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REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
(M) F	REPLACES REV E WITH CHANGES AND UPGRADED TO CLASS A RELEASE PER TDRR 02006	7/17/63	JH
(M) G	REVISED PER TDRR 02819	8/28/63	RCN JH
H	REVISED PER TDRR 06009	2/4/64	EPK WK

REQUIREMENTS:

1. GENERAL:

- A. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- B. UNITS SHALL MEET THE REQUIREMENTS OF MIL-S-19500 WITH THE EXCEPTIONS AND ADDITIONS SPECIFIED HEREIN.
- C. THE SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404, CLASS 2.
- D. UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS SPECIFIED IN ND 1002054.
- E. PACKAGING AND PACKING: UNIT PACKAGING AND PACKING SHALL BE IN ACCORDANCE WITH MIL-S-19491 LEVEL A, IN BOTH INSTANCES.

- D. LEAD BEND TEST: EACH LEAD SHALL BE CAPABLE OF WITHSTANDING A LEAD BEND TEST IN ACCORDANCE WITH MIL-STD-750, METHOD 2036, TEST CONDITION E. A WEIGHT OF 16 OUNCES PLUS OR MINUS 1 OUNCE SHALL BE APPLIED TO EACH LEAD. THE LEAD SHALL BE RESTRICTED SUCH THAT THE BEND STARTS 3/32 INCH PLUS OR MINUS 1/32 INCH FROM THE BODY OF THE DEVICE. NO MECHANICAL DAMAGE OR LACK OF ELECTRICAL PERFORMANCE SHALL BE EVIDENCED AFTER THIS TEST.
- E. LEAD PULL TEST: EACH LEAD SHALL BE CAPABLE OF WITHSTANDING A LEAD PULL TEST IN ACCORDANCE WITH MIL-STD-750, METHOD 2036, TEST CONDITION A WITH A STRAIGHT AXIAL PULL OF 4 POUNDS MINIMUM FOR 1 MINUTE: NO MECHANICAL DAMAGE OR LACK OF ELECTRICAL PERFORMANCE SHALL BE EVIDENCED AFTER THIS TEST.

2. ACCEPTANCE AND INSPECTION:

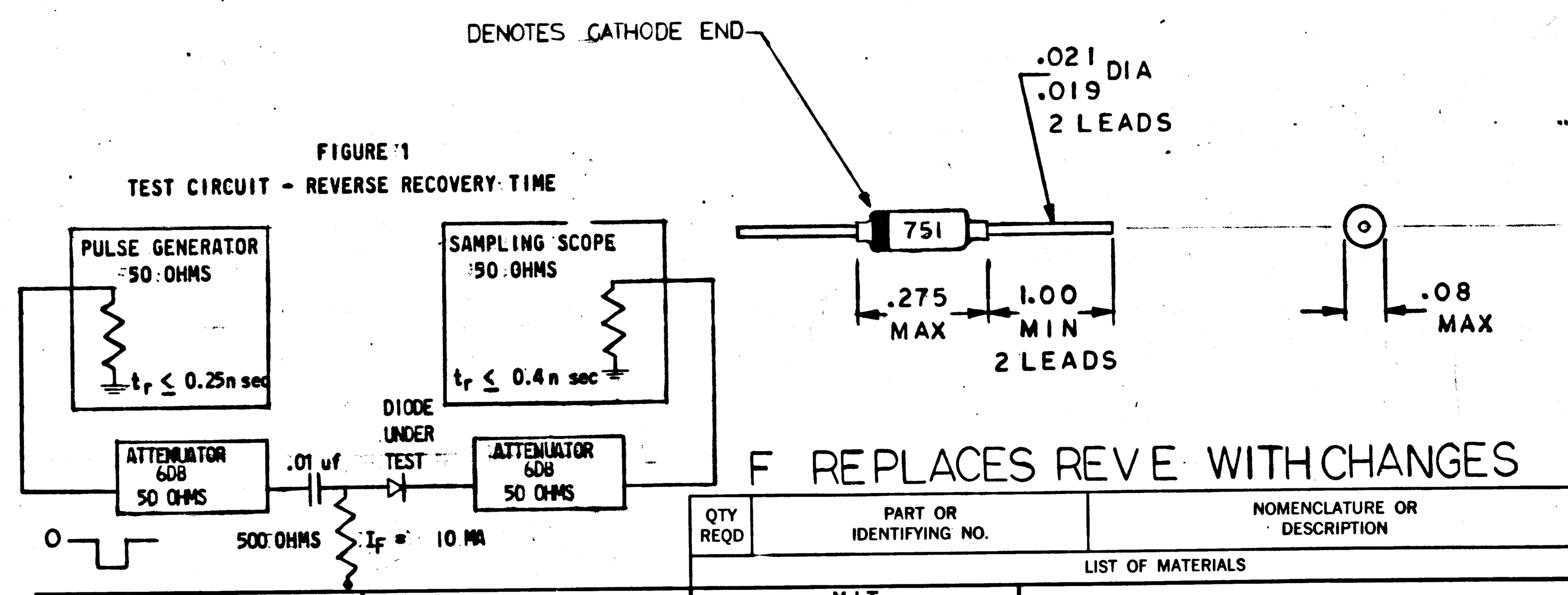
- A. ELECTRICAL CHARACTERISTICS: PER TABLE I.
  - (1) ITEMS 1 THRU 5: 100 PERCENT INSPECTION.
  - (2) ITEMS 6 AND 7: SAMPLE IN ACCORDANCE WITH MIL-STD-105, INSPECTION LEVEL I, AQL OF 4 PERCENT.
- B. MECHANICAL PROPERTIES:
  - (1) DIMENSIONS: PER OUTLINE. SAMPLE IN ACCORDANCE WITH MIL-STD-105, INSPECTION LEVEL I, AQL OF 4 PERCENT.
  - (2) MARKING: DIODES SHALL BE MARKED IN ACCORDANCE WITH MIL-S-19500 WITH A BLACK BAND DENOTING THE CATHODE END AND THE THREE DIGITS 751 PER DRAWING. UNIT PACKAGES AND EXTERIOR SHIPPING CONTAINERS SHALL BE MARKED IN ACCORDANCE WITH ND1002019 AND SHALL INCLUDE THE NASA DRAWING NUMBER, REVISION LETTER AND DASH NUMBER.
  - (3) LEAD MATERIAL: LEAD MATERIAL SHALL BE NICKEL PER PS 1015400. GOLD PLATING PER PARAGRAPH 3.2 IS OPTIONAL. A CERTIFICATE OF COMPLIANCE SHALL ACCOMPANY EACH SHIPMENT.

H	G
G	G
F	F
SHEET 1	SHEET 2
REVISION STATUS OF SHEETS	

3. DESIGN:

- A. ABSOLUTE MAXIMUM RATINGS:
  - (1) POWER DISSIPATION: 500 MILLIWATTS AT 25 DEGREES CENTIGRADE AMBIENT TEMPERATURE.
  - (2) JUNCTION TEMPERATURE (T<sub>j</sub>): FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 175 DEGREES CENTIGRADE.
  - (3) STORAGE TEMPERATURE (T<sub>stg</sub>): FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 200 DEGREES CENTIGRADE.
  - (4) PEAK FORWARD SURGE CURRENT (i<sub>f</sub> SURGE): 1 AMPERE FOR 1 SECOND MINIMUM. REPETATIVE DUTY CYCLE OF 1 PERCENT.
- B. CONSTRUCTION: GLASS, HERMETICALLY SEALED ENCLOSURE.
- C. THERMAL SHOCK: UNITS SHALL BE CAPABLE OF WITHSTANDING A THERMAL SHOCK IN SILICON OIL FROM ZERO DEGREES CENTIGRADE TO +300 DEGREES CENTIGRADE FOR 5 COMPLETE CYCLES. TOTAL IMMERSION TIME EACH HALF CYCLE SHALL BE 30 SECONDS. ELAPSED TRANSFER TIME FROM ONE TEMPERATURE EXTREME TO THE OTHER SHALL NOT EXCEED 3 SECONDS. UNITS SHALL SHOW NO PHYSICAL DAMAGE OR LACK OF ELECTRICAL PERFORMANCE AFTER THERMAL SHOCK.

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



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: C. Crisp DATE: 7/17/63 CHECKED: R. J. [unclear] APPROVAL: E. C. Hall		SEMICONDUCTOR DEVICE, DIODE	
NASA APPROVAL: W. J. [unclear] 7-17-63 MIT APPROVAL: J. [unclear] 7/17/63		SPECIFICATION CONTROL DRAWING	
HEAT TREATMENT	FINAL FINISH	CODE IDENT NO.	NASA DRAWING NO.
		C	1006751
NEXT ASSY	USED ON	SCALE NONE	WT
APPLICATION			SHEET 1 OF 2

