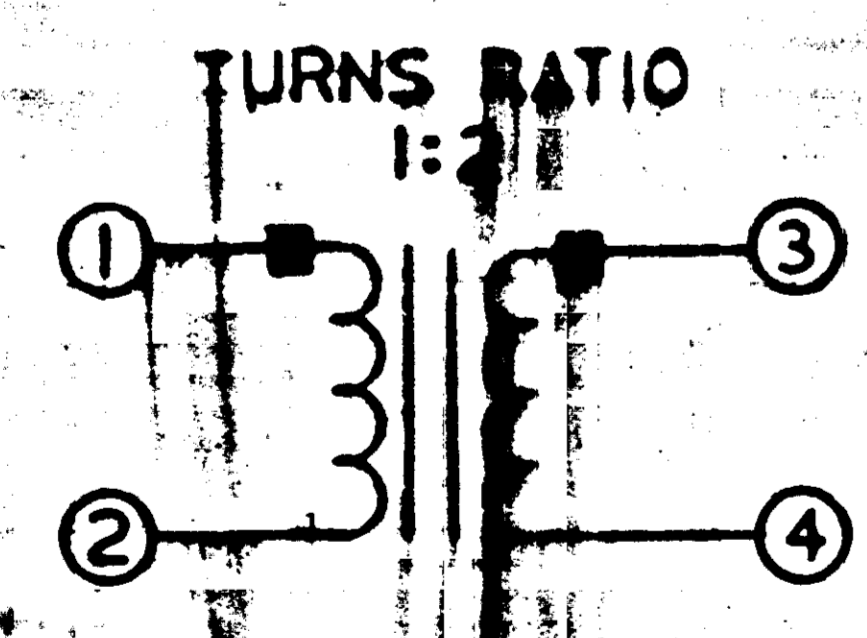
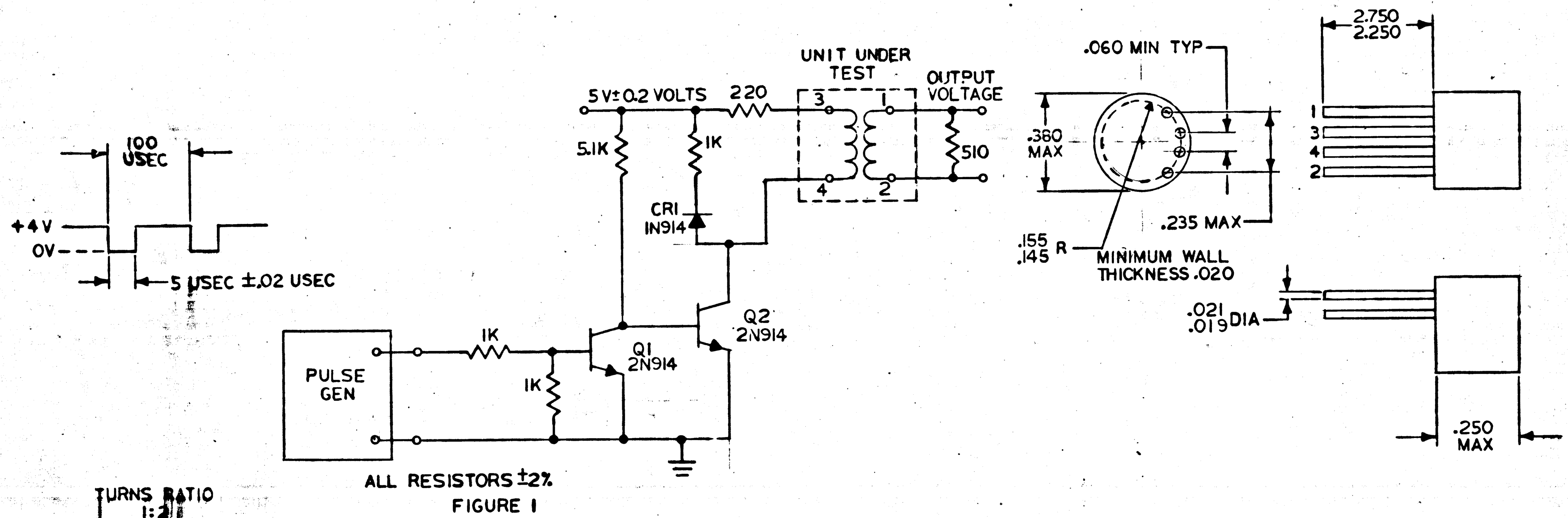


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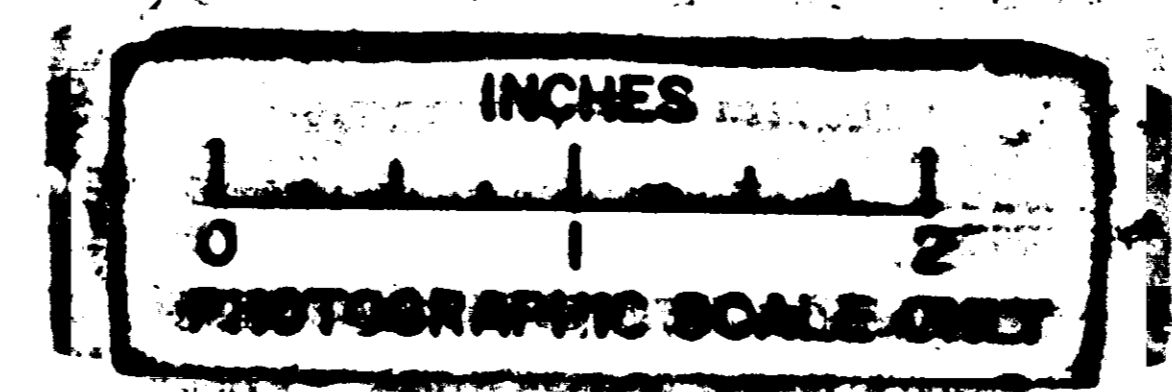
1006293

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER TDRR	12906	WL



ALL RESISTORS ±2%  
FIGURE 1

QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIN NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>R.F. Wood</i> DATE <i>150004</i>		<b>TRANSFORMER, PULSE</b>	
CHECKED <i>A. M. Smith</i> 9-16-54			
APPROVAL <i>Edna Ch...</i> 9-18-54			
APPROVAL <i>Edna Ch...</i> 9/21/54		SPECIFICATION CONTROL DRAWING	
HEAT TREATMENT _____		NASA APPROVAL <i>W.D. Rhine</i>	CODE IDENT NO. _____
FINAL FINISH _____		MIT APPROVAL <i>W.D. Rhine</i>	SIZE <b>C</b>
NEXT ASSY _____	USED ON _____	NASA DRAWING NO. <b>1006293</b>	SCALE NONE
APPLICATION _____		WT _____	SHEET 1 OF 2



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1006293

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER DRR	12 8 66	WK

REQUIREMENTS:

1. GENERAL:

- A. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- B. SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404, CLASS 2.
- C. UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS OF ND 1002047.
- D. UNITS SHALL MEET THE APPLICABLE REQUIREMENTS OF MIL-T-21038, GRADE 7, CLASS R, LIFE EXPECTANCY X WITH THE EXCEPTIONS AND ADDITIONS SPECIFIED HEREIN. QUALIFICATION APPROVAL NOT REQ'D.

- (a) PULSE DURATION: 5 MICROSECONDS ±.02 USEC
- (b) PEAK PULSE AMPLITUDE: 2.0 VOLTS MINIMUM.
- (c) DROOP: 40% MIN. AT 5.0 MICROSECONDS 60% MAX.
- (d) PULSE RISE TIME: 0.1 MICROSECOND MAXIMUM.
- (e) PULSE DECAY TIME: 0.1 MICROSECOND MAXIMUM.
- (f) OVER SHOOT N/A

2. INSPECTION AND ACCEPTANCE: (100% UNLESS OTHERWISE SPECIFIED)

A. MECHANICAL REQUIREMENTS:

- (1) LEADS SHALL BE IN ACCORDANCE WITH ND 1015400. A CERTIFICATE OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.
- (2) COLOR SHALL BE RED
- (3) MARKING: UNITS SHALL BE MARKED IN ACCORDANCE WITH ND 1002019 WITH THE MANUFACTURER'S NAME OR SYMBOL, PART NUMBER, DASH NO., LEAD IDENTIFICATION, NASA DRAWING NUMBER AND REVISION LETTER.

B. ELECTRICAL REQUIREMENTS: APPLICABLE PARAMETERS SHALL BE MEASURED USING A BOONTON 260A Q-METER OR EQUIVALEN.

- (1) PRIMARY INDUCTANCE (L<sub>p</sub>): 1.7 MH ± 20%, MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 OPEN. INPUT CAPACITANCE WILL BE ACCOUNTED FOR IN MEASUREMENT.
- (2) LEAKAGE INDUCTANCE (L<sub>L</sub>) 2.3 UH MAXIMUM, MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 SHORT CIRCUITED
- (3) COUPLING CAPACITANCE (C<sub>c</sub>): 20. UUF MAXIMUM, MEASURED BY SHORTING TERMINALS 1-2 AND TERMINALS 3-4 AND MEASURING THE CAPACITANCE BETWEEN THEM.
- (4) INPUT CAPACITANCE (C<sub>i</sub>): 8.0 UUF MAXIMUM MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 OPEN.
- (5) WORKING VOLTAGE: 50 VOLTS MINIMUM AT 105°C.
- (6) DC RESISTANCE:
  - (a) TERMINALS 1-2: 1.4 OHMS MAXIMUM.
  - (b) TERMINALS 3-4: 2.7 OHMS MAXIMUM.
- (7) TURNS RATIO: 1 TO 2. ±3%
- (8) WAVEFORM: FIGURE 1 WILL REPLACE THE TEST CIRCUIT, FIGURE 4 OF MIL-T-21038B. THE INPUT PULSE TRAIN SHALL HAVE A PULSE REPETITION RATE OF 10K CPS ± 10% AND THE PULSE WIDTH SHALL BE 5 MICROSECONDS ±.02 USEC PULSE DEFINITION AND MEASUREMENTS SHALL BE IN ACCORDANCE WITH PARAGRAPHS 3.12 AND 4.8.8 RESPECTIVELY OF MIL-T-21038B. THE TRANSFORMER OUTPUT SHALL MEET THE FOLLOWING SPECIFICATIONS MEASURED AT STANDARD CONDITIONS EXCEPT AS OTHERWISE SPECIFIED: THIS TEST SHALL BE PERFORMED ON A 5% SAMPLE OF EACH SHIPMENT WITH NO FAILURES ALLOWED.

3. DESIGN REQUIREMENTS:

- A. POWER RATING: 0.3 WATT AT 25°C DERATED LINEARLY TO .05 WATT AT 105°C.
- B. DIELECTRIC WITHSTANDING VOLTAGE AT REDUCE BAROMETRIC PRESSURE: IN ACCORDANCE WITH PARAGRAPH 4.8.4.2 OF MIL-T-21038B. TEST CONDITION E IN METHOD 105 OF MIL-STD-202 SHALL APPLY.
- C. UNITS SHALL BE ENCAPSULATED.
- D. WIRE SIZE: AWG 41 OR LARGER.
- E. OPERATING TEMPERATURE RANGE: 20°C TO 105°C.

4. SPECIAL CONDITIONING (BY MANUFACTURER): 100%

TRANSFORMER SHALL BE TEMPERATURE CYCLED FOR 5 CYCLES PER MIL-STD-202 METHOD 102 EXCEPT THAT THE TEMPERATURES SHALL BE -55°C +25°C AND +105°C AND EXPOSURE TIME SHALL BE 15 MINUTES AT EACH TEMPERATURE. DURING THE LAST CYCLE THE UNIT SHALL BE TESTED FOR CONTINUITY AT EACH OF THE AMBIENT CONDITIONS. AFTER STABILIZATION AT ROOM TEMPERATURE UNIT SHALL PASS NORMAL INSPECTION TESTS.

PROCURE ONLY FROM APPROVED SOURCES LISTED IN ND1002034 FOR THIS DRAWING

POSTER

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>J. F. Felt</i> DATE <i>15 Oct 64</i>		TRANSFORMER, PULSE	
CHECKED <i>A. Marts</i> <i>9-16-64</i>		SPECIFICATION CONTROL DRAWING	
APPROVAL <i>Ed. S. ...</i> <i>1-18-64</i>		CODE IDENT NO.	NASA DRAWING NO.
APPROVAL <i>Ed. S. ...</i> <i>9/22/64</i>		SIZE	1006293
NASA APPROVAL <i>W. J. ...</i> <i>9-22-64</i>		SCALE	SHEET 2 OF 2
MIT APPROVAL <i>W. J. ...</i> <i>12/22/64</i>		WT	

