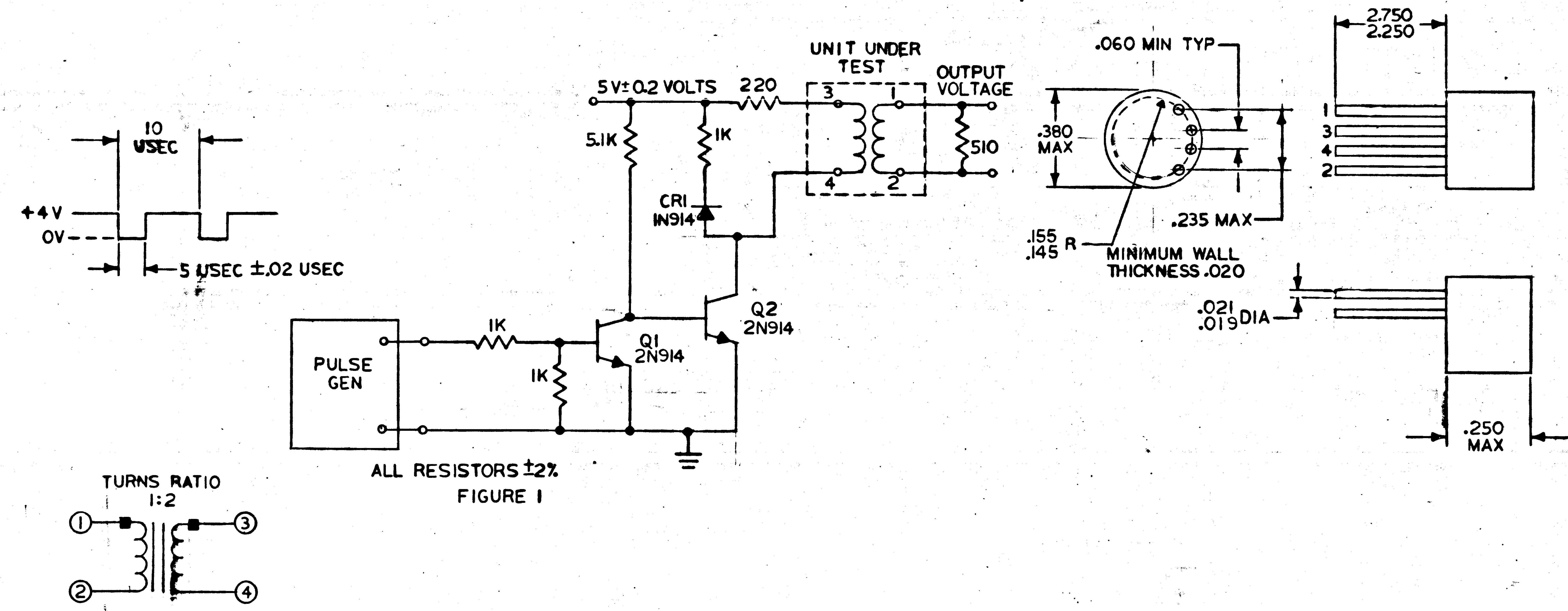


NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT 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 THERETO.

B 1006293

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER TDRR 12906	1-22-64	WK
A	REVISED PER TDRR 18267	4/15/65	WK
B	REVISED PER TDRR 22759	10/15/65	WK



MASTER

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON	
FRACTIONS	DECIMALS
±	±
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	
DRAWN <i>W. J. Rhine</i> DATE <i>1-22-64</i>		TRANSFORMER, PULSE	
CHECKED <i>A. M. Smith</i> 9-16-64		SPECIFICATION CONTROL DRAWING	
APPROVAL <i>W. J. Rhine</i> 1-22-64		CODE IDENT NO. 80230	
APPROVAL <i>W. J. Rhine</i> 7/21/64		SIZE C	
NASA APPROVAL <i>W. J. Rhine</i> 9-22-64		NASA DRAWING NO. 1006293	
MIT APPROVAL <i>W. J. Rhine</i> 7/21/64		SCALE NONE	
		SHEET 1 OF 2	



NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A SPECIFICALLY 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 THERETO.

#### REQUIREMENTS:

##### 1. GENERAL:

- INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404, CLASS 2.
- UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS OF ND 1002047.
- 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.
- PREPARATION FOR DELIVERY SHALL BE IN ACCORDANCE WITH ND1002215 CLASS 1 CODE 1
  - MARKING OF SHIPPING CONTAINERS SHALL CONFORM TO THE MARKING OF UNIT AND INTERMEDIATE PACKAGES AND THE METHODS OF MARKING AS SPECIFIED IN ND 1002215

UNIT NO. 1002047

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.

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

###### A. MECHANICAL REQUIREMENTS:

- DIMENSIONS AND PART MARKING: AS DELINEATED HEREIN.
- LEADS SHALL BE UNCOATED ANNEALED NICKEL IN ACCORDANCE WITH ND1015400. A CERTIFICATE OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.

###### (3) COLOR SHALL BE RED

- 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

- PRIMARY INDUCTANCE ( $L_p$ ): 1.7 MH  $\pm$  20%, MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 OPEN. INPUT CAPACITANCE WILL BE ACCOUNTED FOR IN MEASUREMENT.
- LEAKAGE INDUCTANCE ( $L_L$ ): 2.3 UH MAXIMUM, MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 SHORT CIRCUITED
- COUPLING CAPACITANCE ( $C_C$ ): 20. UUF MAXIMUM, MEASURED BY SHORTING TERMINALS 1-2 AND TERMINALS 3-4 AND MEASURING THE CAPACITANCE BETWEEN THEM.
- INPUT CAPACITANCE ( $C_I$ ): 8.0 UUF MAXIMUM MEASURED AT TERMINALS 3-4 WITH TERMINALS 1-2 OPEN.
- WORKING VOLTAGE: 50 VOLTS MINIMUM AT 105°C.
- DC RESISTANCE:
  - TERMINALS 1-2: 1.4 OHMS MAXIMUM.
  - TERMINALS 3-4: 2.7 OHMS MAXIMUM.
- TURNS RATIO: 1 TO 2.  $\pm$  3%
- 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 100K CPS  $\pm$  10% AND THE PULSE WIDTH SHALL BE 5 MICROSECONDS  $\pm$  0.2 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.

PROCURE ONLY FROM APPROVED SOURCES LISTED IN ND1002034 FOR THIS DRAWING

MASTER

- PULSE DURATION: SHALL BE 5 usec  $\pm$  .05 usec MEASURED FROM .1E<sub>1</sub> TO .1E<sub>2</sub>
- PEAK PULSE AMPLITUDE: 2.0 VOLTS MINIMUM. (E)
- DROOP: 40% MIN. AT 5.0 MICROSECONDS 60% MAX.
- PULSE RISE TIME: 0.1 MICROSECOND MAXIMUM.
- PULSE DECAY TIME: 0.1 MICROSECOND MAXIMUM.
- OVER SHOOT N/A

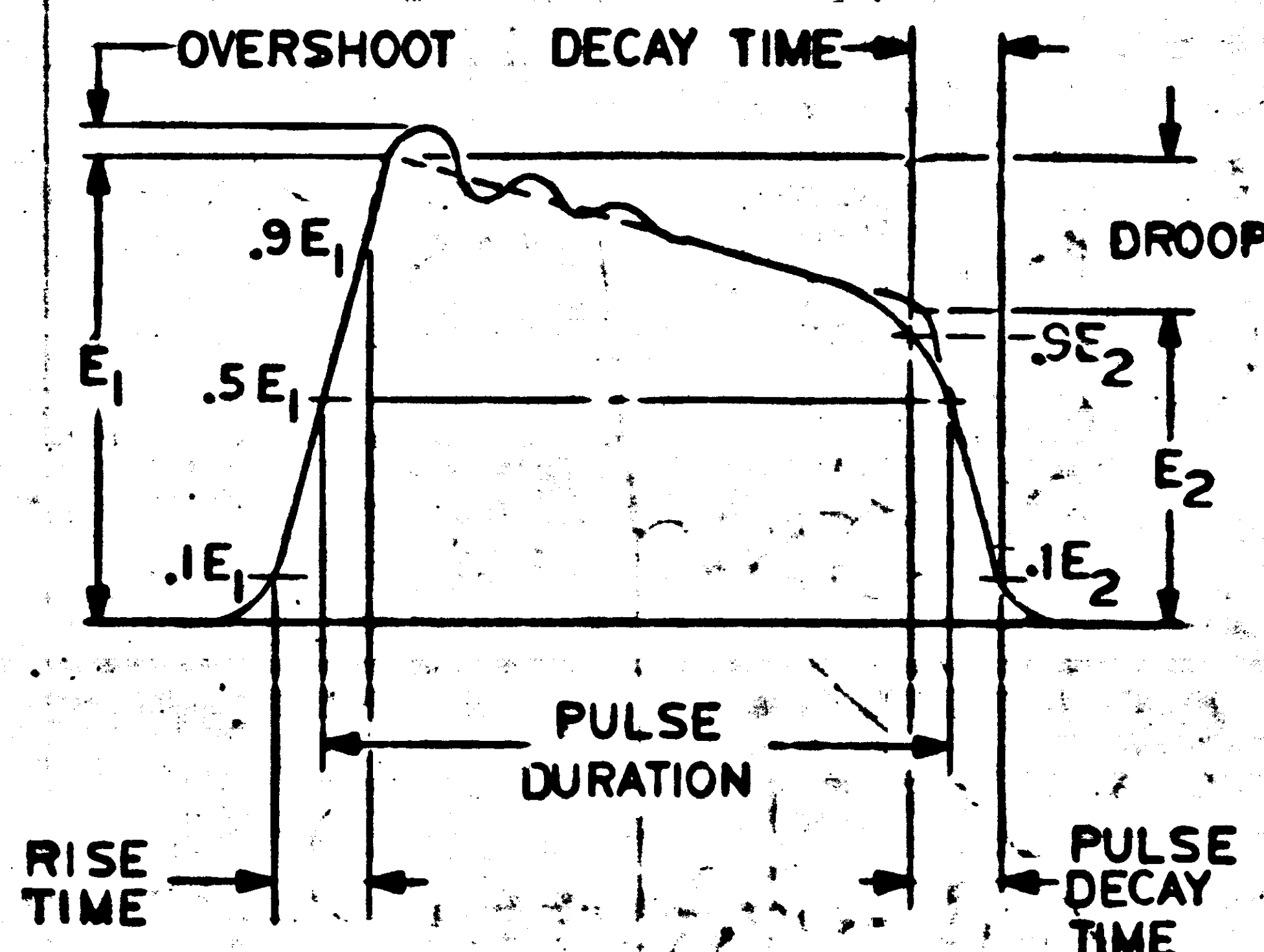
- DIELECTRIC WITHSTANDING VOLTAGE AT ATMOSPHERE PRESSURE (AT 28 TO 32 INCHES OF MERCURY): IN ACCORDANCE WITH PARAGRAPH 4.8.4.1 OF MIL-T-21038B. TEST BETWEEN PIN 1 AND PIN 3.

##### 3. DESIGN REQUIREMENTS:

- POWER RATING: 0.3 WATT AT 25°C DERATED LINEARLY TO .05 WATT AT 105°C.
- 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.
- UNITS SHALL BE ENCAPSULATED.
- WIRE SIZE: AWG 41 OR LARGER.
- 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.



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. H. H.</i> DATE <i>1/20/64</i> CHECKED <i>A. M. M.</i> <i>9-16-64</i> APPROVAL <i>Ind. Eng.</i> <i>1-18-64</i> APPROVAL <i>Edm. C. Bell</i> <i>9/21/64</i>		TRANSFORMER, PULSE	
NASA APPROVAL <i>W. J. Palmer</i> <i>4-22-64</i> MIT APPROVAL <i>W. J. Palmer</i> <i>4-22-64</i>		SPECIFICATION CONTROL DRAWING	
CODE IDENT NO. <b>80230</b> SIZE <b>C</b>		NASA DRAWING NO. <b>1006293</b>	
SCALE <b>NONE</b> WT		SHEET <b>2</b> OF <b>2</b>	