

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 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:

- UNITS SHALL MEET THE APPLICABLE REQUIREMENTS OF MIL-R-10509, STYLE RN60, CHARACTERISTIC B, TOLERANCE F, EXCEPT AS SPECIFIED HEREIN.
- UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS SPECIFIED IN ND 1002057 UNLESS MODIFIED OR AMENDED BY THE DESIGN REQUIREMENTS SECTION OF THIS DRAWING.
- THE SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS SPECIFIED IN ND 1015404, CLASS 2.
- INTERPRET DRAWING SYMBOLS, ABBREVIATIONS, AND REFERENCE DESIGNATIONS IN ACCORDANCE WITH GOVERNMENT STANDARDS PRESCRIBED IN MIL-D-70327.
- UNIT PACKAGING AND PACKING SHALL BE IN ACCORDANCE WITH ND 1002129.

##### 2. INSPECTION AND ACCEPTANCE:

###### A. ELECTRICAL REQUIREMENTS:

- RESISTANCE VALUE: PER TABLE
- RESISTANCE TOLERANCE: PER TABLE  $\pm 1\%$

###### B. MECHANICAL REQUIREMENTS:

- LEAD MATERIAL SHALL BE NICKEL ALLOY PER NASA DOCUMENT PS 1015400. A CERTIFICATE OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.
- UNIT MARKING: THE MANUFACTURER'S NAME OR SYMBOL, THE NASA DRAWING NUMBER, DASH NUMBER (IF ANY), REVISION LETTER, SHALL BE PERMANENTLY AND LEGIBLY MARKED ON THE PART PER MIL-STD-130. MANUFACTURER'S PART OR TYPE NUMBER MAY APPEAR ON THE PART OR PACKAGE.
- DIMENSIONS PER FIGURE

##### 3. DESIGN REQUIREMENTS:

- PER THE REQUIREMENTS OF MIL-R-10509 AS MODIFIED BY THIS DRAWING.
- POWER RATING: 1/8 WATT AT +70°C; DERATING LINEAR TO +150°C
- MAX CONTINUOUS WORKING VOLTAGE: 250 VOLTS
- TEMPERATURE COEFFICIENT:  $\pm 500\text{PPM}/^\circ\text{C}$  (-55°C TO +150°C) FOR VALUES THRU 4,530,000 $\Omega$ .  $\pm 625\text{PPM}/^\circ\text{C}$  (-55°C TO +150°C) FOR VALUES 4,640,000 $\Omega$  THRU 10,000,000 $\Omega$ .
- DIELECTRIC WITHSTANDING VOLTAGE: 750 VOLTS RMS AT ATMOSPHERIC PRESSURE.

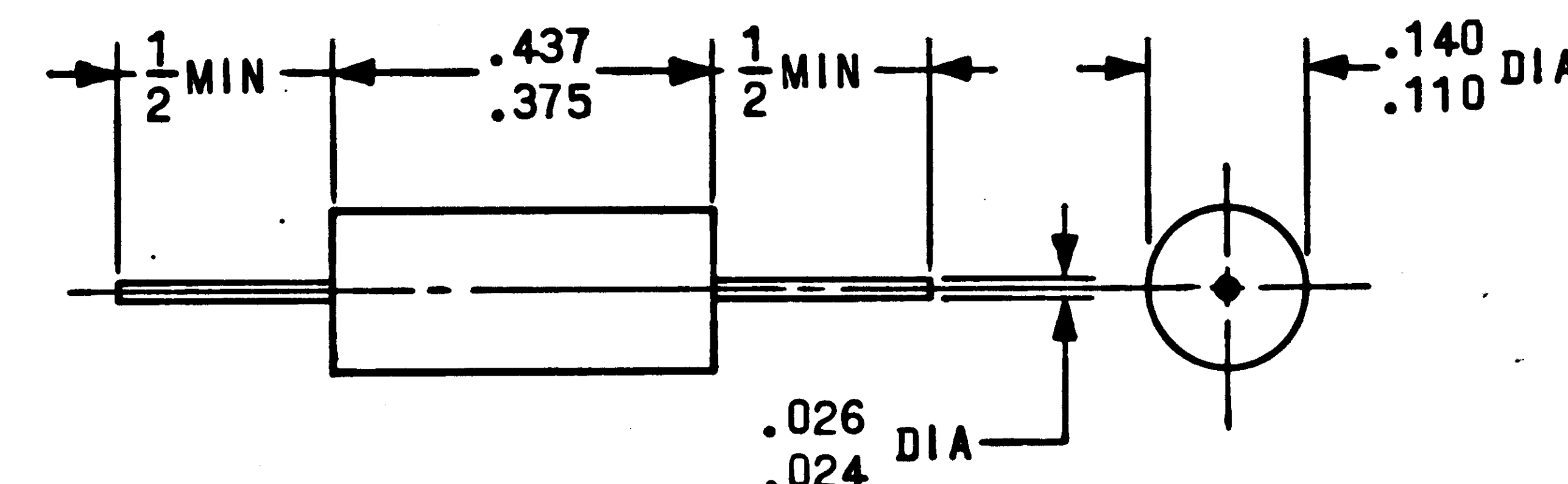
##### 4. SPECIAL CONDITIONING BY SUPPLIER:

- BURN-IN: THE UNITS SHALL BE BURNED IN FOR 100 HOURS AT +70°C AND RATED POWER. THE RESISTANCE CHANGE SHALL NOT EXCEED .5%. THE UNITS SHALL NOT EXCEED THE INITIAL TOLERANCE BEFORE OR AFTER BURN-IN.

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

1010768 B

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER TDR 12606	9/15/61	WR
A	REVISED PER TDR 18242	4/17/63	WR
B	REVISED PER TDR 20339	8/28/63	WR



QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIND NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS Contract NAS 9-497		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>Bender</i> DATE <i>3 JUN-64</i> CHECKED <i>Ed Foster</i> 18 AUG 64 APPROVAL <i>P. B. Toot</i> 16 Sept 64		RESISTOR, FIXED CARBON FILM	
SEE REQUIREMENTS		SPECIFICATION CONTROL DRAWING	
HEAT TREATMENT NONE		NASA APPROVAL <i>W. J. O'Hara</i> 8-15-64	CODE IDENT NO. 80230 SIZE C
FINAL FINISH NONE		MIT APPROVAL <i>L. H. H. H.</i> 9/15/61	NASA DRAWING NO. 1010768
APPLICATION		SCALE NONE WT	SHEET 1 OF 2

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DASH NO.	RESISTANCE OHMS	DASH NO.	RESISTANCE OHMS	DASH NO.	RESISTANCE OHMS	DASH NO.	RESISTANCE OHMS	DASH NO.	RESISTANCE
1	511,000	42	1,370,000	83	3,650,000	124	9,760,000	165	249000
2	523,000	43	1,400,000	84	3,740,000	125	10,000,000	166	255000
3	536,000	44	1,630,000	85	3,830,000	126	6,320,000	167	261000
4	549,000	45	1,470,000	86	3,920,000	127	100,000	267	
5	562,000	46	1,500,000	87	4,020,000	128	102,000	274	
6	576,000	47	1,540,000	88	4,120,000	129	105	280	
7	590,000	48	1,580,000	89	4,220,000	130	107	287	
8	604,000	49	1,620,000	90	4,320,000	132	110	294	
9	619,000	50	1,650,000	91	4,420,000		113	301	
10	634,000	51	1,690,000	92	4,530,000			309	
11	649,000	52	1,740,000	93	4,640,000		115	316	
12	665,000	53	1,780,000	94	4,750,000	135	118	324	
13	681,000	54	1,820,000	95	4,870,000		121	332	
14	698,000	55	1,870,000	96	4,990,000		127	340	
15	715,000	56	1,910,000	97	5,110,000	138	130	348	
16	732,000	57	1,960,000	98	5,230,000				
17	750,000	58	2,000,000	99	5,360,000		133	357	
18	768,000	59	2,050,000	100	5,490,000	141	137	365	
19	787,000	60	2,100,000	101	5,620,000		140	374	
20	806,000	61	2,150,000	102	5,760,000		143	383	
21	825,000	62	2,210,000	103	5,900,000	144	147	392	
22	845,000	63	2,260,000	104	6,040,000		150	402	
23	866,000	64	2,320,000	105	6,190,000	147	154	412	
24	887,000	65	2,370,000	106	6,340,000		158	422	
25	909,000	66	2,430,000	107	6,490,000		162	432	
26	931,000	67	2,450,000	108	6,650,000	150	165	442	
27	953,000	68	2,550,000	109	6,810,000		169	453	
28	976,000	69	2,610,000	110	6,980,000		174	464	
29	1,000,000	70	2,670,000	111	7,150,000		178	475	
30	1,020,000	71	2,740,000	112	7,320,000	153	182	487	
31	1,050,000	72	2,800,000	113	7,500,000		187	499	
32	1,070,000	73	2,870,000	114	7,680,000		191		
33	1,100,000	74	2,940,000	115	7,870,000	156	196		
34	1,130,000	75	3,010,000	116	8,060,000		200		
35	1,150,000	76	3,090,000	117	8,250,000		205		
36	1,180,000	77	3,160,000	118	8,450,000	159	210		
37	1,210,000	78	3,240,000	119	8,660,000		215		
38	1,240,000	79	3,320,000	120	8,870,000		221		
39	1,270,000	80	3,400,000	121	9,090,000	162	226		
40	1,300,000	81	3,480,000	122	9,310,000		232		
41	1,330,000	82	3,570,000	123	9,530,000		237		
						164	243		

THE COMPLETE PART NUMBER SHALL BE THIS DRAWING NUMBER PLUS THE APPLICABLE DASH NUMBER, AND REVISION LETTER.

		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
		TOLERANCES ON
		FRACTIONS DECIMALS ANGLES
		± ± ±
		DO NOT SCALE THIS DRAWING
		MATERIAL
		HEAT TREATMENT
NEXT ASSY	USED ON	FINAL FINISH
APPLICATION		

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NASA APPROVAL <i>W. J. R. Rine</i> 9-15-64 MIT APPROVAL <i>Q. Hafel</i> 11/5/62		CODE IDENT NO. 80230 SCALE	NASA DRAWING NO. 1010768 SHEET 2 OF 2