

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 OMISSION, MISSTATEMENT, OR 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:

##### GENERAL:

- D** UNITS SHALL BE CAPABLE OF MEETING THE REQUIREMENTS OF SPECIFICATION MIL-R-26, CHARACTERISTIC G, FOR INSULATED TYPES; EXCEPT AS MODIFIED HEREIN.
- 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.
- PACKAGING: UNITS SHALL BE PACKAGED PER MIL-R-26, LEVEL A.

##### INSPECTION AND ACCEPTANCE:

###### ELECTRICAL REQUIREMENTS:

RESISTANCE: PER TABLE

RESISTANCE TOLERANCE:  $\pm 1\%$

###### MECHANICAL REQUIREMENTS:

- C** LEADS: NICKEL ALLOY PER ND PS 1015400. A CERTIFICATE OF COMPLIANCE TO THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.
- MARKING: MARK UNITS PER MIL-STD-130 WITH THE NASA PART NUMBER AND REVISION LETTER AND THE MANUFACTURER'S NAME AND/OR SYMBOL, RESISTANCE VALUE, TOLERANCE AND POWER RATING. THE MANUFACTURER'S PART NUMBER MAY APPEAR ON THE PART OR PACKAGE. MARKING OF UNIT PACKAGES AND EXTERIOR SHIPPING CONTAINERS SHALL INCLUDE NASA PART NUMBER AND REVISION LETTER.

##### DESIGN REQUIREMENTS:

PER MIL-R-26 MODIFIED PER THIS DRAWING.

POWER RATING: 3 WATTS @ 25°C DERATED TO ZERO AT 275°C.

TEMPERATURE COEFFICIENT:

50  $\Omega$  AND ABOVE =  $\pm 20$  PPM/°C

1  $\Omega$  THRU 50 =  $\pm 40$  PPM/°C

MAXIMUM RATED CONTINUOUS WORKING VOLTAGE:  $E = \sqrt{PR}$  OR 100 VOLTS MAX.

- B** RESISTANCE ELEMENT: RESISTANCE WIRE USED SHALL HAVE A MINIMUM DIAMETER OF 0.001 INCH. (SEE NOTES FOR EXCEPTIONS)

DIELECTRIC STRENGTH: 1000 VOLTS AC RMS, 60 CYCLE.

HOUSING: METAL TUBING.

EACH LEAD SHALL BE CAPABLE OF WITHSTANDING TWO (2) BENDS UNDER A TWO (2) POUND VERTICAL PULL (LEAD VERTICAL WITH RESPECT TO UNIT BODY). TWO (2) BENDS SHALL BE ACCOMPLISHED BY MOVING THE BODY OF THE UNIT, WHILE IN THE SAME PLANE, THROUGH 90° IN ONE DIRECTION, THEN BACK 180° TO THE OPPOSITE DIRECTION, THEN BACK 90° TO THE ORIGINAL POSITION. NO MECHANICAL DAMAGE OR LACK OF PERFORMANCE SHALL BE EVIDENCED AFTER THE TEST.

##### SPECIAL CONDITIONING BY SUPPLIER:

**BURN-IN TEST:** THE MANUFACTURER SHALL BURN-IN ALL RESISTORS FOR 100 HOURS AT +25°C AT 3 WATTS @ COMMERCIAL LINE FREQUENCY 1-1/2 HRS ON AND 1/2 HR. OFF.

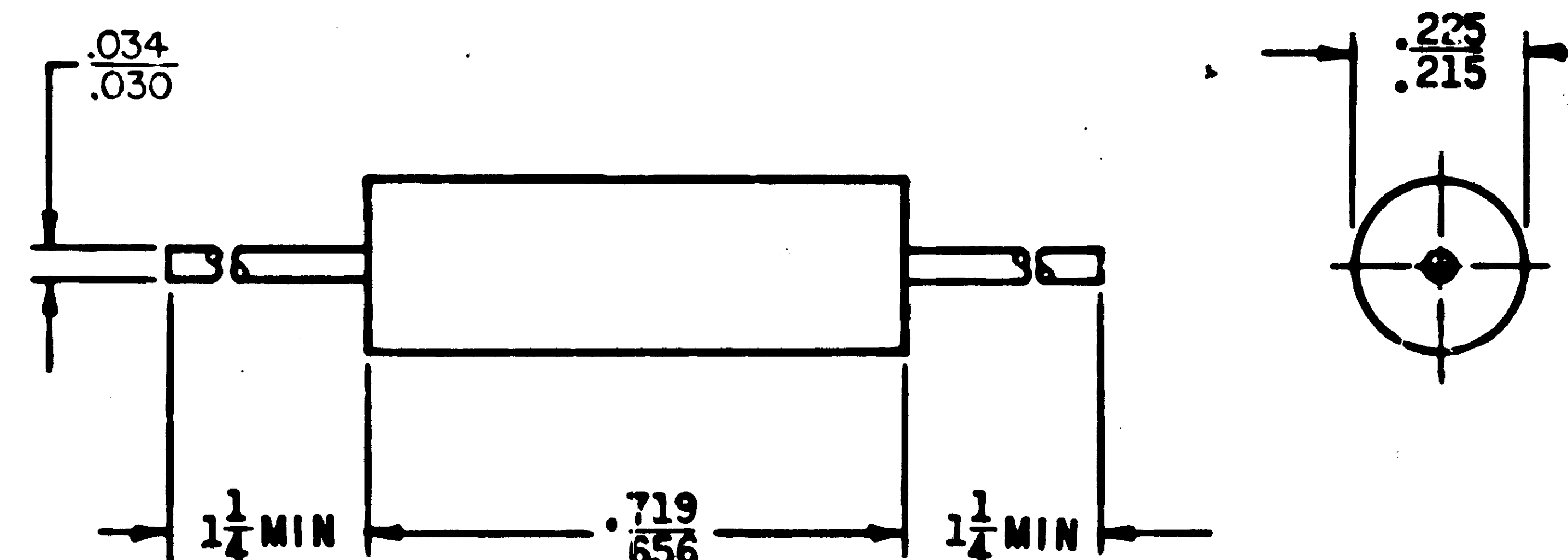
- A** UNITS CHANGING RESISTANCE MORE THAN 0.5% OR EXCEEDING THE INITIAL PURCHASE TOLERANCE SHALL BE REJECTED.

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

3 68E0101

#### REVISIONS

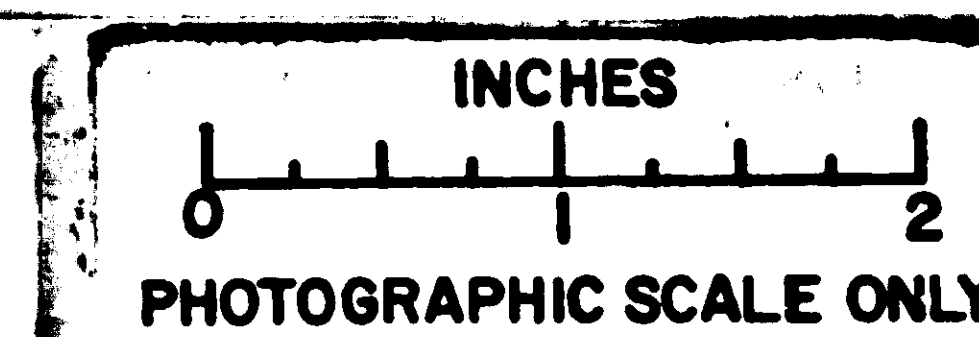
SYM	DESCRIPTION	DATE	APPROVAL
E	REPLACES REV D WITH CHANGES AND UPGRADED TO CLASS A RELEASE PER TDRR 0209	7/17/63	RM



Ⓔ REPLACES REV(D) WITH CHANGES

E	E
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>[Signature]</i> DATE: 6-5-63 CHECKED: <i>[Signature]</i> 12 JUNE 63 APPROVAL: <i>[Signature]</i> 7/17/63		RESISTOR, FIXED, WIREWOUND SPECIFICATION CONTROL DRAWING	
NASA APPROVAL: <i>[Signature]</i> 7-17-63 MIT APPROVAL: <i>[Signature]</i> 7/17/63		CODE IDENT NO.	NASA DRAWING NO.
		C	1010389
SCALE: NONE		WT	SHEET 1 OF 2





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E 680101

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
E	REPLACES REV D WITH CHANGES AND UPGRADED TO CLASS A RELEASE PER TDRR 02091	7/7/63	W

BASIC RESISTANCE OHMS	MULTIPLIER				
	10 <sup>-1</sup>	1	10	10 <sup>2</sup>	10 <sup>3</sup>
NASA DASH NO. SEE NOTE 1					
10		8	32	56	80
11		9	33	57	81
12		10	34	58	82
13		11	35	59	83
15		12	36	60	84
16		13	37	61	85
18		14	38	62	86
20		15	39	63	87
22		16	40	64	88
24		17	41	65	89
27		18	42	66	90
30		19	43	67	91
33		20	44	68	
36		21	45	69	
39		22	46	70	
43		23	47	71	
47		24	48	72	
51	1	25	49	73	
56	2	26	50	74	
62	3	27	51	75	
68	4	28	52	76	
75	5	29	53	77	
82	6	30	54	78	
91	7	31	55	79	

COMPLETE PART NUMBER IS THE DRAWING NUMBER PLUS THE APPLICABLE DASH NUMBER.

NON-STANDARD VALUES	
DASH NUMBER	RESISTANCE OHMS
-92	43
-93	70

NOTES:  
1. UNITS 68 THRU 91 NOT AVAILABLE USING .001 MIN. DIA. WIRE.

E REPLACES REV(D) WITH CHANGES

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. K. [signature]</i> DATE <i>6-23-63</i>		RESISTOR, FIXED, WIREWOUND	
CHECKED <i>R. [signature]</i> DATE <i>12 JUN 63</i>		SPECIFICATION CONTROL DRAWING	
APPROVAL <i>[signature]</i> DATE <i>7/1/63</i>		NASA DRAWING NO. 1010389	
NASA APPROVAL <i>W. J. [signature]</i> DATE <i>7-17-63</i>		CODE IDENT NO. C	SIZE
MIT APPROVAL <i>[signature]</i> DATE <i>7/17/63</i>		SCALE NONE	WT
NEXT ASSY		SHEET 2 OF 2	
USED ON			
APPLICATION			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ± — ± — ± — DO NOT SCALE THIS DRAWING MATERIAL SEE NOTES HEAT TREATMENT NONE FINAL FINISH NONE			

