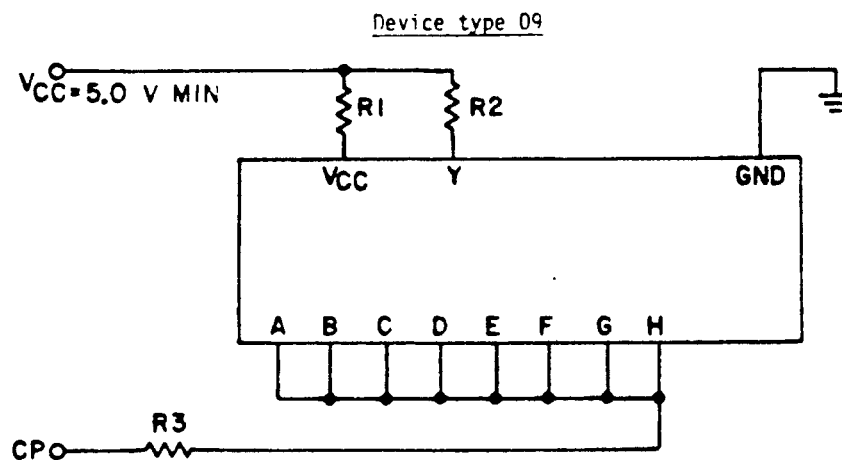
Device types 07 and 08



NOTES:

1. CP or $\overline{\text{CP}}$ = 100 kHz $\pm 50\%$ square wave; duty cycle = $50 \pm 15\%$; $V_{IH} = 2.0\text{ V}$ minimum to 5.5 V maximum; $V_{IL} = -0.5\text{ V}$ minimum to 0.7 V maximum.
2. $R1 = 10\Omega \pm 5\%$; $R2 = 1\text{ k}\Omega \pm 5\%$; $R3 = 27\Omega \pm 5\%$.
3. V_{CC} shall be high enough to insure that 5.0 V minimum is present at device V_{CC} terminal.

FIGURE 3. Burn-in and life test circuit - Continued.

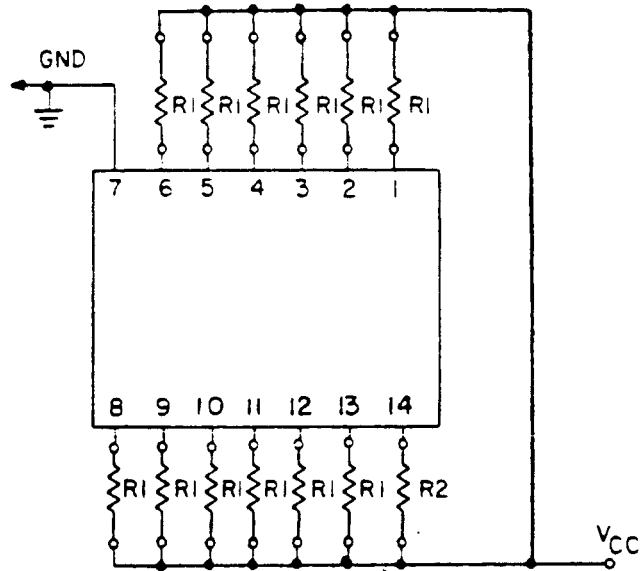


NOTES:

1. $R1 = 10\Omega \pm 5\%$; $R2 = 1\text{ k}\Omega \pm 5\%$; $R3 = 27\Omega \pm 5\%$.
2. CP = 100 kHz $\pm 50\%$ square wave; duty cycle = 50 $\pm 15\%$; $V_{IH} = 2.0\text{ V}$ minimum to 5.5 V maximum; $V_{IL} = -0.5\text{ V}$ minimum to 0.7 V maximum.
3. V_{CC} shall be high enough to insure that 5.0 V minimum is present at device V_{CC} terminal.

FIGURE 3. Burn-in and life test circuit - Continued.

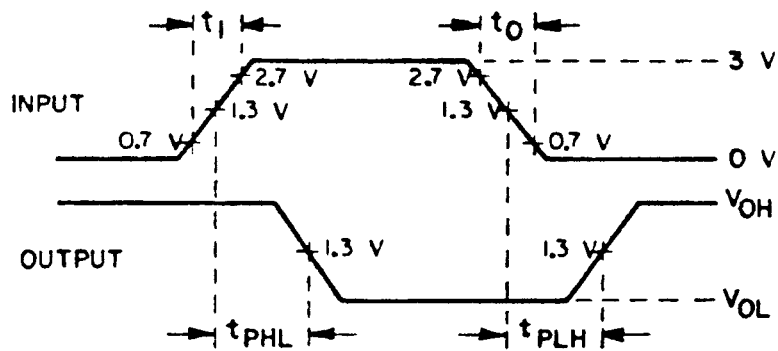
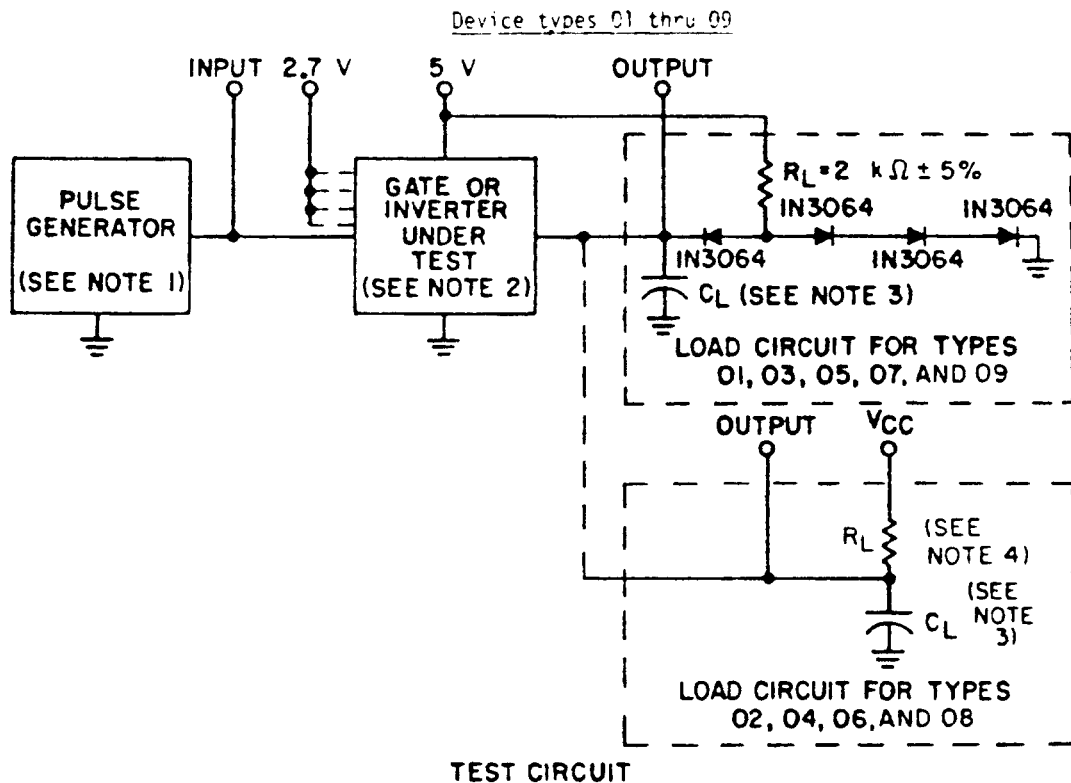
All device types



NOTES:

1. High temperature (175°C), condition F circuit only.
2. $R_1 = 2k\Omega$, $R_2 = 2\Omega$
3. V_{cc} shall be chosen such that 5.0 v minimum is present at V_{cc} terminal

FIGURE 3. Burn-in and life test circuits - Continued.

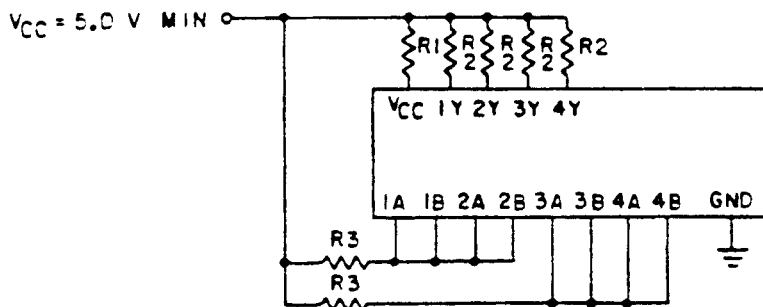


NOTES:

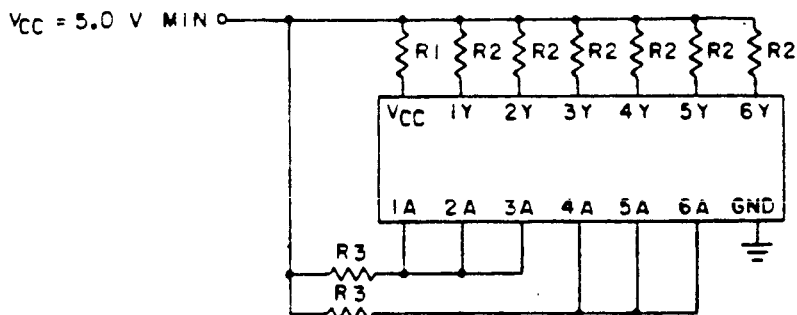
1. Pulse generator has following characteristics:
 $t_1 \leq 15 \text{ ns}$, $t_0 \leq 6 \text{ ns}$, $\text{PRR} \leq 1 \text{ MHz}$, duty cycle = 50% and $Z_{\text{OUT}} \approx 50\Omega$.
2. Inputs not under test are at 2.7 V.
3. $C_L = 50 \text{ pF} \pm 10\%$, including scope probe, wiring, and stray capacitance.
4. $R_L = 2 \text{ k}\Omega \pm 5\%$.
5. Voltage measurements are to be made with respect to network ground terminal.

FIGURE 4. Switching time test circuit and waveforms for device types 01 through 09.

Device types 01 and 02



Device types 03 and 04



Device types 05 and 06

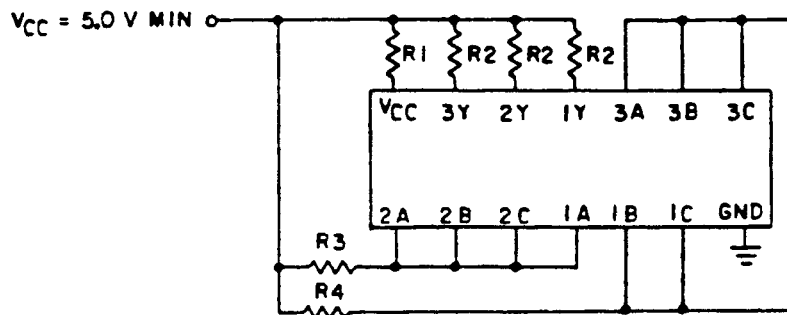
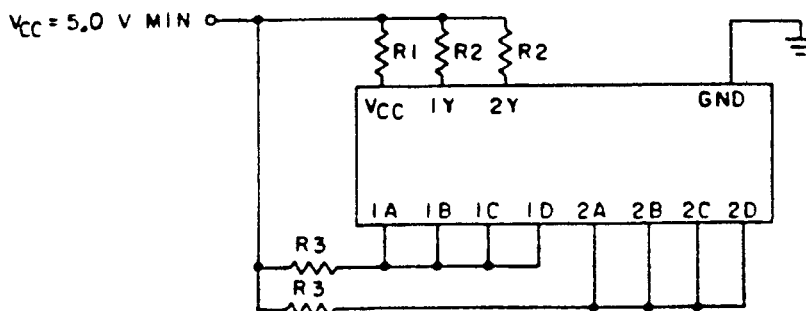
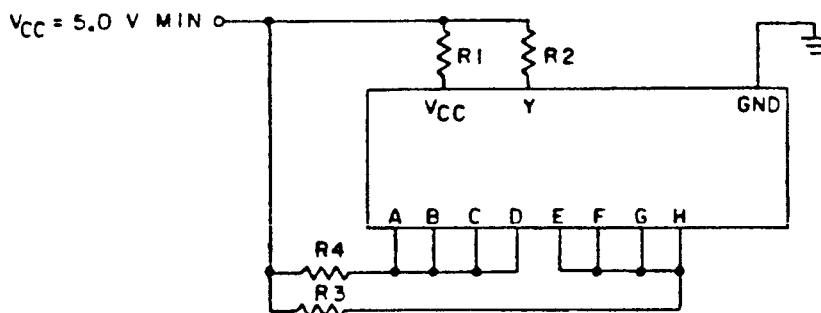


FIGURE 5. Bias conditions for total dose radiation test.

Device types 07 and 08



Device type 09



Bias conditions

Device type	V _{CC} (volts) ^{1/}	R ₁ (ohms)	R ₂ (ohms)	R ₃ (ohms)	R ₄ (ohms)
01	5.5	0	1.3 k	1.3 k	- - -
02	5.5	0	1.3 k	1.3 k	- - -
03	5.5	0	1.3 k	1.8 k	- - -
04	5.5	0	1.3 k	1.8 k	- - -
05	5.5	0	1.3 k	1.3 k	1.0 k
06	5.5	0	1.3 k	1.3 k	1.0 k
07	5.5	0	1.3 k	1.3 k	- - -
08	5.5	0	1.3 k	1.3 k	- - -
09	5.5	0	1.4 k	1.3 k	1.3 k

^{1/} V_{CC} shall be high enough to insure that a 5.0 volts minimum is present at the device test V_{CC} terminal.

FIGURE 5. Bias conditions for total dose radiation test - Continued.

TABLE III. Group A Inspection for device type 01.
Terminal conditions (pins not designated may be high > 2.0 V or low < 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Leads A, B, C, D Case 17										LIMIT																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured Terminal	Min	Max	Unit				
I T _c = +25°C	V _{OH}	3006	1A	5.5 V	0.7 V	-400 μA	5.5 V	5.5 V	GND	GND	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1V	2.5		V				
			2	0.7 V	5.5 V	-400 μA	5.5 V	5.5 V																1V			V			
			3	5.5 V			0.7 V	5.5 V	-400 μA	5.5 V	5.5 V														2V			V		
			4				0.7 V	5.5 V	-400 μA	5.5 V	5.5 V														3V			V		
			5					5.5 V		0.7 V	5.5 V	-400 μA	5.5 V	5.5 V											3V			V		
			6										-400 μA	5.5 V	5.5 V										4V			V		
			7																						4V			V		
			8																						4V			V		
I _{OL}	3007		9	2.0 V	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	1V			0.4	V			
			10	GND	GND		2.0 V	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	2V				V		
			11																					3V				V		
			12																					4V				V		
I _{IC}			13	-18 mA	-18 mA																		1A				-1.5	V		
			14																					1B					V	
			15																					2A					V	
			16																						2B					V
			17																						3A					V
			18																						3B					V
			20																						4A					V
I _{IH1}	3010		21	2.7 V	GND	2.7 V	GND	GND															1A					20 μA		
			22	GND	2.7 V	GND																		1B					V	
			23																					2A					V	
			24																						2B					V
			25																						3A					V
			26																						3B					V
			27																						4A					V
			28																						4B					V
I _{IH2}			29	5.5 V	5.5 V																		1A					100	V	
			30	GND	GND																			1B					V	
			31																					2A					V	
			32																						2B					V
			33																						3A					V
			34																						3B					V
			35																						4A					V
			36																						4B					V
I _{IL}	3009		37	0.4 V	5.5 V	0.4 V	5.5 V	5.5 V															1A					2/	V	
			38	5.5 V	0.4 V	5.5 V	0.4 V	5.5 V																1B					V	
			39																						2A					V
			40																						2B					V
			41																						3A					V
			42																						3B					V
			44																						4A					V
I _{OS}	3011		45	GND	GND	GND	GND	GND															1V					3/	mA	
			46																					2V					V	
			47																					3V					V	
			48																					4V					V	
I _{CCH}	3005		49	GND	GND	GND	GND	GND															V _{CC}					1.6	V	
			50	5.5 V	5.5 V																			V _{CC}					4.4	V

See footnotes at end of device type 01.

TABLE III. Group A Inspection for device type 01 - Continued.
Terminal conditions (pins not designated may be High ± 2.0 V or Low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Case	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Min	Max	Unit			
			A, B, C, D	1A	1B	1V	2A	2B	2Y	CMO	3Y	3A	3B	4V	4A	4B	V _{CC}							
2	Some tests, terminal conditions, and limits as for subgroup 1, except T _C = +125°C and V _{IC} tests are omitted.	3003 (Fig 4)	A, B, C, D	Case 1	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	5.0 V	1A to 1V	2	17	ns		
				Case 2	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1B to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1C to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1D to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1E to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1F to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1G to 1V	-	-	-
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1H to 1V	-	-	-
3	Some tests, terminal conditions, and limits as for subgroup 1, except T _C = -55°C and V _{IC} tests are omitted.		A, B, C, D	Case 1	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1A to 1V	2	17	ns		
				Case 2	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1B to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1C to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1D to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1E to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1F to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1G to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1H to 1V	-	-	-	
10	Some tests, terminal conditions, and limits as for subgroup 10, except T _C = -55°C.		A, B, C, D	Case 1	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1A to 1V	2	17	ns		
				Case 2	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1B to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1C to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1D to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1E to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1F to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1G to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1H to 1V	-	-	-	
11	Some tests, terminal conditions, and limits as for subgroup 10, except T _C = -55°C.		A, B, C, D	Case 1	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1A to 1V	2	17	ns		
				Case 2	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1B to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1C to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1D to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1E to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1F to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1G to 1V	-	-	-	
					IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	1H to 1V	-	-	-	

1/ For case 2, pins not referenced are NC.

2/ I/O limits in μ A are as follows:

Measured terminal	Min/max limits for circuit				
	A	B	C	D	F
1A, 1B, 2A, 2B	-120/-360	-30/-300	-150/-380	-160/-400	-150/-380
3A, 3B, 4A, 4B					-100/-340

3/ I/O limits for circuit C: -20/-100; for circuits A, B, C, D, E, and F: -15/-100.

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TABLE III. Group A. Inspection for device type OZ.
Terminal conditions (pins not designated may be high ≥ 2.0 V or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883C method	TEST no.														Limits					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Unit				
1 $T_C = +25^\circ C$	V_{OL}	3007	1	2.0 V	2.0 V	4 mA	GND	2.0 V	GND	4 mA	GND	2.0 V	GND	4 mA	4 mA	2.0 V	2.0 V	1V	0.4 V			
			2	GND	GND	.	2.0 V	GND	.	2.0 V	GND	.	2.0 V	GND	.	2.0 V	.	2V	.			
			3	.	.	.	GND	GND	.	GND	GND	.	GND	GND	.	2.0 V	.	3V	.			
			4	.	.	.	GND	GND	.	GND	GND	.	GND	GND	.	2.0 V	.	4V	.			
	I_{CER}			5	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	1V	100 μA		
				6	5.5 V	0.7 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	1V	.		
				7	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	2V	.		
				8	.	.	.	5.5 V	0.7 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	2V	.	
				9	.	.	.	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	2V	.	
				10	0.7 V	5.5 V	5.5 V	0.7 V	5.5 V	5.5 V	3V	.
				11	.	.	.	.	.	.	.	.	.	.	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	4V	.
				12	.	.	.	.	.	.	.	.	.	.	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	4V	.
V_{IC}			13	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	.	.	.	.	.	.	.	.	.	1A	-1.5 V		
			14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1B	.	
			15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2A	.
			16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2B	.
			17	3A	.
			18	3B	.
			19	4A	.
			20	4B	.
			I_{IH1}	3010		21	2.7 V	GND	.	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	1A	20 μA
						22	GND	2.7 V	.	2.7 V	GND	.	2.7 V	GND	.	2.7 V	GND	.	2.7 V	GND	1B	.
23	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	2A	.	
24	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	.	2B	.
25	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	.	3A	.
26	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	.	3B	.
27	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	.	4A	.
28	.	.				.	.	.	.	.	.	.	.	.	.	.	.	.	.	4B	.
I_{IH2}			29	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	1A	100			
			30	GND	GND	GND	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	1B	.			
			31	.	.	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	2A	.			
			32	.	.	.	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	2B	.			
			33	.	.	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	3A	.			
			34	.	.	.	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	3B	.			
			35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4A	.
			36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4B	.
I_{IL}	3009		37	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	1A	2/			
			38	5.5 V	0.4 V	5.5 V	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	1B	.			
			39	.	.	.	0.4 V	5.5 V	.	0.4 V	5.5 V	.	0.4 V	5.5 V	.	0.4 V	5.5 V	2A	.			
			40	.	.	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	.	5.5 V	5.5 V	2B	.			
			41	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3A	.
			42	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3B	.
			43	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4A	.
			44	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4B	.
I_{CCL}	3008		45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	VCC	4.4 mA		
			46	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	.	GND	GND	VCC	1.6 mA			

2 Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = +125^\circ C$ and V_{IC} tests are omitted.

3 Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = -55^\circ C$ and V_{IC} tests are omitted.

See footnotes at end of device type OZ.

TABLE III. Group A Inspection for device type 02 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases																Limits				
			IA, A, C, D Case 1/2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Min	Max	Unit		
9 $T_C = +25^\circ C$	t_{pHL}	3003 (Fig. 4)	47	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1A to 1V	2	36	ns		
			48	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1B to 1V				
			49	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2A to 2V			
			50	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2B to 2V			
			51	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3A to 3V			
			52	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3B to 3V			
10 $T_C = +125^\circ C$	t_{pHL}		55	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1A to 1V		40			
			56	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1B to 1V				
			57	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2A to 2V			
			58	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2B to 2V			
			59	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3A to 3V			
			60	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3B to 3V			
11	Same tests, terminal conditions, and limits as for subgroup 10, except $T_C = -55^\circ C$.		61	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1A to 1V					
			62	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1B to 1V				
			63	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2A to 2V			
			64	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2B to 2V			
			65	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3A to 3V			
			66	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3B to 3V			
12	Same tests, terminal conditions, and limits as for subgroup 10, except $T_C = -55^\circ C$.		71	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1A to 1V		55			
			72	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1B to 1V				
			73	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2A to 2V			
			74	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2B to 2V			
			75	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3A to 3V			
			76	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	3B to 3V			

1/ For case 2, pins not referenced are NC.

2/ I/L limits in μA are as follows:

Measured terminal	Min/max limits for circuit			
	A	B	C	F
1A, 1B, 2A, 2B	-160/-400	-30/-300	-150/-300	-150/-300
3A, 3B, 4A, 4B	-160/-400	-30/-300	-150/-300	-100/-340

TABLE III. Group A inspection for device type 03.
Terminal conditions (pins not designated may be high ≥ 2.0 V or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases 1A, 1C, D														Limits			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Unit		
1 $T_C = +25^\circ\text{C}$	V_{OH}	3006	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1V 2V 3V 4V 5V 6V	V		
			1A	1V	2A	2V	3A	3V	4A	4V	5A	5V	6A	6V	VCC					
			1	0.7 V	1-400 μA	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	4.5 V
			2	5.5 V	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	
			3	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	
			4	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	
2	V_{OL}	3007	7	8	9	10	11	12	13	14	15	16	17	18	19	20	1V 2V 3V 4V 5V 6V	V		
			7A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A	17A	18A	19A			20A	
			7	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			8	GND	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			9	GND	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			10	GND	2.0 V	4 mA	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
3	V_{IC}		13	14	15	16	17	18	19	20	21	22	23	24	25	26	1A 2A 3A 4A 5A 6A	V		
			13A	14A	15A	16A	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A				
			13	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			-18 mA	-18 mA
			14	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			-18 mA	-18 mA
			15	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			-18 mA	-18 mA
			16	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			-18 mA	-18 mA
4	I_{IH1}	3010	19	20	21	22	23	24	25	26	27	28	29	30	31	32	1A 2A 3A 4A 5A 6A	μA		
			19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A				
			19	2.7 V	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	5.5 V
			20	GND	2.7 V	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	
			21	GND	2.7 V	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	
			22	GND	2.7 V	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	
5	I_{IH2}		25	26	27	28	29	30	31	32	33	34	35	36	37	38	1A 2A 3A 4A 5A 6A	V		
			25A	26A	27A	28A	29A	30A	31A	32A	33A	34A	35A	36A	37A	38A				
			25	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	5.5 V
			26	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			27	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			28	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
6	I_{IL}	3009	31	32	33	34	35	36	37	38	39	40	41	42	43	44	1A 2A 3A 4A 5A 6A	V		
			31A	32A	33A	34A	35A	36A	37A	38A	39A	40A	41A	42A	43A	44A				
			31	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	5.5 V
			32	5.5 V	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	5.5 V
			33	5.5 V	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	5.5 V
			34	5.5 V	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			5.5 V	5.5 V
7	I_{OS}	3011	37	38	39	40	41	42	43	44	45	46	47	48	49	50	1V 2V 3V 4V 5V 6V	mA		
			37A	38A	39A	40A	41A	42A	43A	44A	45A	46A	47A	48A	49A	50A				
			37	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			38	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			39	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
			40	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			GND	GND
8	I_{CCH}	3005	43	44	45	46	47	48	49	50	51	52	53	54	55	VCC	V			
			43A	44A	45A	46A	47A	48A	49A	50A	51A	52A	53A	54A	55A					
9	I_{CCL}	3005	44	45	46	47	48	49	50	51	52	53	54	55	56	57	VCC	V		
			44A	45A	46A	47A	48A	49A	50A	51A	52A	53A	54A	55A	56A	57A				

2 Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = +125^\circ\text{C}$ and V_{IC} tests are omitted.

3 Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = -55^\circ\text{C}$ and V_{IC} tests are omitted.

See footnotes at end of device type 03.

TABLE III. Group A Inspection for device type 03 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, B, C, D		Terminals														Limits									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured terminal	Min	Max	Unit		
9 $T_C = +25^\circ\text{C}$	tPHL	3003 (Fig. 4)	45	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			46	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
			47	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
			48	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
			49	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
10 $T_C = +125^\circ\text{C}$	tPLH		51	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			52	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			53	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			54	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
			55	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
			56	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns
10 $T_C = +125^\circ\text{C}$	tPHL		57	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			58	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			59	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			60	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
10 $T_C = +125^\circ\text{C}$	tPLH		61	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			62	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			63	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			64	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
11	Same tests, terminal conditions, and limits as for subgroup 10, except $T_C = -55^\circ\text{C}$.		65	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			66	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			67	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns	
			68	2.7 V	IN	2.7 V	OUT	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns

1/ For case 2, pins not referenced are NC.

2/ I_{IL} limits in μA are as follows:

Measured terminal	Min/Max limits for circuit					
	A	B	C	D	E	F
1A, 2A, 3A, 4A, 5A, 6A	-150/-380	-30/-300	-180/-380	-160/-400	-150/-380	-100/-340

3/ I_{OS} limits for circuit C: -20/-100 μA ; for circuits A, B, D, E, and F: -15/-100 μA .

TABLE III. Group A Inspection for device Type 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, B, C, D Case 1/2 Test no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	LIMITS		Unit				
				1A	1V	2A	2V	3A	3V	4V	5A	5V	6A	6V	7A	7V	8A		8V	Min		Max			
9 $T_C = +25^\circ C$	I _{epLM}	3003 (Fig. 4)	45	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	1A to 1V 2A to 2V 3A to 3V 4A to 4V 5A to 5V 6A to 6V	2	40	ms				
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
10 $T_C = +125^\circ C$	I _{epLM}		51	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	1A to 1V 2A to 2V 3A to 3V 4A to 4V 5A to 5V 6A to 6V	2	55	ms				
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
11	I _{epLM}		57	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	1A to 1V 2A to 2V 3A to 3V 4A to 4V 5A to 5V 6A to 6V	2	60	ms				
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
				IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT

1/ Same tests, terminal conditions, and limits as for subgroup 10, except $T_C = -55^\circ C$.

2/ For case 2, pins not referenced are NC.

3/ I/L limits in μA are as follows:

Measured terminal	Min/max limits for circuit					
	A	B	C	D	E	F
1A, 2A, 3A, 4A, 5A, 6A	-150/-380	-30/-300	-150/-380	-160/-400	-150/-380	-120/-360

TABLE III. Group A Inspection for device type 05.
 Terminal conditions (pins not designated may be High > 2.0 V or Low < 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases																		Limits																																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Measured terminal	Unit																																															
$T_C = +25^\circ C$	V_{OH}	3006	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Meas	Max	Min	Unit																																
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			2.5	V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
			1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				V																															
V_{OL}	3007	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				V																																
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				V																																
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				V																																
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				V																																
I_{IH}	3010	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				V				
		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				V				
		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				V				
		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				V				
		I_{IH2}	3009	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
				40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V		
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V		
I_{OH}	3011	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V											
		49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V											
		49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V											
I_{OL}	3005	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V														
		52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V														
I_{OCL}	3005	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V															
		53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				V															

MIL-N-38510/3002

TABLE III. Group A Inspection for device type 06.
Terminal conditions (pins not designated may be high > 2.0 V or low < 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, B, C, D	Terminal conditions (pins not designated may be high > 2.0 V or low < 0.7 V, or open)														Limits			
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Unit		
				1A	2A	2B	2C	2Y	2Z	3A	3B	3C	3Y	3Z	4A	4B	4C				
1 T _C = +25°C	V _{OL}	3007	1	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	4.5 V	0.4 V		
			2	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	4.5 V	0.4 V	
			3	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
	I _{CEX}			4	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				5	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				6	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				7	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				8	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				9	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				10	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				11	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
				12	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
V _{IC}			13	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			14	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			15	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			16	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			17	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			18	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
			19	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-1.5 V	1.4 mA		
I _{IHI}	3010		22	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA		
			23	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
			24	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	
			25	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
			26	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
			27	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
			28	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
			29	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
			30	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.5 V	20 μA	
	I _{IHR}			31	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA	
			32	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA		
			33	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	5.6 V	100 μA		
			34	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	
			35	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA		
			36	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA		
			37	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	
			38	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA		
			39	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100 μA		
I _{IL}		3009		40	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/	
			41	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			42	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			43	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			44	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			45	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			46	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
			47	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/		
I _{ICH}	3005		49	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	V _{CC}	1.4 mA		
	3005		50	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	V _{CC}	3.3 mA		
2	Same tests, terminal conditions, and limits as for subgroup 1, except T _C = +125°C and V _{IC} tests are omitted.																				
3	Same tests, terminal conditions, and limits as for subgroup 1, except T _C = -55°C and V _{IC} tests are omitted.																				

See footnotes at end of device type 06.

TABLE III. Group A Inspection for device type 06 - Continued.
Terminal conditions (pins not designated may be HIGH > 2.0 V or low < 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883C method	Case I A, B, C, D	TERMINALS																	Unit									
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18	19	20	Measured terminal	Min	Max			
9 T _C = +25°C	t _{PHL}	3003 (Fig 4)	51	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	5.0 V	1A to 1V	2	36	ns				
				2.7 V	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	2.7 V
10 T _C = +125°C	t _{PHL}	3003 (Fig 4)	60	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	ns				
				2.7 V	IN	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
				2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		2.7 V	2.7 V	2.7 V	
11	Same tests, terminal conditions, and limits as for subgroup 10, except T _C = -55°C.																													

1/ For case Z, pins not referenced are NC.

2/ I_{IL} limits in μA are as follows:

Measured terminal	Min/Max limits for circuit			
	A	B	C	D
1A, 1B, 1C, 2A, 2B,	-160/-400	-30/-300	-150/-380	-160/-400
2C, 3A, 3B, 3C				-150/-380

TABLE III. Group A Inspection for device type 07.
Terminal conditions (pins not designated may be High > 2.0 V or Low < 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Case 17																	Limits							
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Measured terminal	Min	Max	Unit				
1 Tc = +25°C	V _{OH}	3006	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1O	1P	1Q	1R	1S	1T	1U				
			1	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2.5
2	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
3	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
4	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
5	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
6	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
7	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
8	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
2 V _{OL}	9	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	0.4	0.4	
	10	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	0.4	0.4	
3 V _{IC}	11	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-1.5		
	12	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			
	13	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA			
	14	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA		
	15	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA		
	16	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA		
	17	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA		
	18	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA		
4 I _{IHI}	19	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	20	20	
	20	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			
	21	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V			
	22	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
	23	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V		
	24	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
	25	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V			
	26	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
5 I _{IL}	27	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	100		
	28	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			
	29	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	30	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
	31	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	32	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
	33	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	34	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND		
	35	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V		
6 I _{IOS}	3009	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2/	2/	
	36	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
7 I _{ICW}	37	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	38	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
8 I _{IOL}	39	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	40	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
9 I _{IOL}	41	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
	42	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			
10 I _{IOL}	3011	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	3/	3/	
	3011	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	3/	3/	
11 I _{IOL}	3005	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	0.6	0.6	
	3005	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND			
12 I _{IOL}	3005	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	7.2	7.2	

2 Same tests, terminal conditions, and limits as for subgroup 1, except T_c = +125°C and V_{IC} tests are omitted.

3 Same tests, terminal conditions, and limits as for subgroup 1, except T_c = -55°C and V_{IC} tests are omitted.

See footnotes at end of device type 07.

TABLE III. Group A Inspection for device type 07 - Continued.
Terminal conditions (pins not designated may be high ± 2.0 V or low ± 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases																				LIMITS					
			A, B, C, D		E		F		G		H		I		J		K		L		Measured terminal	Unit						
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Min	Max				
9 $T_C = +25^\circ\text{C}$	t_{PHL}	3003 (Fig 4)	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1O	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z
			2A	2B	2C	2D	2E	2F	2G	2H	2I	2J	2K	2L	2M	2N	2O	2P	2Q	2R	2S	2T	2U	2V	2W	2X	2Y	2Z
			3A	3B	3C	3D	3E	3F	3G	3H	3I	3J	3K	3L	3M	3N	3O	3P	3Q	3R	3S	3T	3U	3V	3W	3X	3Y	3Z
			4A	4B	4C	4D	4E	4F	4G	4H	4I	4J	4K	4L	4M	4N	4O	4P	4Q	4R	4S	4T	4U	4V	4W	4X	4Y	4Z
			5A	5B	5C	5D	5E	5F	5G	5H	5I	5J	5K	5L	5M	5N	5O	5P	5Q	5R	5S	5T	5U	5V	5W	5X	5Y	5Z
			6A	6B	6C	6D	6E	6F	6G	6H	6I	6J	6K	6L	6M	6N	6O	6P	6Q	6R	6S	6T	6U	6V	6W	6X	6Y	6Z
			7A	7B	7C	7D	7E	7F	7G	7H	7I	7J	7K	7L	7M	7N	7O	7P	7Q	7R	7S	7T	7U	7V	7W	7X	7Y	7Z
10 $T_C = +125^\circ\text{C}$	t_{PHL}	3003 (Fig 4)	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1O	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z
			2A	2B	2C	2D	2E	2F	2G	2H	2I	2J	2K	2L	2M	2N	2O	2P	2Q	2R	2S	2T	2U	2V	2W	2X	2Y	2Z
			3A	3B	3C	3D	3E	3F	3G	3H	3I	3J	3K	3L	3M	3N	3O	3P	3Q	3R	3S	3T	3U	3V	3W	3X	3Y	3Z
			4A	4B	4C	4D	4E	4F	4G	4H	4I	4J	4K	4L	4M	4N	4O	4P	4Q	4R	4S	4T	4U	4V	4W	4X	4Y	4Z
			5A	5B	5C	5D	5E	5F	5G	5H	5I	5J	5K	5L	5M	5N	5O	5P	5Q	5R	5S	5T	5U	5V	5W	5X	5Y	5Z
			6A	6B	6C	6D	6E	6F	6G	6H	6I	6J	6K	6L	6M	6N	6O	6P	6Q	6R	6S	6T	6U	6V	6W	6X	6Y	6Z
			7A	7B	7C	7D	7E	7F	7G	7H	7I	7J	7K	7L	7M	7N	7O	7P	7Q	7R	7S	7T	7U	7V	7W	7X	7Y	7Z
11	Same tests, terminal conditions, and limits as for subgroup 10, except $T_C = -55^\circ\text{C}$.	3003 (Fig 4)	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1O	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z
			2A	2B	2C	2D	2E	2F	2G	2H	2I	2J	2K	2L	2M	2N	2O	2P	2Q	2R	2S	2T	2U	2V	2W	2X	2Y	2Z
			3A	3B	3C	3D	3E	3F	3G	3H	3I	3J	3K	3L	3M	3N	3O	3P	3Q	3R	3S	3T	3U	3V	3W	3X	3Y	3Z
			4A	4B	4C	4D	4E	4F	4G	4H	4I	4J	4K	4L	4M	4N	4O	4P	4Q	4R	4S	4T	4U	4V	4W	4X	4Y	4Z
			5A	5B	5C	5D	5E	5F	5G	5H	5I	5J	5K	5L	5M	5N	5O	5P	5Q	5R	5S	5T	5U	5V	5W	5X	5Y	5Z
			6A	6B	6C	6D	6E	6F	6G	6H	6I	6J	6K	6L	6M	6N	6O	6P	6Q	6R	6S	6T	6U	6V	6W	6X	6Y	6Z
			7A	7B	7C	7D	7E	7F	7G	7H	7I	7J	7K	7L	7M	7N	7O	7P	7Q	7R	7S	7T	7U	7V	7W	7X	7Y	7Z

1/ For case 2, pins not referenced are NC.

2/ I/O limits in μA are as follows:

Measured terminal	Min/max limits for circuit			
	A	B	C	D
1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D	-120/-340	-30/-300	-160/-400	-120/-360
			-150/-380	-100/-340

3/ I/O limits for circuit E: -20/-100 mA; for circuits A, B, D, E, and F: -15/-100 mA.

TABLE III. Group A inspection for device type 08.
Terminal conditions (pins not designated may be high \geq 2.0 V or low \leq 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A,B,C,D														Measured Terminal	Limits		Unit																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1	VOL	3007	1	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	4 mA	4 mA	GND	GND	GND	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	GND	GND	4.5 V	1Y	0.4 V																			
			2	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	4 mA	4 mA	GND	GND	GND	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	GND	GND	4.5 V	2Y	0.4 V																		
1	VICEX	3007	3	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1Y	100 μ A																			
			4	5.5 V	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1Y	-																		
			5	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1Y	-																		
			6	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1Y	-																		
			7	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2Y	-																		
			8	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2Y	-																		
			9	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2Y	-																		
			10	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2Y	-																		
			1	VIC		11	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	1A	-1.5 V																
						12	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	1B	-															
13	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	1C	-																	
14	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	1D	-																
15	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	2A	-																
16	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	2B	-																
17	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	2C	-																
18	-18 mA	-18 mA				-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	-18 mA	2D	-																
1	VIN1	3010	19	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	GND	1A	20 μ A																			
			20	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1B	-																		
			21	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1C	-																		
			22	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	1D	-																		
			23	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2A	-																	
			24	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2B	-																	
1	VIN2		27	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	GND	1A	100																			
			28	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1B	-																			
			29	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1C	-																		
			30	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1D	-																		
			31	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2A	-																		
			32	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2B	-																	
1	IIL	3009	35	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1A	2/ V																			
			36	5.5 V	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1B	-																			
			37	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1C	-																		
			38	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	1D	-																		
			39	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2A	-																		
			40	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2B	-																		
			41	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2C	-																		
			42	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	2D	-																		
2	VICLL	3005	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	VCC	2.2 mA																				
			44	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	VCC	0.8 mA																		
2	Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = +125^\circ\text{C}$ and V_{IC} tests are omitted.																																										
3	Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = -55^\circ\text{C}$ and V_{IC} tests are omitted.																																										

See footnotes at end of device type 08.

TABLE III. Group A Inspection for device type 06 - Continued.
Terminal conditions (pins not designated may be high ± 2.0 V or low ± 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, B, C, D										Limits							
			Case 1/		Case 2/		Case 3/		Case 4/		Case 5/			Measured terminal	Unit					
			1A	2	3	4	5	6	7	8	9	10				11	12	13	14	
9 T _C = +25°C	t _{PHL}	3003 (Fig 4)	1A	2	3	4	5	6	7	8	9	10	11	12	13	14	1A to 1V 1B to 1V 1C to 1V 1D to 1V 2A to 2V 2B to 2V 2C to 2V 2D to 2V	ns		
			IN	2.7 V	IN	2.7 V	2.7 V	2.7 V	OUT	640	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V			5.0 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V						
10 T _C = +125°C	t _{PHL}	3003 (Fig 4)	1A	2	3	4	5	6	7	8	9	10	11	12	13	14	1A to 1V 1B to 1V 1C to 1V 1D to 1V 2A to 2V 2B to 2V 2C to 2V 2D to 2V	ns		
			IN	2.7 V	IN	2.7 V	2.7 V	2.7 V	OUT	640	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V				
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V						
11	Same tests, terminal conditions, and limits as for subgroup 10, except T _C = -55°C.	3003 (Fig 4)	1A	2	3	4	5	6	7	8	9	10	11	12	13	14	1A to 1V 1B to 1V 1C to 1V 1D to 1V 2A to 2V 2B to 2V 2C to 2V 2D to 2V	ns		
			IN	2.7 V	IN	2.7 V	2.7 V	2.7 V	OUT	640	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V	2.7 V				
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
			2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN			2.7 V	
2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V	IN	2.7 V						

1/ For case 2, pins not referenced are WC.
2/ I_{IL} limits in μ A are as follows:

Measured terminal	Min/max limits for circuit			
	A	B	C	D
1A, 1B, 1C, 1D	-160/-400	-30/-300	-160/-400	-150/-380
2A, 2B, 2C, 2D	-160/-400	-30/-300	-160/-400	-120/-360

TABLE III. Group A Inspection for device type 09.
Terminal conditions (pins not designated may be HIGH ≥ 2.0 V or LOW ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883C method	Cases (A, B, C, D, Case 1/2)														Limits				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Unit			
1 $T_C = +25^\circ\text{C}$	I_{OH}	3006	1	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	Y	2.5	V		
			2	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			3	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			4	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			5	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			6	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			7	0.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			8	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V				
			9	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	2.0 V	Y	0.4	V
			10	10																	
2	I_{VTC}		11	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	A	1.5	mA		
			12	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	B			
			13	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	C			
			14	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	D			
			15	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	E			
			16	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	F			
			17	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	G			
			18	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	-10 mA	H			
3	I_{IH1}	3010	18	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	A	20	μA		
			19	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	B				
			20	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	C				
			21	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	D				
			22	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	E				
			23	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	F				
			24	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	G				
			25	2.7 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	H				
			26	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	A	100	V	
			27	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	B			
4	I_{IL}	3009	34	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	A	2/	V		
			35	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	B				
			36	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	C				
			37	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	D				
			38	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	E				
			39	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	F				
			40	0.4 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	G				
			41	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	H				
			42	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	Y	3/	mA	
			43	3005															V _{CC}	0.5	V
44	3005															V _{CC}	1.1	V			

Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = +125^\circ\text{C}$ and V_{TC} tests are omitted.

Same tests, terminal conditions, and limits as for subgroup 1, except $T_C = -55^\circ\text{C}$ and V_{TC} tests are omitted.

4.4.5 Group E inspection. Group E inspection shall be in accordance with table V of method 5005 of MIL-STD-883 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Radiation hardness assurance exposure (method 1019 of MIL-STD-883) conditions: Total dose exposure circuit shown on figure 5.

4.5 Methods of inspection. Methods of inspection shall be specified as follows.

4.5.1 Voltage and current. All voltages given are referenced to the microcircuit ground terminal. Currents given are conventional and positive when flowing into the referenced terminal.

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-M-38510.

6. NOTES

6.1 Intended use. Microcircuits conforming to this specification are intended for original equipment design applications and logistic support of existing equipment.

6.2 Ordering data. The acquisition document should specify the following:

- a. Complete part number (see 1.2).
- b. Requirements for delivery of one copy of the quality conformance inspection data pertinent to the device inspection lot to be supplied with each shipment by the device manufacturer, if applicable.
- c. Requirements for certificate of compliance, if applicable.
- d. Requirements for notification of change of product or process to the contracting activity in addition to notification to qualifying activity, if applicable.
- e. Requirements for failure analysis (including required test condition of method 5003 of MIL-STD-883), corrective action, and reporting of results, if applicable.
- f. Requirements for product assurance options.
- g. Requirements for special lead lengths or lead forming, if applicable. These requirements shall not affect the part numbers. Unless otherwise specified, these requirements will not apply to direct purchase by or direct shipment to the Government.
- h. Requirements for "JAN" marking.

6.3 Abbreviations, symbols, and definitions. The abbreviations, symbols, and definitions used herein are defined in MIL-M-35810, MIL-STD-1331, and as follows:

GND	- - - - -	Ground zero voltage potential.
I _{IN}	- - - - -	Current flowing into an input terminal.
V _{IC}	- - - - -	Input clamp voltage
V _{IN}	- - - - -	Voltage level at an input terminal.

6.4 Logistic support. Lead materials and finishes (see 3.3) are interchangeable. Unless otherwise specified, microcircuits acquired for Government logistic support will be acquired to device class B (see 1.2.2), lead material for finish C (see 3.3). Longer length leads and lead forming shall not affect the part number.

6.5 Substitutability. The cross-reference information below is presented for the convenience of users. Microcircuits covered by this specification will functionally replace the listed generic-industry type. Generic-industry microcircuit types may not have equivalent operational performance characteristics across military temperature ranges or reliability factors equivalent to MIL-M-35810 device types and may have slight physical variations in relation to case size. The presence of this information shall not be deemed as permitting substitution of generic-industry types for MIL-M-35810 types or as a waiver of any of the provisions of MIL-M-35810.

<u>Military device type</u>	<u>Generic-industry type</u>
01	54LS00
02	54LS03
03	54LS04
04	54LS05
05	54LS10
06	54LS12
07	54LS20
08	54LS22
09	54LS30

6.6 Manufacturers' designations. Manufacturers' circuits which form a part of this specification are designated with an "X" as shown in table IV herein.

TABLE IV. Manufacturers' designations.

Circuits						
Device types	A	B	C	D	E	F
	Texas Instruments	Signetics Corp.	National Company	Raytheon Company	Motorola Inc.	Fairchild Semiconductor
01	X	X	X	X	X	X
02	X	X	X	X	X	X
03	X	X	X	X	X	X
04	X	X	X	X	X	X
05	X	X	X	X	X	X
06	X	X	X	X	X	
07	X	X	X	X	X	X
08	X	X	X	X	X	X
09	X	X	X	X	X	X

6.7 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

Custodians:

Army - ER
Navy - EC
Air Force - 17

Review activities:

Army - AR, MI
Navy - OS, SH, TD
Air Force - 11, 19, 85, 99
DLA - ES

User activities:

Army - SM
Navy - AS, CG, MC

Preparing activity:

Air Force - 17

Agent:

DLA - ES

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