

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 CONFERRING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THEREBY.

8289001

REVISIONS

SYM	DESCRIPTION	DATE	APPROVAL
-			

REQUIREMENTS:

GENERAL:

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
SUPPLIERS SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS OF ND 1015404 CLASS 2.
UNITS SHALL MEET THE GENERAL REQUIREMENTS OF MIL-S-19500 WITH THE EXCEPTIONS AND ADDITIONS SPECIFIED IN THIS DRAWING.
UNIT PACKAGING AND PACKING SHALL BE IN ACCORDANCE WITH MIL-P-19491 LEVEL A IN BOTH INSTANCES.

INSPECTION & ACCEPTANCE:

LEAD DATA: LEADS SHALL BE IRON-NICKEL ALLOY (DUMET) PER ND 1015401 CERTIFICATION OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.

MARKING: UNIT PACKAGES SHALL BE MARKED PER MIL-STD-130 WITH THE MANUFACTURER'S NAME/OR SYMBOL AND TYPE DESIGNATION. THE NASA DRAWING NUMBER, DASH NUMBER, AND REVISION LETTER SHALL ALSO BE INCLUDED. THE DIODES SHALL BE MARKED ONLY WITH COLOR CODED IDENTIFYING BANDS IN ACCORDANCE WITH MIL-S-19500 AND MIL-STD-174.

ELECTRICAL SPECIFICATIONS PER TABLE I.

ZENER VOLTAGE (V_Z)

ZENER IMPEDANCE (Z_{ZT})

DESIGN REQUIREMENTS:

MAXIMUM RATINGS:

ZENER CURRENT: 60 ma DC

POWER DISSIPATION: 400 MILLIWATTS (SEE DERATING CURVE)

STORAGE TEMPERATURE: -65°C TO $+150^{\circ}\text{C}$

TEMPERATURE COEFFICIENT: .002%/°C WITH A ZENER CURRENT OF 7.5 ma.

SPECIAL CONDITIONING BY SUPPLIER:

UNITS SHALL BE BURNED IN FOR 240 HOURS AT THE FOLLOWING CONDITIONS:

1. AMBIENT TEMPERATURE $100^{\circ}\text{C} \pm 5^{\circ}\text{C}$.
2. POWER DISSIPATION: 50% OF THE 100°C CASE TEMPERATURE RATING.

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

THE MANUFACTURER SHALL DETERMINE AND RECORD THE FOLLOWING ELECTRICAL CHARACTERISTICS PRIOR TO AND FOLLOWING BURN IN.

1. ZENER VOLTAGE (V_Z)
2. DYNAMIC IMPEDANCE (Z_{ZT})
3. LEAKAGE CURRENT (I_R)

PARAMETRIC CHANGE LIMITS:

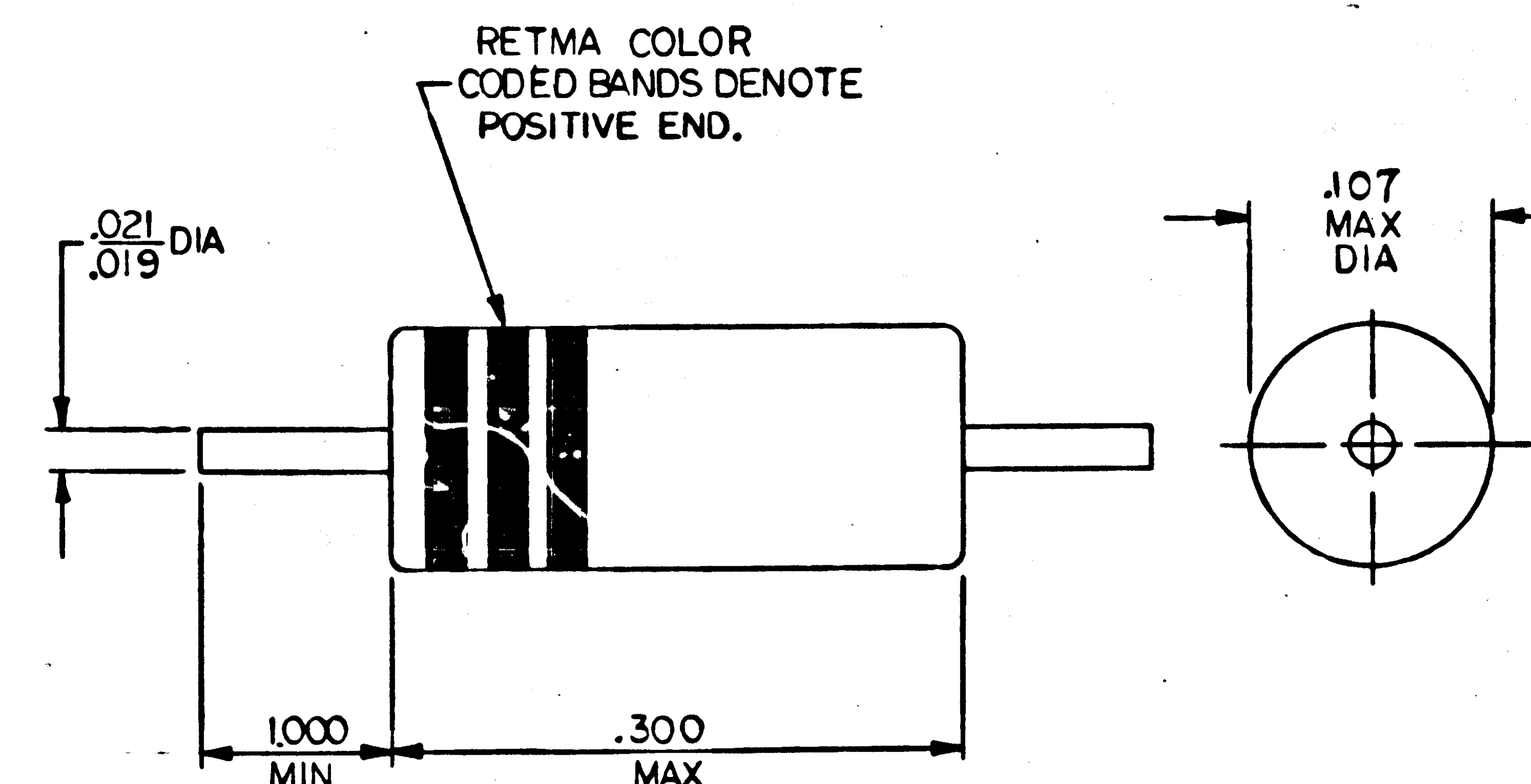
1. ZENER VOLTAGE: $\pm 0.5\%$ OF INITIAL MEASURED VALUE
2. DYNAMIC IMPEDANCE: $\pm 5\%$ OF INITIAL MEASURED VALUE
3. LEAKAGE CURRENT: SHALL NOT EXCEED 100% OF INITIAL MEASURED VALUE.

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

MASTER

FOR INFORMATION ONLY

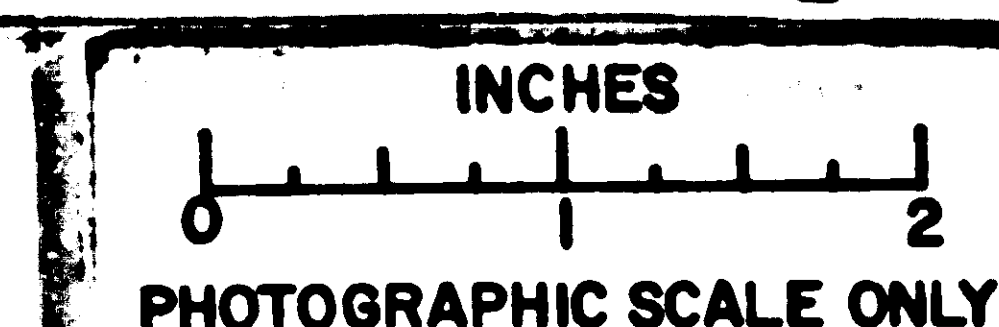
CLASS B RELEASE TDR No. 01450 DATE 4/5/63



SHEET 1	SHEET 2
REVISION STATUS OF SHEETS	

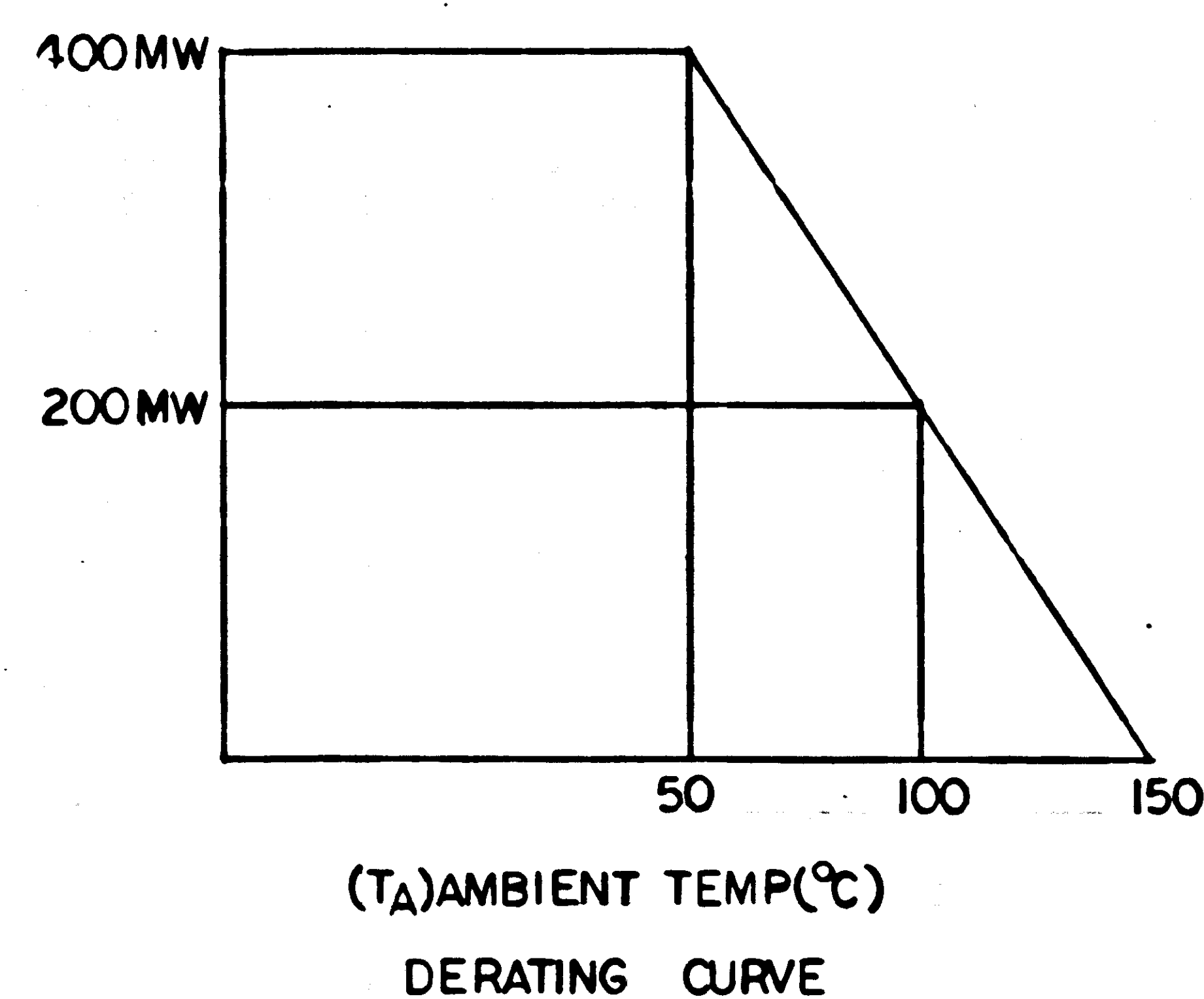
QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIND NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>R. Kane</i> DATE <i>8/1/63</i>		SEMICONDUCTOR DEVICE, DIODE SPECIFICATION CONTROL DRAWING	
CHECKED <i>Joe H. 3/2/63</i>			
APPROVAL <i>Edman C. Hall 3/2/63</i>			
NASA APPROVAL <i>W. J. Rhine 6-5-63</i>		CODE IDENT NO.	NASA DRAWING NO. 1006838
MIT APPROVAL <i>L. Nafis 6/1/63</i>		SCALE NONE	WT
		SHEET 1	OF 2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	
FRACTIONS DECIMALS ANGLES	
$\pm$ $\pm$ $\pm$	
DO NOT SCALE THIS DRAWING	
MATERIAL	SEE NOTES
HEAT TREATMENT	NONE
FINAL FINISH	NONE
NEXT ASSY	USED ON
APPLICATION	



REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL

ELECTRICAL CHARACTERISTICS AT AMBIENT TEMPERATURE = 25°C (UNLESS OTHERWISE SPECIFIED)					
PARAMETER	CONDITIONS	SYMBOL	SPECIFICATION LIMITS		
			MIN	MAX	UNITS
ZENER VOLTAGE	$I_{ZT} = 7.5 \text{ MA}$	V_Z	5.9	6.5	VOLTS
ZENER IMPEDANCE	$I_{ZT} = 7.5 \text{ MA}$	Z_{ZT}	-	10	OHMS
ZENER IMPEDANCE	$I_{ZK} = 1 \text{ MA}$	Z_{ZK}		200	OHMS
LEAKAGE CURRENT	$V_Z = 5.0 \text{ VOLTS}$	I_R		100	ua



CLASS B RELEASE TDR No. 01450 DATE 4/5/6

		QTY REQD		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		FIN NO.	
		LIST OF MATERIALS							
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ± ± ± _____ _____ _____ DO NOT SCALE THIS DRAWING MATERIAL SEE NOTES		M I T INSTRUMENTATION LAB CAMBRIDGE, MASS. DWS. NO. CONTRACT		MANNED SPACECRAFT CENTER HOUSTON, TEXAS			
		DRAWN <u>R. Kase</u> DATE <u>10/14/63</u> CHECKED <u>Don J. Ross</u> <u>3 June 63</u> APPROVAL _____ APPROVAL <u>Edna C. Hall</u> <u>3 June 63</u>		SEMICONDUCTOR DEVICE, DIODE SPECIFICATION CONTROL DRAWING					
		HEAT TREATMENT NONE FINAL FINISH NONE						NASA APPROVAL <u>W. J. Rhine</u> <u>6-5-63</u> MIT APPROVAL <u>L. Nader</u> <u>6/15/64</u>	
NEXT ASSY		USED ON		CODE IDENT NO.		SIZE		NASA DRAWING NO.	
						C		1006838	
APPLICATION				SCALE		NONE		WT	
								SHEET 2 OF 2	

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PHOTOGRAPHIC SCALE ONLY