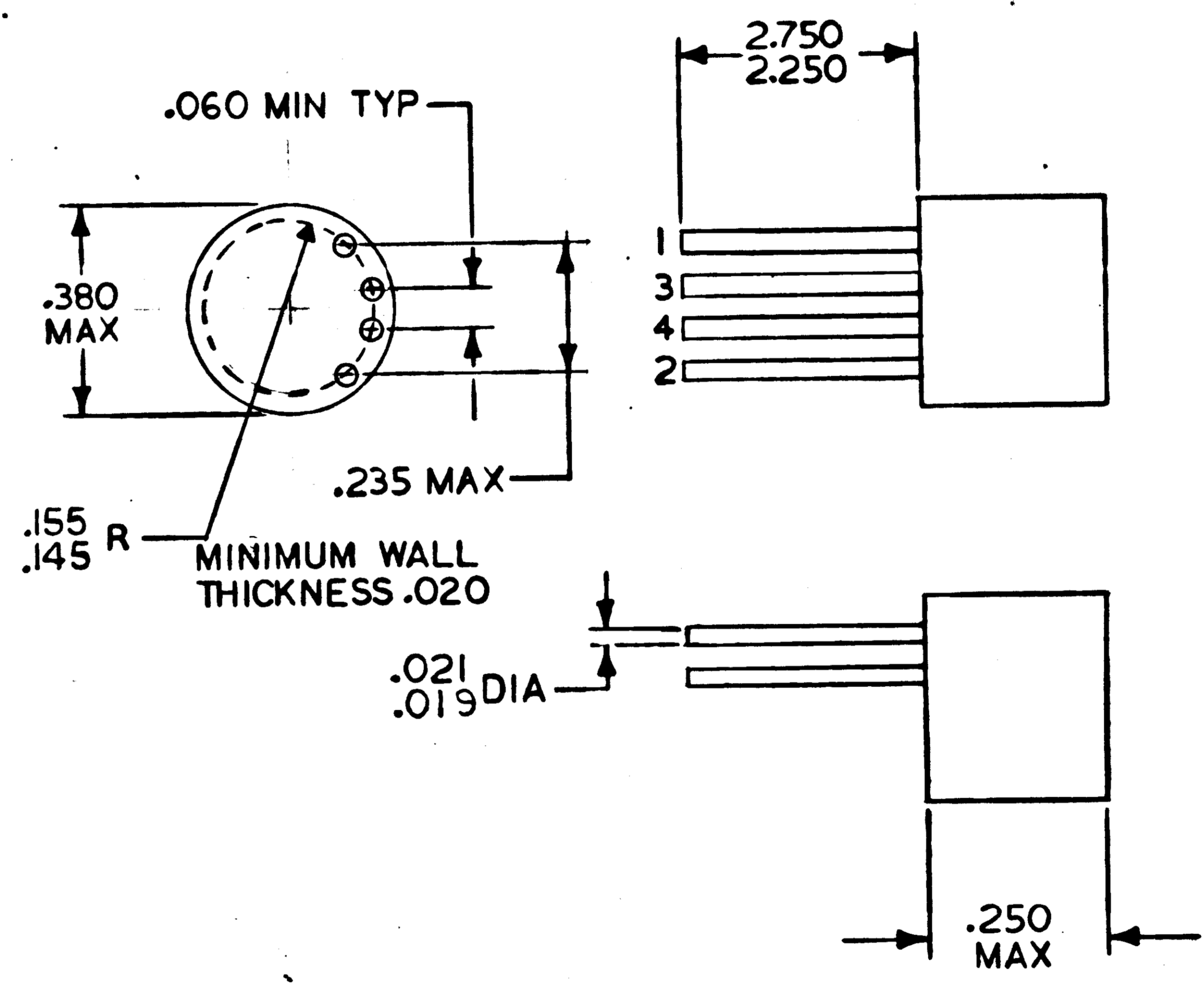
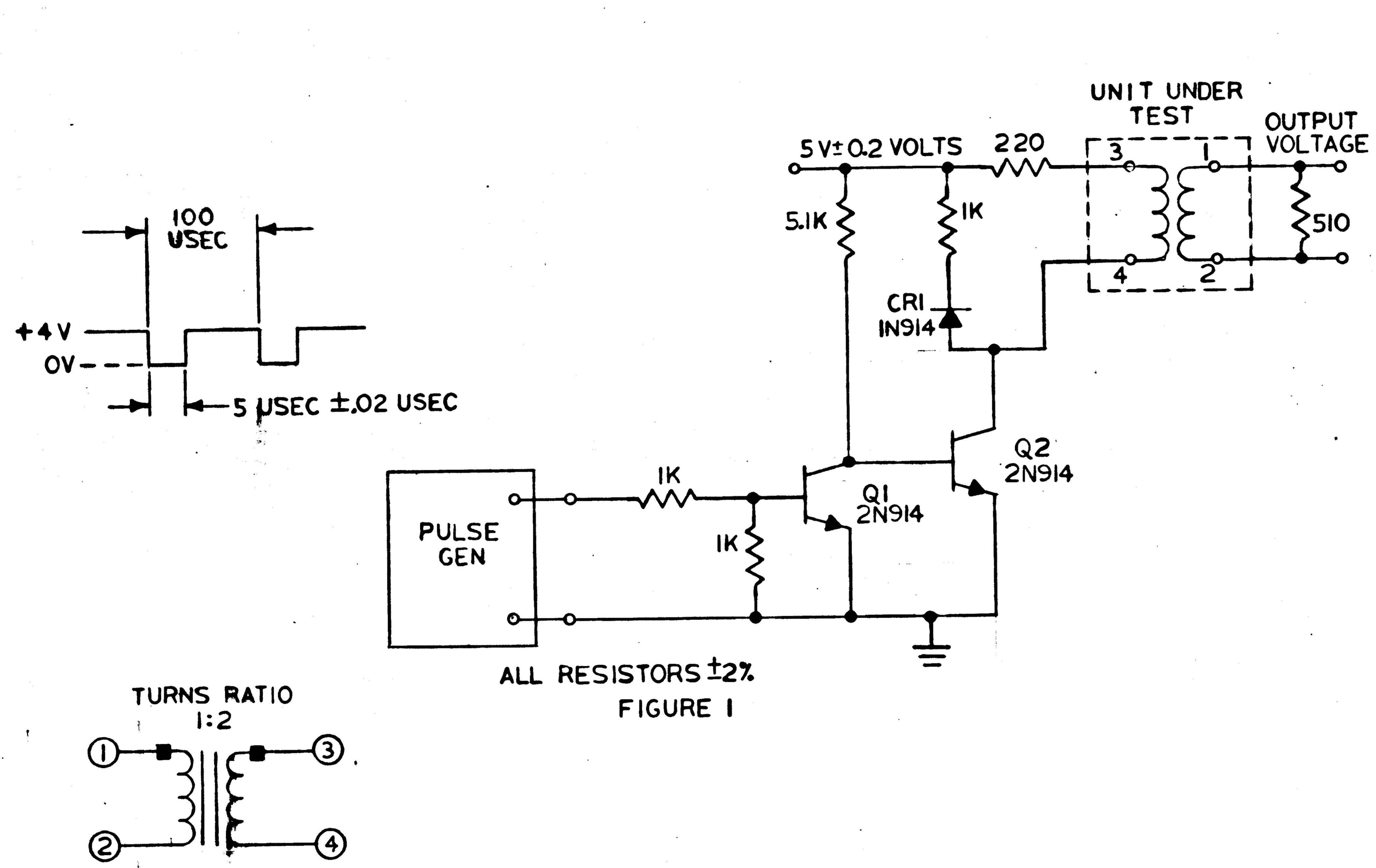


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1006293

| REVISIONS |  |         |          |
|-----------|--|---------|----------|
| SYM       | DESCRIPTION                            | DATE    | APPROVAL |
| -         | INITIAL RELEASE CLASS A PER TDRR 12806 | 9-22-69 | WK       |
| A         | REVISED PER TDRR 18267                 | 4/2/65  | WK       |



MASTER

| QTY REQD  | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION                | FIND NO. |
|---|-------------------------|--|----------|
| LIST OF MATERIALS                                     |                         |  |          |
| MIT INSTRUMENTATION LAB<br>CAMBRIDGE, MASS.           |                         | MANNED SPACECRAFT CENTER<br>HOUSTON, TEXAS |          |
| DRAWN <i>R. F. White</i> DATE <i>15 Oct 64</i>        |                         | TRANSFORMER, PULSE                         |          |
| CHECKED <i>A. M. White</i> DATE <i>9-16-64</i>        |                         | SPECIFICATION CONTROL DRAWING              |          |
| APPROVAL <i>E. J. White</i> DATE <i>9-18-64</i>       |                         | NASA DRAWING NO. 1006293                   |          |
| NASA APPROVAL <i>W. J. Rhoads</i> DATE <i>9-22-64</i> |                         | CODE IDENT NO. 80230                       | SIZE C   |
| MIT APPROVAL <i>W. J. Rhoads</i> DATE <i>9-22-64</i>  |                         | SCALE NONE                                 | WT       |
| APPLICATION   |                         | SHEET 1 OF 2                               |          |

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|-----------|--|---------|----------|
| SYM       | DESCRIPTION                            | DATE    | APPROVAL |
| -         | INITIAL RELEASE CLASS A PER TDRR 12806 | 9-22-64 | Wk       |
| A         | REVISED PER TDRR 18267                 | 9/21/64 | 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

(9) DIELECTRIC WITHSTANDING VOLTAGE AT ATMOSPHERE PRESSURE (AT 28 TO 32 INCHES OF MERCURY): IN ACCORDANCE WITH PARAGRAPH 4.8.4.1 OF MIL-T-21038B. TEST BETWEEN PIN 1 AND PIN 3.

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. GOTHIC DEMIBOLD STYLE IS PERMISSIBLE

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

- (1) PRIMARY INDUCTANCE ( $L_p$ ): 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 ( $L_L$ ): 2.3 UH MAXIMUM, MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 SHORT CIRCUITED
- (3) COUPLING CAPACITANCE ( $C_C$ ): 20. UUF MAXIMUM, MEASURED BY SHORTING TERMINALS 1-2 AND TERMINALS 3-4 AND MEASURING THE CAPACITANCE BETWEEN THEM.
- (4) INPUT CAPACITANCE ( $C_I$ ): 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%

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%

EACH UNIT SHALL BE TEMP. CYCLED BY VENDOR PRIOR TO INSPECTION AND ACCEPTANCE. THE TEST SHALL BE FIVE (5) CYCLES, ONE (1) CYCLE CONSISTING OF THE FOLLOWING: 125°C FOR 30 MIN., 25°C FOR MAX. OF 10 MIN., MINUS 55°C FOR 30 MIN., AND 25°C FOR MAX. OF 10 MIN. DURING THE 5TH CYCLE THE UNIT SHALL BE MONITORED FOR CONTINUITY.

PROCURE ONLY FROM APPROVED SOURCES LISTED IN ND1002034 FOR THIS DRAWING

BOONTON

|  |   |  |
|--|---|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES    | MIT INSTRUMENTATION LAB<br>CAMBRIDGE, MASS.   | MANNED SPACECRAFT CENTER<br>HOUSTON, TEXAS |
| TOLERANCES ON FRACTIONS DECIMALS ANGLES<br>± — ± — ± — | DATE 1/20/64<br>DRAWN J. F. Walsh<br>CHECKED A. Marts 9-16-64<br>APPROVAL [Signature] 1-18-64<br>APPROVAL [Signature] 9/21/64 | TRANSFORMER, PULSE                         |
| DO NOT SCALE THIS DRAWING                              | NASA APPROVAL [Signature] 9-22-64<br>MIT APPROVAL [Signature] 12/22/64  | SPECIFICATION CONTROL DRAWING              |
| MATERIAL   | CODE IDENT NO. 80230<br>SIZE C  | NASA DRAWING NO. 1006293                   |
| HEAT TREATMENT   | SCALE NONE  | WT   |
| FINAL FINISH   |   | SHEET 2 OF 2                               |
| NEXT ASSY USED ON APPLICATION                          |   |  |

| QTY REQD                                    | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION | FIND NO.     |
|---|-------------------------|-----------------------------|--------------|
| LIST OF MATERIALS                           |                         |                             |              |
| MIT INSTRUMENTATION LAB<br>CAMBRIDGE, MASS. |                         |                             |              |
| MANNED SPACECRAFT CENTER<br>HOUSTON, TEXAS  |                         |                             |              |
| TRANSFORMER, PULSE                          |                         |                             |              |
| SPECIFICATION CONTROL DRAWING               |                         |                             |              |
| NASA APPROVAL [Signature] 9-22-64           |                         | CODE IDENT NO. 80230        | SIZE C       |
| MIT APPROVAL [Signature] 12/22/64           |                         | SCALE NONE                  | WT           |
|   |                         |                             | SHEET 2 OF 2 |

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