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REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS # 13251 PER TAB A	10-1-64	W

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. SUPPLIERS SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404, CLASS 2
- D. UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS OF ND 1002054.
- E. MARKING:
 - (1) UNITS: DIODES SHALL BE MARKED WITH COLORED BANDS IN ACCORDANCE WITH MIL-S-19500 DENOTING THE TYPE AND INDICATING THE POSITIVE LEAD.
 - (2) PACKAGE: UNIT PACKAGES AND SHIPPING CONTAINERS SHALL BE MARKED INTERNALLY AND EXTERNALLY PER MIL-STD-129 WITH THE MANUFACTURER'S NAME, LOT NUMBER, DATE OF MANUFACTURE, AND THE NASA DRAWING NUMBER AND REVISION LETTER.

C. PARAMETRIC CHANGE LIMITS:

- (1) ZENER VOLTAGE (V_Z): PLUS OR MINUS 1.0 PERCENT OF INITIAL VALUE.
- (2) ZENER IMPEDANCE (Z_{ZK}): PLUS OR MINUS 10 PERCENT OF INITIAL VALUE.
- (3) ZENER IMPEDANCE (Z_{ZT}): PLUS OR MINUS 10 PERCENT OF INITIAL VALUE OR 2 OHM, WHICHEVER IS GREATER.

D. UNITS WHICH FAIL TO MEET ALL INITIAL REQUIREMENTS OR WHICH EXCEED THE SPECIFIED LIMITS FOR PARAMETRIC CHANGES FOLLOWING BURN-IN SHALL NOT BE SHIPPED

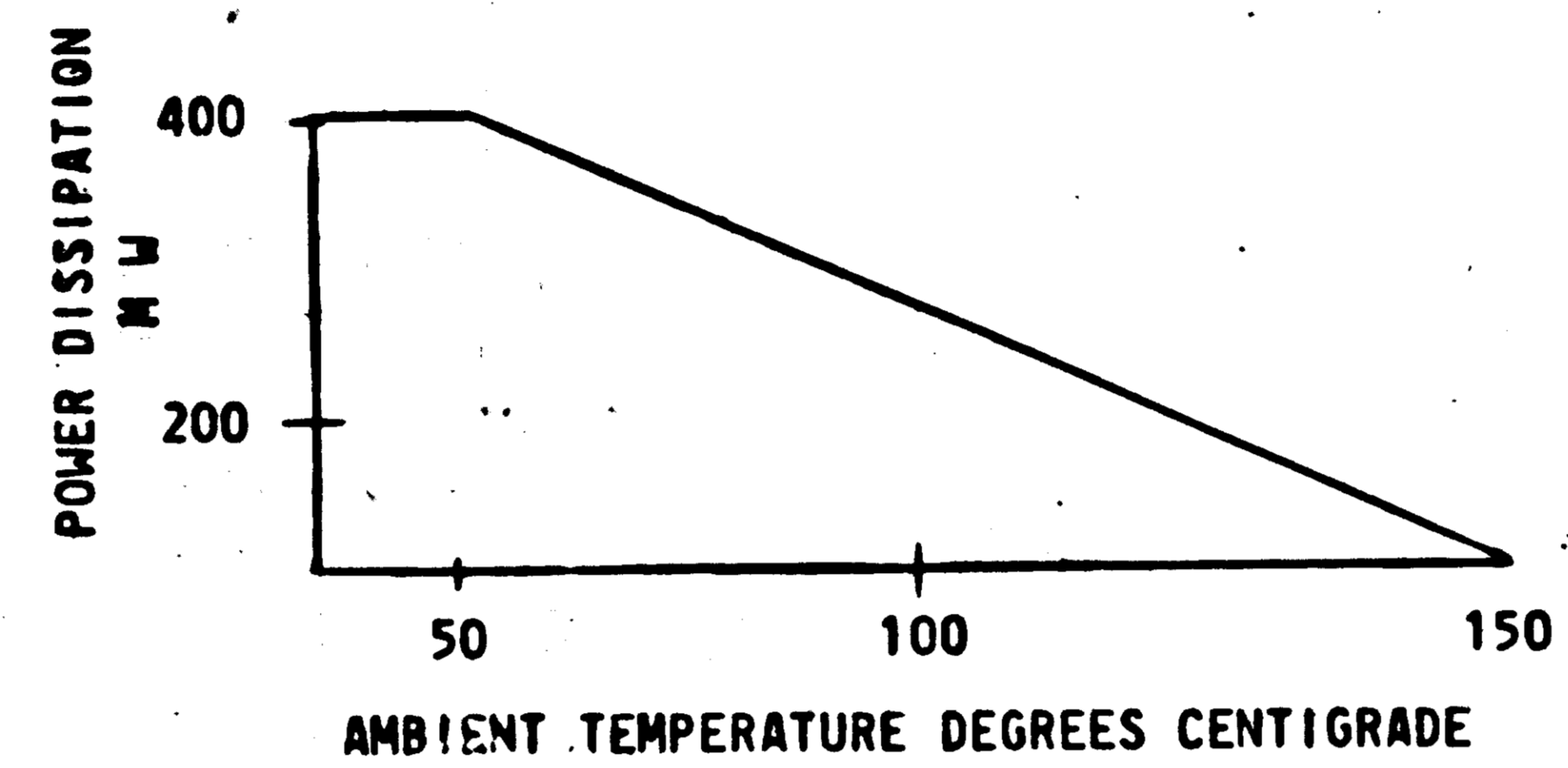


TABLE T

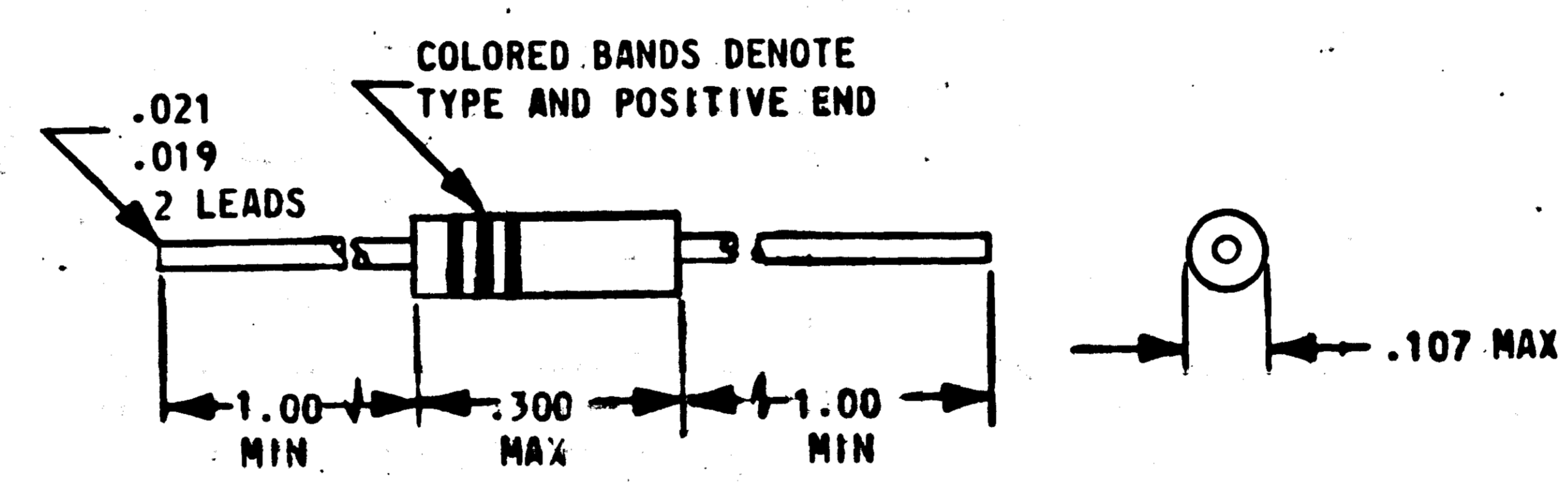
ELECTRICAL CHARACTERISTICS AT 25°C UNLESS OTHERWISE SPECIFIED					
PARAMETER	CONDITIONS	SYMBOL	LIMITS		UNITS
			MIN	MAX	
ZENER VOLTAGE	$I_{ZT} = 4 \text{ MA} \pm .5 \text{ MA}$	V_Z	8.55	9.45	VOLT
ZENER IMPEDANCE	$I_{ZT} = 4 \text{ MA} \pm .5 \text{ MA}$	Z_{ZT}		25	OHM
ZENER IMPEDANCE	$I_{ZT} = 1.0 \text{ MA}$	Z_{ZK}		200	OHM

2. ACCEPTANCE AND INSPECTION: (SAMPLE)

- A. LEAD MATERIAL: LEADS SHALL BE IRON-NICKEL ALLOY (DUMET) PER ND 1015401. A CERTIFICATE OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.
- B. ELECTRICAL CHARACTERISTICS PER TABLE I:
 - (1) ZENER VOLTAGE (V_Z)
 - (2) ZENER IMPEDANCE (Z_{ZT}) (Z_{ZK})

3. DESIGN:

- A. MAXIMUM RATINGS:
 - (1) POWER DISSIPATION: 400 MILLIWATTS (SEE DERATING CURVE)
 - (2) STORAGE TEMPERATURE: FROM MINUS 65°C TO PLUS 150°C
 - (3) OPERATING TEMPERATURE: FROM MINUS 65°C TO PLUS 125°C
 - (4) TEMPERATURE COEFFICIENT: PLUS OR MINUS .001 PERCENT PER DEGREE CENTIGRADE FROM ZERO TO 75°C WITH A ZENER CURRENT OF 4.0 MA
- B. ENCLOSURE: GLASS, HERMETICALLY SEALED



4. SPECIAL CONDITIONING BY SUPPLIER:

- A. UNITS SHALL BE BURNED-IN FOR 240 HOURS UNDER THE FOLLOWING CONDITIONS:
 - (1) AMBIENT TEMPERATURE: 100°C PLUS OR MINUS 5°C.
 - (2) ZENER CURRENT: 15 MA
 - (3) POWER = 135 MW MINIMUM
- B. THE MANUFACTURER SHALL RECORD THE ELECTRICAL CHARACTERISTICS PER TABLE I PRIOR TO AND FOLLOWING BURN-IN. DATA SHALL BE SUPPLIED WITH THE PARTS.

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

MASTER

QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIND NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS. NAS9-490		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN: [Signature] DATE: 2/2/64		SEMICONDUCTOR DEVICE, DIODE	
CHECKED: [Signature] DATE: 2/2/64			
APPROVAL: [Signature]		SPECIFICATION CONTROL DRAWING	
NASA APPROVAL: [Signature]			
MIT APPROVAL: [Signature]		CODE IDENT NO. SIZE	NASA DRAWING NO.
APPLICATION		C	1006290
		SCALE NONE WT	SHEET 1 OF 1

