

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY FOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THEREBY.

3 1229001

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
	TAKEN FROM DRAWING C-87948	7-19-62	
A	REVISED PER TDRR 00064	10-5-62	
B	REVISED PER TDRR 00081	10-23-62	
C	REVISED & REDRAWN PER TDRRR 00190	12-20-62	WK
D	ADDED PROCUREMENT NOTE 12 PER TDRR 00445	2-2-63	WK
E	REPLACED WITH CHANGE BY REV F PER TDRR 00513		WK

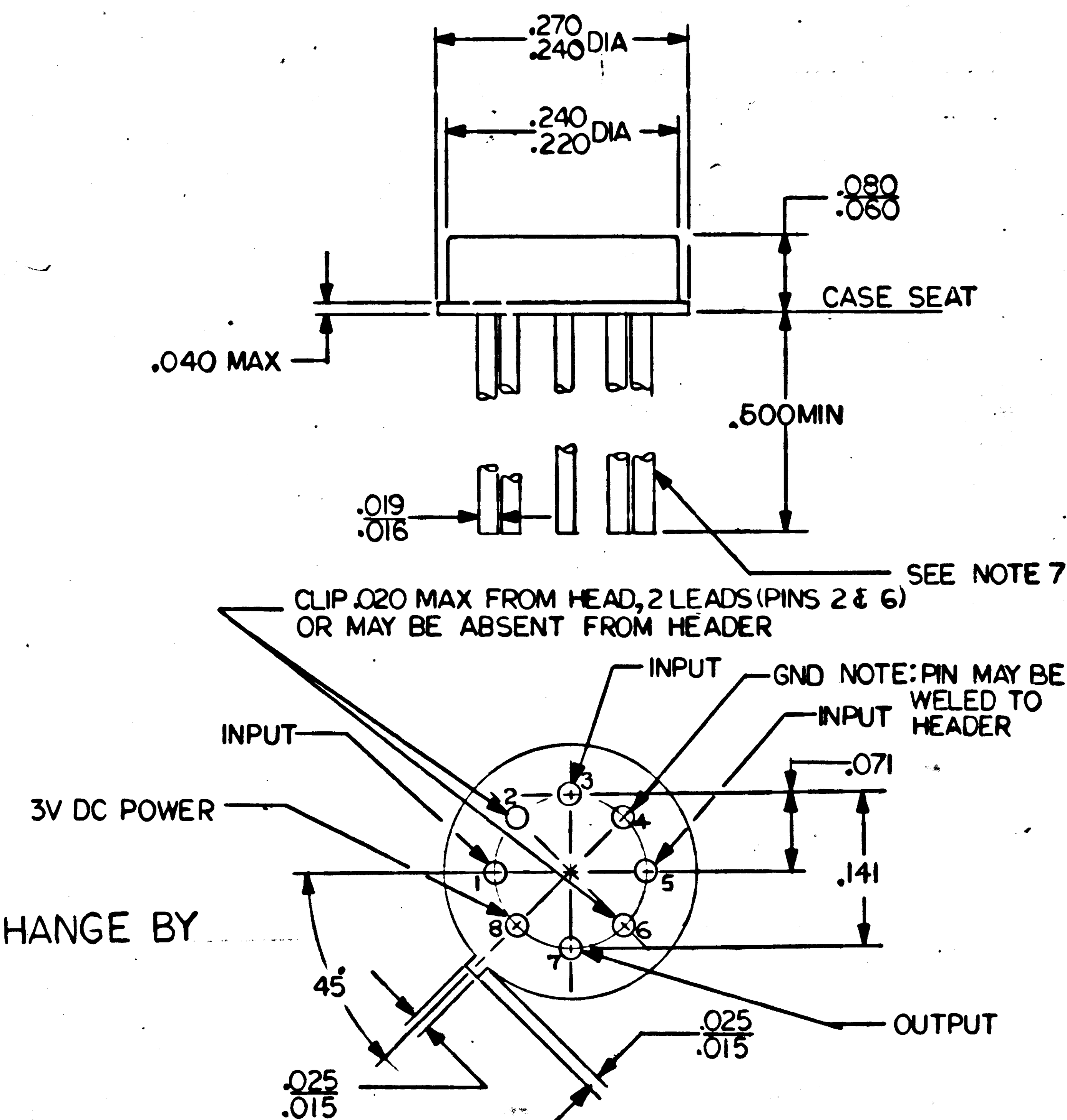
GENERAL REQUIREMENTS:

1. UNITS SHALL MEET THE GENERAL REQUIREMENTS OF MIL-S-19500 FOR MATERIALS, QUALITY & WORKMANSHIP.
2. THE SPECIFIED LEAD DIAMETER APPLIES TO THE ZONE BETWEEN .050 AND .250 FROM THE CASE SEAT. BETWEEN .250 AND THE END OF LEAD A MAXIMUM OF .021 IS HELD. OUTSIDE OF THESE ZONES THE LEAD DIAMETER IS NOT CONTROLLED.
3. MAXIMUM DIAMETER LEADS AT A GAGING PLANE .054 ± .001 BELOW CASE SEAT TO BE WITHIN .007 OF THEIR TRUE LOCATION RELATIVE TO MAX. WIDTH TAB AND TO THE MAXIMUM .270 DIAMETER MEASURED WITH A SUITABLE GAGE. WHEN GAGE IS NOT USED, MEASUREMENT WILL BE MADE AT SEATING PLANE.
4. INDEX TAB FOR VISUAL ORIENTATION ONLY.
5. MEASURED FROM MAX. DIAMETER OF THE ACTUAL DEVICE.
6. LEAD MATERIAL: GOLD PLATED IRON-NICKEL-COBALT-ALLOY IN ACCORDANCE WITH ND1015402.
7. PIN 4 ELECTRICALLY CONNECTED TO CASE.
8. D.C. RESISTANCE BETWEEN PIN 7 & 8 SHALL BE 530 OHMS MIN.
9. AVERAGE PROPAGATION DELAY SHALL BE 35 NANSECONDS MAX. AND SHALL BE MEASURED AS ILLUSTRATED ON SHEET 2.
10. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
11. UNIT SHALL BE ELECTRICALLY TESTED IN ACCORDANCE WITH TABLE I.
- 12.

- A WAIVE AS REQUIRED ALL INFORMATION PRESENTED ON THIS DRAWING EXCEPT LEAD MATERIAL SPEC. & PHYSICAL DIMENSIONS.
- B UPON SPECIFIC INSTRUCTION BY (TD) TECHNICAL DIRECTIVE PROCURE THIS PART AS CHANGE LETTER D BY ORDERING TO VENDOR CATALOG NO. & SPECIFICATIONS. REFERENCE NO 1002034.
- C DISREGARD THIS NOTE IN ITS ENTIRETY IF REFERENCE IS MADE TO THIS DRAWING BY OTHER THAN REVISION LETTER D.

PROCURE ONLY FROM APPROVED SOURCES LISTED ON ND 1002034 FOR THIS DRAWING.

REPLACED WITH CHANGE BY REV F



FOR INFORMATION ONLY

CLASS B RELEASE TDR No. 00027 DATE 9/3/62

REVE	REVD
REV D	REV D
REV C	REV C
REV B	
REV A	
SHEET 1	SHEET 2
REVISION STATUS OF SHEETS	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON		
FRACTIONS	DECIMALS	ANGLES
±	±	±
DO NOT SCALE THIS DRAWING		
MATERIAL		
HEAT TREATMENT		
FINAL FINISH		
NEXT ASSY	USED ON	
APPLICATION		

QTY REQD		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		FIND NO.			
LIST OF MATERIALS									
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.				MANNED SPACECRAFT CENTER HOUSTON, TEXAS					
DWG. NO.				CONTRACT					
DRAWN <i>[Signature]</i> DATE 12-10-62				MICRO NOR GATE (TO 47 SIZE) SPECIFICATION CONTROL DWG.					
CHECKED <i>[Signature]</i> DATE 12-10-62									
APPROVAL <i>[Signature]</i> DATE 12-10-62									
APPROVAL <i>[Signature]</i> DATE 12-10-62									
NASA APPROVAL <i>[Signature]</i> 12-20-62				CODE IDENT NO.		SIZE		NASA DRAWING NO.	
						C		1006771	
MIT APPROVAL <i>[Signature]</i> DATE 12-20-62				SCALE <i>1/4"</i>		WT <i>1/4"</i>		SHEET 1 OF 2	

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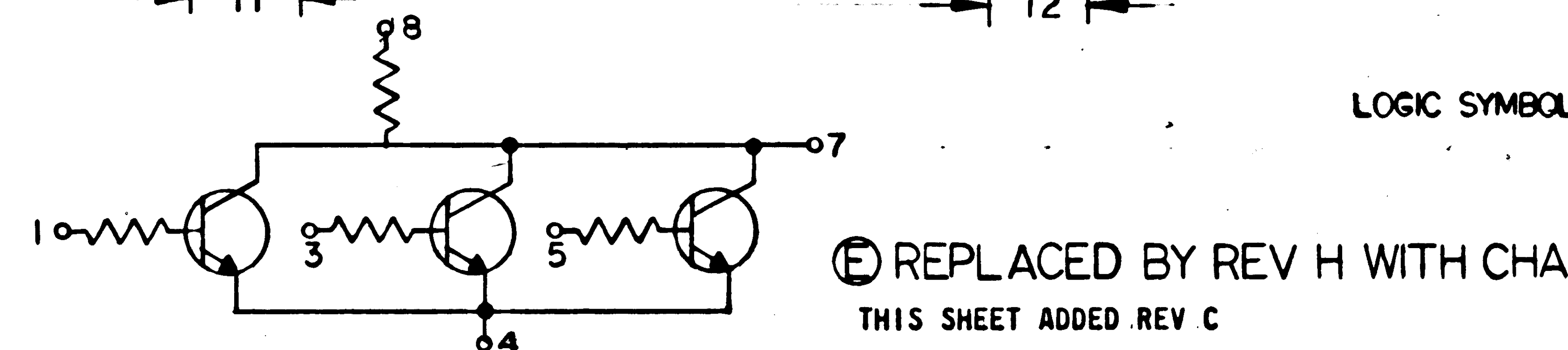
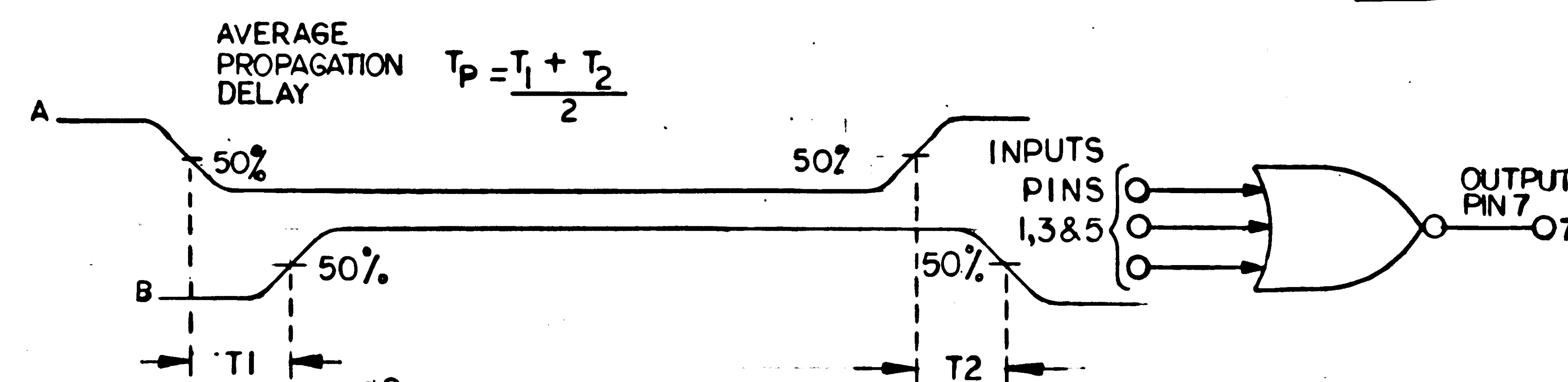
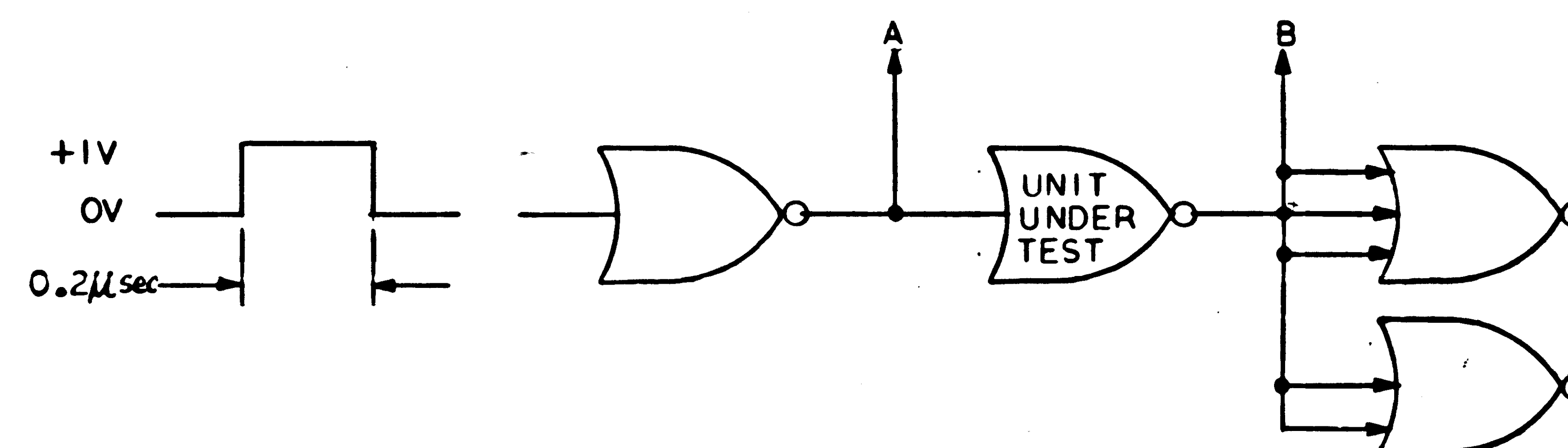
REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
C	REVISED & REDRAWN PER TDRR SHEET 2 ADDED 00190	10-28-62	WK
D	REVISED PER TDRR 00445	2-20-63	WK
E	REPLACED BY REV H WITH CHANGES PER TDRR 00562	3-13-63	WK

TABLE I DESIGN PARAMETERS 25±1% AMBIENT (UNLESS OTHERWISE SPECIFIED)								
PARAMETER	CONDITIONS AT PINS						MIN	MAX
	1	3	4	5	7	8		
BASE CURRENT I_1	785±2MV	785±10MV	GND	785±10MV		+3.0V		.350 ma
BASE CURRENT I_2	785±10MV	785±2MV		785±10MV				.350 ma
BASE CURRENT I_3	785±10MV	785±10MV		785±2MV				.350 ma
OUTPUT VOLTAGE PIN 7	785±2MV	OPEN		OPEN	V_o			.350V
OUTPUT VOLTAGE PIN 7	OPEN	785±2MV		OPEN	V_o			.350V
OUTPUT VOLTAGE PIN 7	OPEN	OPEN		785±2MV	V_o			.350V
OUTPUT CURRENT AT PIN 7	540±2MV	540±2MV		540±2MV	785MV		3.00 ma	
SATURATION VOLTAGE	1.20V±10MV	OPEN		OPEN	V_s			.300V
SATURATION VOLTAGE	OPEN	1.20V±10MV		OPEN	V_s			.300V
SATURATION VOLTAGE	OPEN	OPEN		1.20V±10MV	V_s	+3.0V		.300V
LEAKAGE CURRENT I_{CE0}	OPEN	OPEN	GND	OPEN	5.0V	OPEN		100 MICRO AMPS
EMITTER BASE REVERSE CURRENT I_{EB0}	GND	GND	5.0V	GND	OPEN	OPEN		1 ma
COLLECTOR CUTOFF CURRENT I_{CB0}	GND	GND	OPEN	GND	8.0V	OPEN		1 ma

TABLE II MAXIMUM RATINGS AT 25°C	
MAXIMUM VOLTAGE TO PIN 8	+8.0 VOLTS
MAXIMUM VOLTAGE APPLIED TO ANY INPUT PIN	±4.0 VOLTS
STORAGE TEMPERATURE	-65°C TO + 200°C
OPERATING TEMPERATURE	0 TO 70°C
FAN OUT OF 5 WITH FAN IN OF 3	0 TO 70°C
NOMINAL DISSIPATED POWER PER UNIT	15 MW

FOR INFORMATION ONLY

CLASS B RELEASE TDR No. 00027 DATE 9/1/62



MASTER

QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIND NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>W. J. Hall</i> DATE 12-19-62 CHECKED <i>W. J. Hall</i> DATE 12-20-62 APPROVAL <i>W. J. Hall</i> DATE 12-20-62		MICRO-NOR GATE (TO 47 SIZE) SPECIFICATION CONTROL DRAWING	
NASA APPROVAL <i>W. J. Hall</i> DATE 12-20-62 MIT APPROVAL <i>W. J. Hall</i> DATE 12-20-62		CODE IDENT NO. SIZE C	NASA DRAWING NO. 1006771
		SCALE NONE WT	SHEET 2 OF 2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	FRACTIONS DECIMALS ANGLES
DO NOT SCALE THIS DRAWING	± ± ±
MATERIAL	
HEAT TREATMENT	
FINAL FINISH	
NEXT ASSY	USED ON
APPLICATION	

INCHES
0 1 2
PHOTOGRAPHIC SCALE ONLY