

IF IT IS FOUND DESIRABLE TO CHANGE ANY TOLERANCE OR OTHER DETAIL SPECIFIED ON THIS DRAWING NOTIFY THE PURCHASER PROMPTLY.

RR-100 B

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

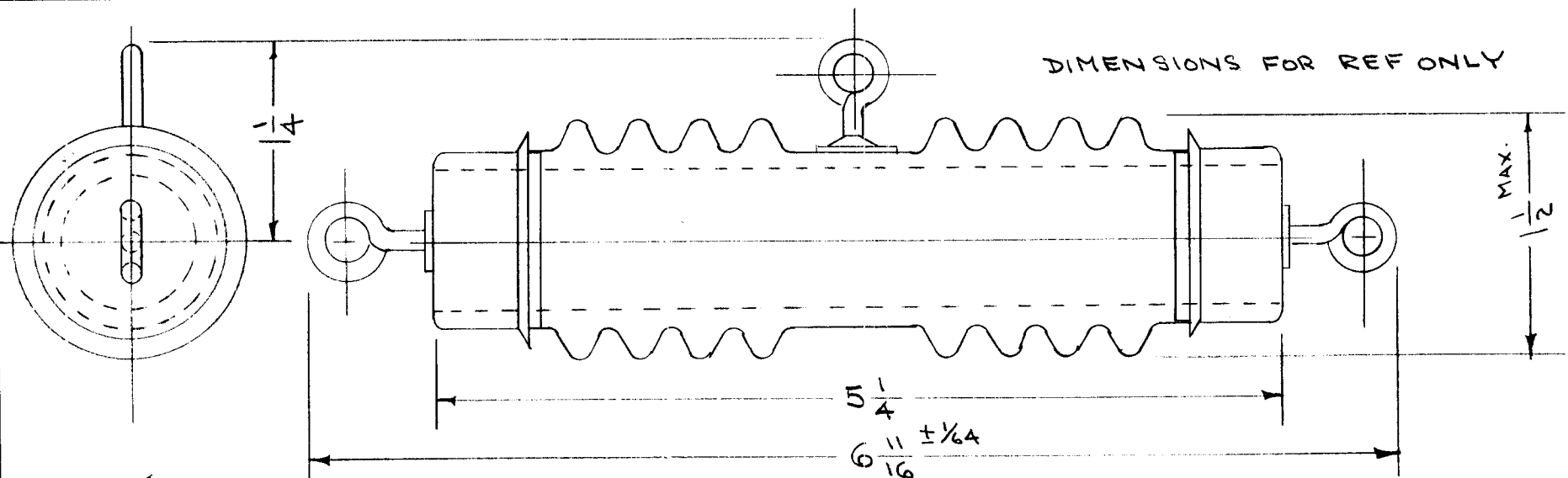
USED ON

MODEL

PROJECT NO.

ASS'Y. NO.

DATE



| TMC NO.  | CAT. NO. | RESISTANCE OHMS |
|----------|----------|-----------------|
| RR-100-1 |          | 725 ± 5%        |

HERMETICALLY SEALED WITH SLIGHT DRY VACUUM. GLAZED CERAMIC ENVELOPE. NON INDUCTIVE WIRE WOUND RESISTOR. TERMINALS PERMIT CONNECTION OF 7 STRAND #16 ANTENNA WIRE. OPERATING TEMPERATURE RANGE -20° F TO +120° F.

REF: SHALLCROSS MFG. CO.

| REQ.       | ITEM  | PART NO.  | DESCRIPTION  | SYMBOL          |
|------------|---|---|--|-----------------|
|            | #   |   | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK. NEW YORK |                 |
|            | #   | STOCK SIZE  | RHOMBIC ANTENNA                                      |                 |
|            | #   | MATERIAL WEIGHT PER PC.   | TERMINATING RESISTOR                                 |                 |
|            | #   | TYPE & TEMPER   | CDD. 2-12-54   | uPC             |
| ISSUE      | ITEM  | CHANGED FROM  | DRAWN  | ELEC. DES. APP. |
|            |   | DATE  | MECH. DES. APP.                                      |                 |
| TOLERANCES |   | SCALE   | FINAL APPROVAL                                       |                 |
| ALL OTHERS | DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± | DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED. | RR-100 B   |                 |

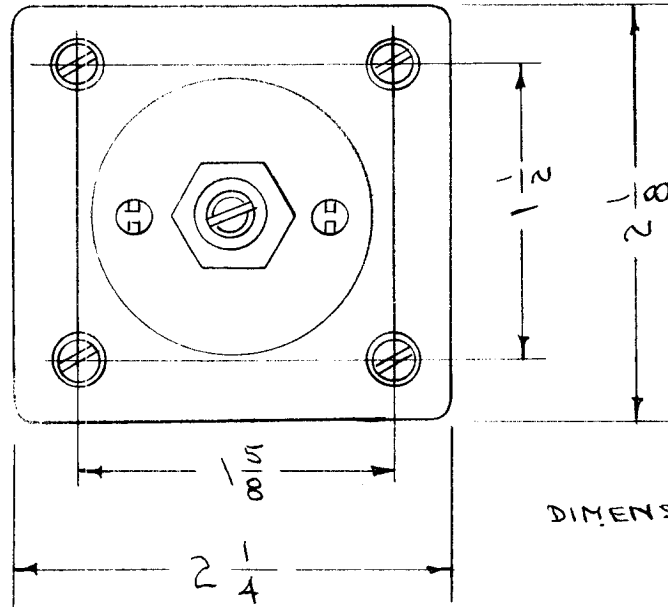
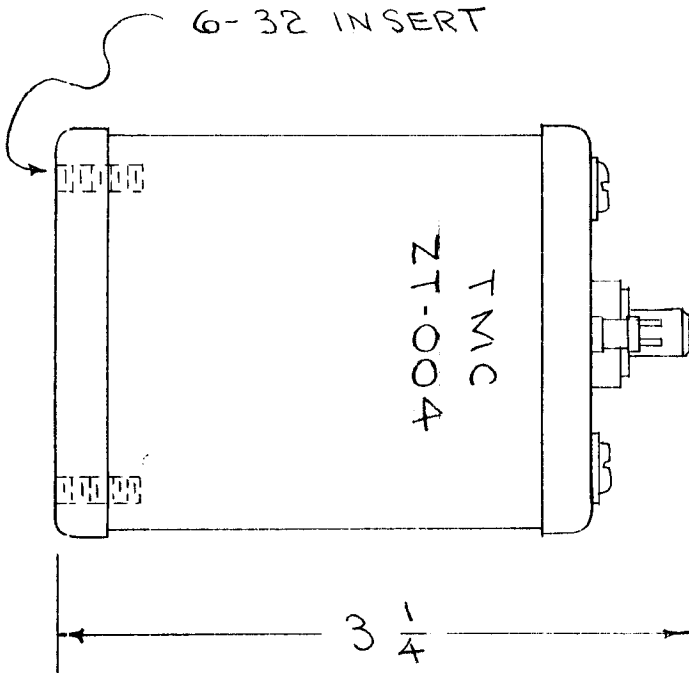
IF IT IS FOUND DESIRABLE TO CHANGE ANY TOLERANCE OR OTHER DETAIL SPECIFIED ON THIS DRAWING NOTIFY THE PURCHASER PROMPTLY.

RR-101

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

USED ON

| MODEL       | PROJECT NO. | ASS'Y. NO. | DATE    |
|-------------|-------------|------------|---------|
| BAC-4-S-20  | 108         | A-117      | 7/22/52 |
| BAC-4-S-500 | 153         | A-233      | 9/6/52  |



DIMENSIONS FOR REF. ONLY

SPECIFICATIONS.

- 1- CASE - STEEL
- 2- TERM. BD. - PHENOLIC
- 3- FILLER - PITCH

| REQ. | ITEM | PART NO.           | DESCRIPTION                  | SYMBOL          |
|------|------|--------------------|------------------------------|-----------------|
|      | #    |                    | THE TECHNICAL MATERIEL CORP. |                 |
|      |      | STOCK SIZE         | MAMARONECK. NEW YORK         |                 |
|      | #    | #                  | RESISTOR                     |                 |
|      |      | MATERIAL           | ZT-004                       |                 |
|      |      | WEIGHT PER PC.     |                              |                 |
|      |      | TYPE & TEMPER      | C.D.D. 2-12-54               |                 |
|      |      | HEAT TREAT. SPEC.  | DRAWN                        | ELEC. DES. APP. |
|      |      | FINISH & SPEC. NO. | MECH. DES. APP.              |                 |
|      |      |                    | CHECKED                      | FINAL APPROVAL  |
|      |      |                    | SUPERCEDES                   |                 |
|      |      |                    | ZT-004                       |                 |

|                     |         |              |      |           |
|---------------------|---------|--------------|------|-----------|
| REDRAWN - NO CHANGE | 2-12-54 | C.D.D.       | JAG  | WDC       |
| ISSUE               | ITEM    | CHANGED FROM | DATE | CN. NO.   |
|                     |         |              |      | DRAFTS    |
|                     |         |              |      | CHECKER   |
|                     |         |              |      | ENG. APP. |

|            |   |   |
|------------|---|---|
| TOLERANCES |   | SCALE 4A-1801   |
| ALL OTHERS | DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± | DRILL, PUNCH, COMMERCIAL STOCK<br>SIZES AND MANUFACTURERS<br>TOLERANCES ARE NOT INCLUDED. |

IF IT IS FOUND DESIRABLE TO CHANGE ANY TOLERANCE OR OTHER DETAIL SPECIFIED ON THIS DRAWING NOTIFY THE PURCHASER PROMPTLY.

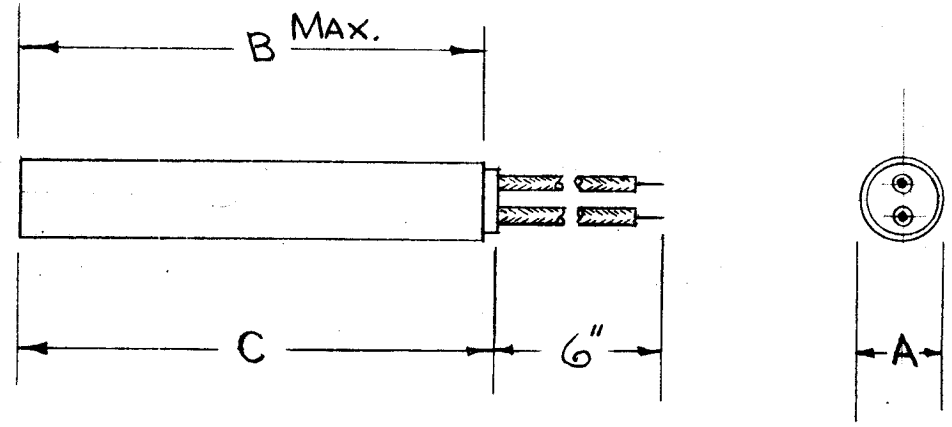
RELEASED

RR 102 C

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

| Req. Per. UNIT | USED ON |             |            |         |
|----------------|---------|-------------|------------|---------|
|                | MODEL   | PROJECT NO. | ASS'Y. NO. | DATE    |
| 4              | XFK     |             | A-146      | 3/15/52 |
|                | LFA     | 109         | A-146      | 9-20-52 |

| TMC NO. | WATTS | OVERALL LENGTH | RECEPTACLE HOLE DIA. A | SHEATH LENGTH B | VOLT.   |
|---------|-------|----------------|------------------------|-----------------|---------|
| RR102-1 | 20    | 2 3/16         | 3/8                    | 2 13/32         | 115 VAC |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |
|         |       |                |                        |                 |         |



DIMENSIONS FOR REF. ONLY

NOTE  
 CARTRIDGE IS BRASS  
 LEADS ARE ASBESTOS COVERED  
 STRANDED MANGANESE NICKEL AND  
 ARE FLEXIBLE.

S401-411 (3A406A)  
 S401-33 (C2X264)

| ISSUE | ITEM | CHANGED FROM                                     | DATE     | CN. NO. | DRAFTS | CHECKER | ENG. APP. |
|-------|------|--|----------|---------|--------|---------|-----------|
| C     |      | UPDATED; 2 13/32 WAS 2 3/8                       | 3-21-66  | 15975   | HLA    | JCB     | JCB       |
| B     | 1    | VOLTAGE COLUMN ADDED                             | 11-23-66 | 3553    | M.F.   | JCB     | JCB       |
| A     | 1    | CAT. NO. WAS C-203<br>WATTS WAS 15<br>6" WAS 10" | 8/18/52  | 1       | C.D.D. | JCB     | JCB       |

| REQ. ITEM | PART NO. | DESCRIPTION  | SYMBOL |
|-----------|----------|--|--------|
|           |          | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK |        |
|           | SEE NOTE | ELEMENT, HEATER                                      |        |
|           |          | XTAL OVEN  |        |
|           |          | C.D.D. 9-16-52                                       |        |
|           |          | A.J.J.   |        |
|           |          | W.D.C. 10-25   |        |
|           |          | RR-102   | C      |

| TOLERANCES  | SCALE FULL.   |
|---|---|
| ALL OTHERS<br>DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± | DRILL, PUNCH, COMMERCIAL STOCK<br>SIZES AND MANUFACTURERS<br>TOLERANCES ARE NOT INCLUDED. |

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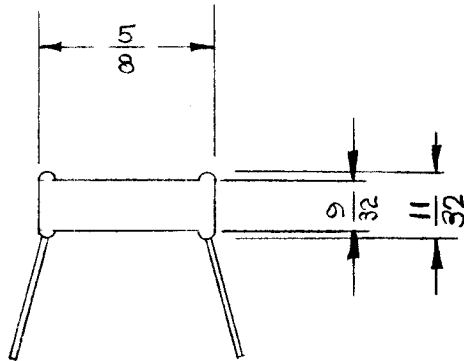
# STANDARD DRAWING

RR-104-D

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

USED ON

| MODEL | PROJECT NO. | ASS'Y. NO. | GATE |
|-------|-------------|------------|------|
|       |             |            |      |



DIMENSIONS FOR REFERENCE ONLY

1/2 WATT  
 1 OHM TO 1 MEGOHM  
 ± 1% TOLERANCE  
 500 V - RECOMMENDED VOLTAGE.

A three or four digit number may be used depending upon the accuracy requirement. In every case, the last digit will indicate the number of zeros.

- e.g. RR-104-5R00 = 5.0 Ω
- 5R050 = 5.05 Ω
- 501 = 500 Ω
- 5050 = 505 Ω
- 5051 = 5050 Ω

REF: CONTINENTAL CARBON FILM TYPE NR20

| REQ.               | ITEM | PART NO. | DESCRIPTION   | SYMBOL |
|--------------------|------|----------|---|--------|
| #                  |      |          | <b>THE TECHNICAL MATERIEL CORP.</b><br>MAMARONECK, NEW YORK |        |
| STOCK SIZE         |      |          |   |        |
| #                  |      |          | RESISTOR, FIXED   |        |
| MATERIAL           |      |          | METALLIZED FILM   |        |
| WEIGHT PER PC.     |      |          | C.D.D. 1-13-53  |        |
| TYPE & TEMPER      |      |          | ORB<br>DRAWN<br>ELEC. DES. APP.                             |        |
| HEAT TREAT. SPEC.  |      |          | MECH. DES. APP.   |        |
| FINISH & SPEC. NO. |      |          | G.T.O.<br>CHECKED<br>FINAL APPROVAL                         |        |
|                    |      |          | RR-104  |        |
|                    |      |          | D   |        |

| ISSUE | ITEM | CHANGED FROM  | DATE    | CN. NO. | DRAFTS | CHECKER | ENG. APP. |
|-------|------|---|---------|---------|--------|---------|-----------|
| D     | 1    | RELOC. 9/32; ADD. 11/32"  | 4/4/66  | 16064   | HLA    | ORB     | QC        |
| C     | 1    | Manufacture Designation Clarified - Range was 1/2 to 5 Meg TYPE NR-20 WAS X 1/2 | 2/13/67 | 3       | HLA    | P.L.K.  | A.J.J.    |
| B     | 1    | EFFECTIVE FEB. 1955   | 5/17/55 | 2       | HLA    | C.D.D.  | W.D.E.    |
| A     | 1    | EXPLANATION ADDED TO  | 1/11/54 | CR-7    | C.D.D. | W.D.E.  | W.D.E.    |

| TOLERANCES |   | SCALE |
|------------|---|-------|
| ALL OTHERS | DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± | #     |

DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED.

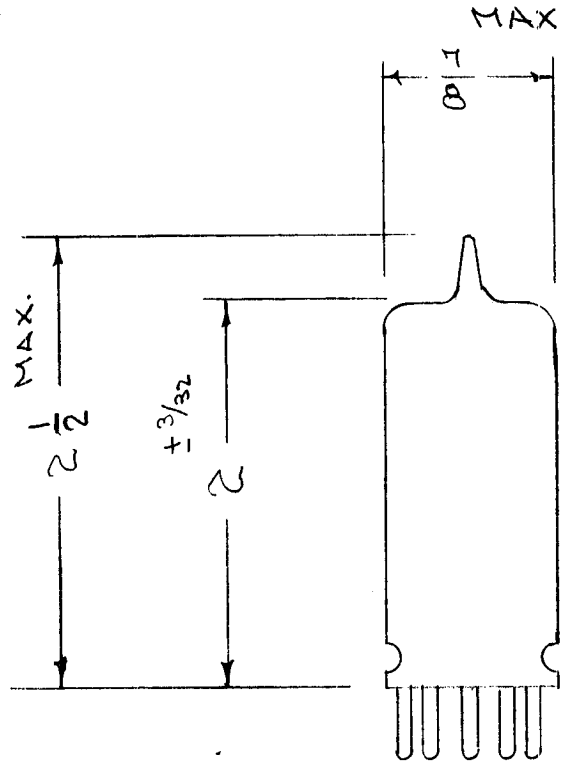
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# STANDARD DRAWING

RR-109 A

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

| REQ. PER UNIT | USED ON |             |            |
|---------------|---------|-------------|------------|
|               | MODEL   | PROJECT NO. | ASS'Y. NO. |
| 1             | PMO-1   | 285         |            |
| 1             | PMO-2   | 285         |            |



SUPPLY VOL. VARIATION 10.1 TO 15.1-V.  
 DESIRED ON TUBES 6.2 TO 6.6-V.  
 REQ. ON AMPERITE 4.3 TO 8.5-V.  
 CURRENT .43 TO .49 A.  
 BULB T6-1/2  
 BASE Ø PIN NOVAL  
 BASE WIRING PINS 2-7

REF: AMPERITE CO. INC. AHTFA

DIM. FOR REF. ONLY

| REQ. | ITEM | PART NO.           | DESCRIPTION  | SYMBOL                          |
|------|------|--------------------|--|---------------------------------|
|      |      |                    | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK. NEW YORK |                                 |
|      |      | STOCK SIZE         | TUBE, BALLAST  |                                 |
|      |      | MATERIAL           | WEIGHT PER PC.                                       |                                 |
|      |      | TYPE & TEMPER      | COND. 8-27-54  | A. J. J. <i>WJC</i>             |
|      |      | HEAT TREAT. SPEC.  | DRAWN  | ELEC. DES. APP. MECH. DES. APP. |
|      |      | FINISH & SPEC. NO. | CHECKED  | FINAL APPROVAL                  |

| A          |             | 2 1/2 MAX. WAS 2 3/8, 4.3V WAS 3.9 | 12-18-64       | 13104   | HCA    | <i>[Signature]</i> | <i>[Signature]</i> |
|------------|-------------|------------------------------------|----------------|---|--------|--------------------|--------------------|
| ISSUE      | ITEM        | CHANGED FROM                       | DATE           | CN. NO.   | DRAFTS | CHECKER            | ENG. APP.          |
| TOLERANCES |             |                                    | SCALE          |   |        |                    |                    |
| ALL OTHERS | DEC. DIM. ± | FRAC. DIM. ±                       | ANGULAR DIM. ± | DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED. |        |                    |                    |

RR-109 A

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# STANDARD DRAWING

RR-110B

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

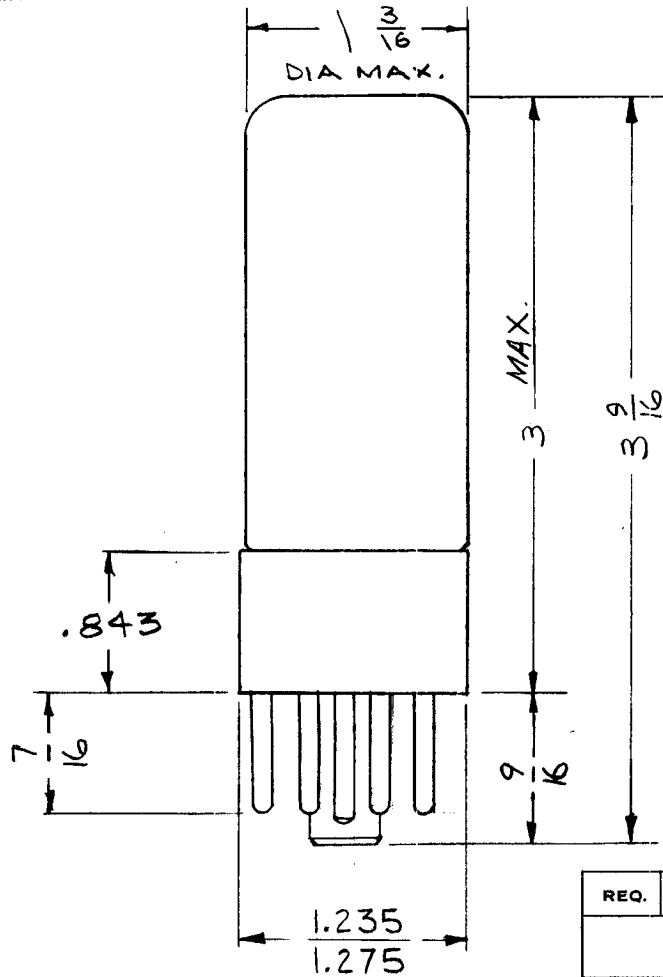
USED ON

MODEL

PROJECT NO.

ASS'Y. NO.

DATE



Specifications;

Supply voltage: 10.7 to 14.5 Volts

Desired on tubes: 6.2 to 6.4 Volts

Required on Amperite: 4.5 to 8.1 Vol

Current: .88 to .92 Amps.

Bulb: T9 Glass

Base: Intermediate Shell Octal, JETEC No. B6-8 (Pins 1,2, 5,7,8)

Base wiring pins: 2&7

Ref. Amperite 9-4A

| REQ.               | ITEM | PART NO.       | DESCRIPTION                  | SYMBOL          |
|--------------------|------|----------------|------------------------------|-----------------|
|                    |      |                | THE TECHNICAL MATERIEL CORP. |                 |
|                    |      |                | MAMARONECK. NEW YORK         |                 |
|                    |      |                | RESISTOR, CURRENT REGULATING |                 |
| STOCK SIZE         |      |                |                              |                 |
| MATERIAL           |      | WEIGHT PER PC. |                              |                 |
| TYPE & TEMPER      |      |                | M.H.S. 10/29/54              | K2              |
| HEAT TREAT. SPEC.  |      |                | drawn                        | ELEC. DES. APP. |
| FINISH & SPEC. NO. |      |                | checked                      | MECH. DES. APP. |
|                    |      |                | FINAL APPROVAL               |                 |
|                    |      |                | RR-110                       | B               |

| B     | 1    | DWG UPDATED & REVISED | 10/29/54 | 10/165  | M.H.S. | K2      | A.J.J.    |
|-------|------|-----------------------|----------|---------|--------|---------|-----------|
| A     | 1    | SPECS. ADDED          | 10-29-54 | 1       | M.H.S. | K2      | A.J.J.    |
| ISSUE | ITEM | CHANGED FROM          | DATE     | CN. NO. | DRAFTS | CHECKER | ENG. APP. |

TOLERANCES

SCALE

ALL OTHERS

DEC. DIM. ±  
FRAC. DIM. ±  
ANGULAR DIM. ±

DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED.

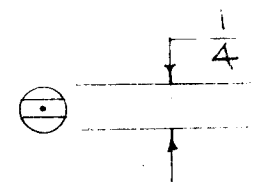
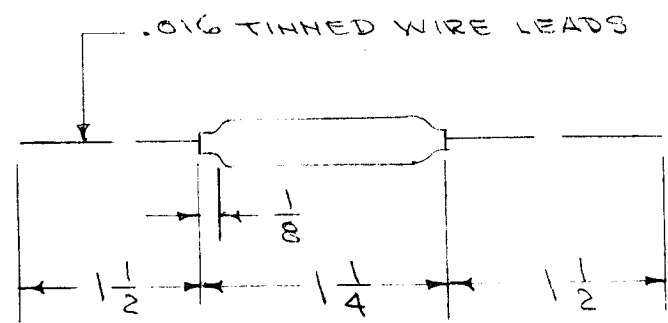
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RR-112

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

| USED ON |             |            |      |
|---------|-------------|------------|------|
| MODEL   | PROJECT NO. | ASS'Y. NO. | DATE |

|            |          |
|------------|----------|
| T.M.C. NO. | VECO NO. |
| RR-112-1   | 46A2     |



COLD RESISTANCE  
 0° C — 138 K  
 25° C — 60 K  
 50° C — 29 K

TEMP. COEFF. AT 25° C  
 - 3.13%

MAX. CONTINUOUS CURRENT  
 AC - 15 ma  
 DC - 1 ma

REF: VICTORY ENGINEERING CORP.

| REQ.               | ITEM | PART NO.       | DESCRIPTION                         | SYMBOL                          |
|--------------------|------|----------------|-------------------------------------|---------------------------------|
|                    |      |                | <b>THE TECHNICAL MATERIEL CORP.</b> |                                 |
| STOCK SIZE         |      |                | MAMARONECK, NEW YORK                |                                 |
|                    |      |                | THERMISTOR                          |                                 |
| MATERIAL           |      | WEIGHT PER PC. |                                     |                                 |
| TYPE & TEMPER      |      |                | ORD. 7-27-55                        | K2                              |
| HEAT TREAT. SPEC.  |      |                | DRAWN                               | ELEC. DES. APP. MECH. DES. APP. |
| FINISH & SPEC. NO. |      |                | A.J. J.<br>FINAL APPROVAL           |                                 |

| ISSUE      | ITEM | CHANGED FROM | DATE  | CN. NO. | DRAFTS | CHECKER | ENG. APP. |
|------------|------|--------------|---|---------|--------|---------|-----------|
| TOLERANCES |      |              | SCALE   |         |        |         |           |
| ALL OTHERS |      |              | DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED. |         |        |         |           |

RR-112





THE CONTENTS OF THIS DRAWING ARE THE EXCLUSIVE PROPERTY OF THE TECHNICAL MATERIEL CORP. ITS UNAUTHORIZED USE FOR REPRODUCTION IN WHOLE OR IN PART IS STRICTLY FORBIDDEN.

REQ. PER UNIT

USED ON

MODEL

ASS'Y. NO.

DATE

RTB-12

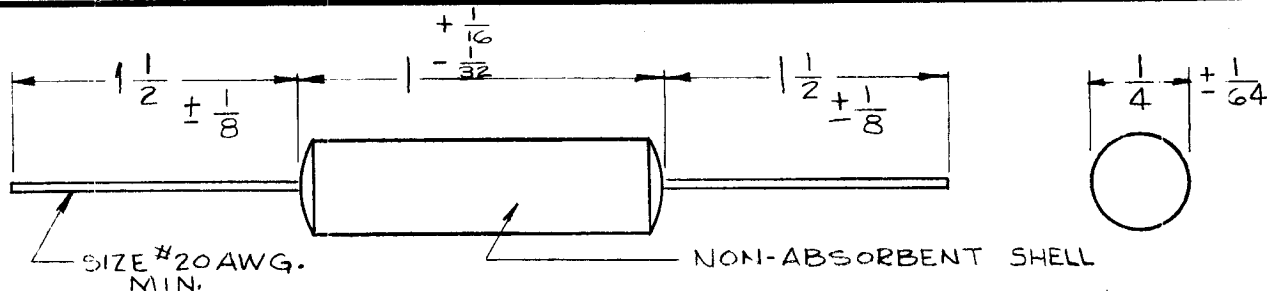
2-18-63

RR-114

F

**STANDARD RESISTANCE VALUES (OHMS)**

|     |       |         |
|-----|-------|---------|
| 1   | 100   | 1,100   |
| 1.5 | 120   | 1,200   |
| 2   | 150   | 1,400   |
| 3   | 200   | 1,500   |
| 4   | 220   | 1,800   |
| 5   | 250   | 2,000   |
| 7.5 | 300   | 2,200   |
| 10  | 350   | 2,500   |
| 12  | 400   | 3,000   |
| 15  | 450   | 4,000   |
| 20  | 500   | * 5,000 |
| 25  | 600   |         |
| 30  | 700   |         |
| 35  | 750   |         |
| 40  | 800   |         |
| 50  | 900   |         |
| 75  | 1,000 |         |



RESISTANCE VALUES 4000Ω AND BELOW TO BE NON-INDUCTIVE. VALUES ABOVE 4000Ω ARE STANDARD. HIGHER VALUES THAN SHOWN, ARE AVAILABLE

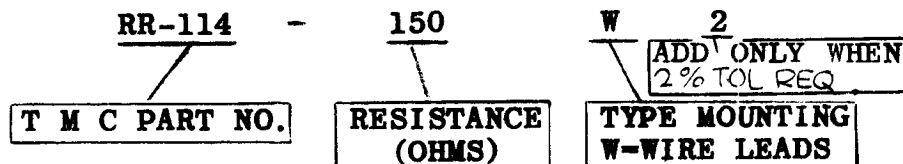
NOTE: 140 OHMS NOT AVAILABLE; USE 150 OHMS.

STANDARD TOLERANCE ±5%

OTHER TOLERANCE ±2%

\* BODY DIA.  $\frac{21}{64}$  MAX.

T M C PART NUMBER TO BE IN THE FOLLOWING FORM:



\* S401-373

REF: S401-49 TYPE 453E "KOOLOHM" NON-INDUCTANCE  
TYPE 452E "KOOLOHM" STANDARD

**STANDARD DRAWING**

|   |             |   |         |        |         |           |
|---|-------------|---|---------|--------|---------|-----------|
| 8   | 22          | 16763                                     | RM      | gc     | gc      |           |
| SYMBOL  | DESCRIPTION | DATE                                      | CH. NO. | DRAFTS | CHECKER | ENG. APP. |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES |             | SCALE                                     |         |        |         |           |
| DECIMALS<br>.X ± .05<br>.XX ± .01<br>.XXX ± .005  | TOLERANCES  | FRACTIONS<br>± 1/64<br>ANGLES<br>± 0° 30' | CODE    |        |         |           |

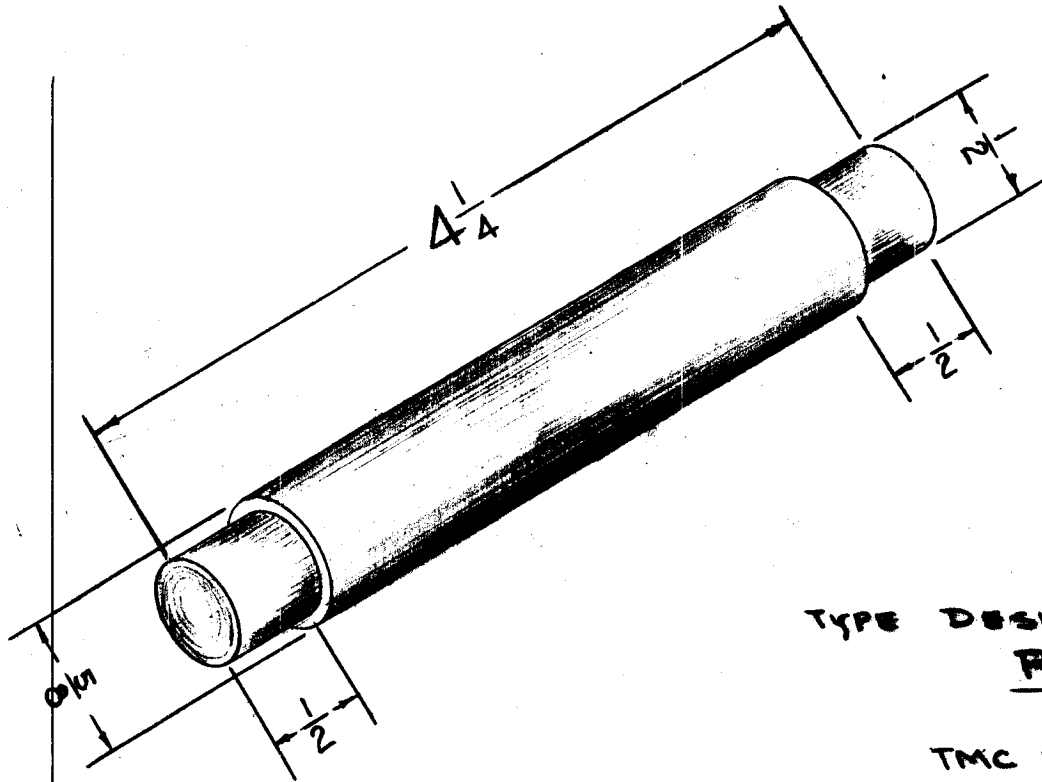
| REQ. ITEM | PART NO. | DESCRIPTION  | SYMBOL                          |
|-----------|----------|--|---------------------------------|
|           |          | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK |                                 |
|           |          | RESISTOR, FIXED, W. W.                               |                                 |
|           |          | 5 WATTS  |                                 |
|           |          | DRAWN  | CHECKED                         |
|           |          | HEAT TREAT. SPEC.                                    | FINAL APPROVAL                  |
|           |          | FINISH & SPEC. NO.                                   | ELEC. DES. APP. MECH. DES. APP. |

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MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

RR-115 C

| REQ. PER UNIT | USED ON |             |            |         |
|---------------|---------|-------------|------------|---------|
|               | MODEL   | PROJECT NO. | ASS'Y. NO. | DATE    |
| 6             | RTB-1   |             |            | 8-19-55 |
| 3             | RTB-2   |             |            | 7/27/56 |
| 3             | RTB-3   |             |            | N       |
|               | RTB-12  |             |            | 5-3-67  |



MECHANICAL SPECIFICATIONS  
CASE - BAKELITE  
CONTACTS - BRASS

TYPE DESIGNATION TO BE IN FOLLOWING FORM

RR-115-140

TMC No

OHMS

# STANDARD DRAWING

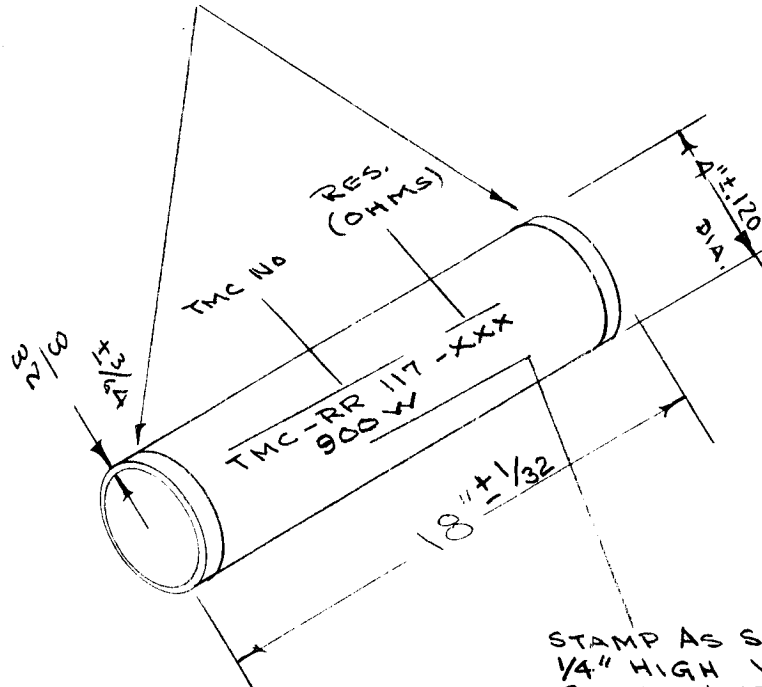
| ISSUE | ITEM | CHANGED FROM  | DATE     | CN. NO. | DRAFTS | CHECKER | ENG. APP. |
|-------|------|---|----------|---------|--------|---------|-----------|
| C     | 2    | OBsolete NOTE DELE. ON TITLE, 10 WATTS WAS 5 WATTS. | 11-12-64 | 12915   | SR     |         |           |
| B     | 1    | DIRECTLY REPLACED BY RR-133-X                       | 3-20-64  | 8594    |        |         |           |
| A     | 1    | TYPE DESIG. ADDED                                   | 7-14-64  | 1       |        |         |           |

| TOLERANCES |   | SCALE   |
|------------|---|---|
| ALL OTHERS | DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± | DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED. |

| REQ. | ITEM | PART NO.           | DESCRIPTION  | SYMBOL          |
|------|------|--------------------|--|-----------------|
|      |      |                    | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK |                 |
|      |      | STOCK SIZE         | RESISTOR   |                 |
|      |      | MATERIAL           | 10 WATTS   |                 |
|      |      | WEIGHT PER PC.     | 10 8-19-55   | ARB             |
|      |      | TYPE & TEMPER      | DRAWN  | ELEC. DES. APP. |
|      |      |                    | MECH. DES. APP.                                      |                 |
|      |      | HEAT TREAT. SPEC.  | CHECKED  | FINAL APPROVAL  |
|      |      | FINISH & SPEC. NO. | 1A-1070  | RR-115 C        |



CONTACT BANDS -  
FIRED-ON SILVER 7/16 ±, 12.5 WIRE



|               |         |            |        |
|---------------|---------|------------|--------|
| REQ. PER UNIT | USED ON |            |        |
|               | MODEL   | ASS'Y. NO. | DATE   |
|               |         |            | RR 117 |
|               |         |            | G      |

| CORNING No. | RESIS. (OHMS) |
|-------------|---------------|
|             | 320           |
|             | 140           |
|             | 600           |
|             | 100           |

# STANDARD DRAWING

INCLUDES OUT OF ROUND

TYPE DESIGNATION TO BE IN FOLLOWING FOR  
RR 117 - 320

TMC NO      RESIS. (OHMS)

NOTE 8  
RESISTANCE TOL ± 10%

NO LONGER AVAILIABLE  
REPLACED BY RR 142-

|   |   |                            |      |          |       |        |        |        |
|---|---|----------------------------|------|----------|-------|--------|--------|--------|
| H |   | NOTE: NO LONGER AVAIL      | ADD  | 4-18-90  |       | SDL    |        |        |
| G |   | TOL. ADDED TO DIM          |      |          |       |        |        |        |
|   |   | DIM. FOR REF DELETED       |      | 10-2-64  | 12503 | J.F.   | (2)    | J.F.   |
| F | 1 | ON CHART (OHMS), 100 ADDED |      | 8-26-64  | 12223 | WB     | 90/2   | J.C.   |
| E | 1 | 600 ADDED TO RESIS (OHMS)  |      | 2-7-61   | 4105  | WAT    | 90/2   | STMA   |
| D | 1 | RES. TOL ADDED             | 7/16 |          |       |        |        | AND    |
| C | 1 | WATTAGE STAMPING ADDED     |      | 10/21/57 | 3     | J.H.W. | 16     | A.T.J. |
| B | 1 | 900 W was 800W             |      | 10/16/57 | 2     | J.H.W. | J.H.W. | ARB    |
| A | 1 | TYPE DESIGNATION ADDED     |      | 1/7/57   | 1     | J.H.W. | 16     | ARB    |

|                |      |   |      |         |        |         |           |
|----------------|------|---|------|---------|--------|---------|-----------|
| ISSUE          | ITEM | CHANGED FROM  | DATE | CH. NO. | DRAFTS | CHECKER | ENG. APP. |
| TOLERANCES     |      | SCALE:  |      |         |        |         |           |
| DEC. DIM. ±    |      | MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. |      |         |        |         |           |
| FRAC. DIM. ±   |      | REM VE ALL BURRS AND SHARP EDGES  |      |         |        |         |           |
| ANGULAR DIM. ± |      |   |      |         |        |         |           |

| REQ. ITEM | PART NO.   | DESCRIPTION  | SYMBOL          |
|-----------|------------|--|-----------------|
|           |            | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK. NEW YORK |                 |
|           | STOCK SIZE | RESISTOR, FIXED                                      |                 |
|           | MATERIAL   | 900 WATTS  |                 |
|           |            | CD 1/4   |                 |
|           |            | DRAWN  | CHECKED         |
|           |            | ARB  |                 |
|           |            | ELEC. DES. APP.                                      | MECH. DES. APP. |
|           |            | RR 117   | G               |

APPLICATION

REVISIONS

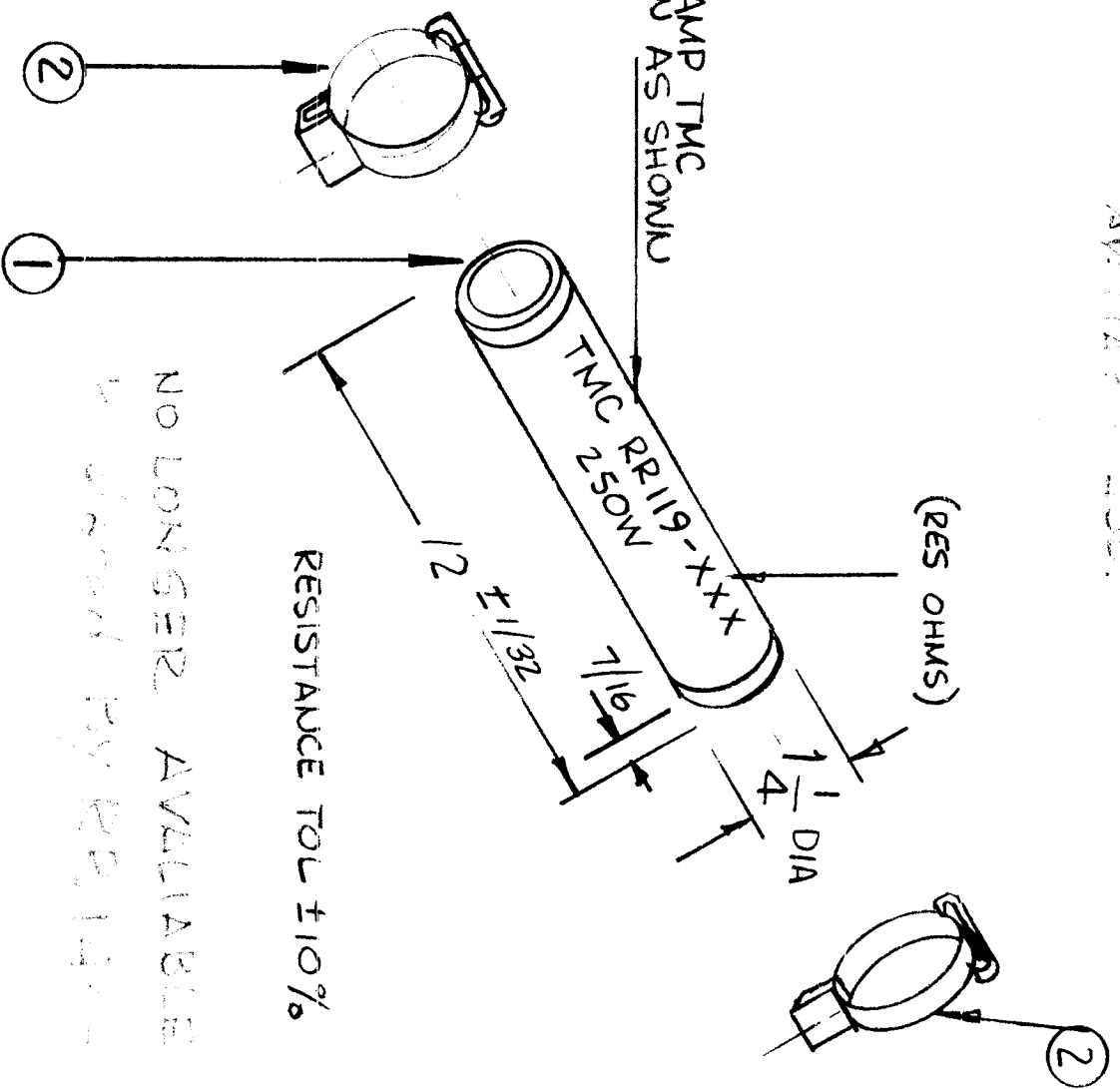
| QTY | MODEL USED ON | ASS'Y NO. | LTR | DESCRIPTION       | DATE    | E.M.N.O | DRAFT | CHKD | APPD |
|-----|---------------|-----------|-----|-------------------|---------|---------|-------|------|------|
|     | TER 500       |           | G   | REVISED F REDRAWN | 7-28-84 | 21979   |       |      |      |

RESISTANCE AVAILABLE

|     |
|-----|
| 50  |
| 140 |
| 300 |

NOTE: NO MORE TO BE AVAILABLE FOR USE.

STAMP TMC P/N AS SHOWN



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES

| DECIMALS    | FRACTIONS |
|-------------|-----------|
| .X ± .06    | 1/64      |
| .XX ± .01   | ANGLES    |
| .XXX ± .005 | ° ± .30°  |

| REQ'D | ITEM | PART NUMBER | DESCRIPTION         | SYM. |
|-------|------|-------------|---------------------|------|
| 2     | 2    | CU178       | RETAINER CLIP       |      |
| 1     | 1    | RR138-XXX   | RESISTOR FIXED 250W |      |

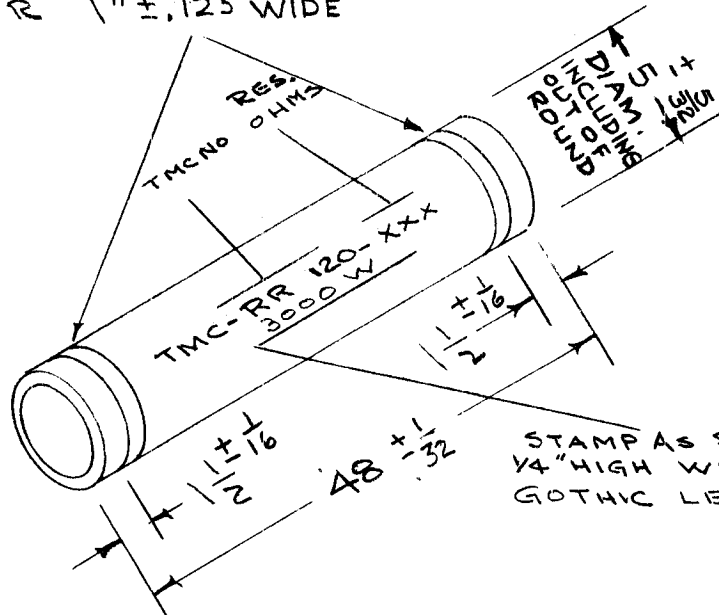
  

| LIST OF MATERIAL |      |                              |  |
|------------------|------|------------------------------|--|
| FINAL APPROVAL   | DATE | THE TECHNICAL MATERIEL CORP. |  |
| MECH. DES.       | DATE | MAMARONECK, NEW YORK         |  |
| ELECT. DES.      | DATE | RESISTOR, FIXED, 250W        |  |
| CHECKED          | DATE |                              |  |
| DRAWN            | DATE |                              |  |
| REDRAWN          | DATE |                              |  |

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|       |                 |         |       |
|-------|-----------------|---------|-------|
| SIZE  | CODE IDENT. NO. | DWG NO. | ISSUE |
| A     | 82679           | RR119   | H     |
| SCALE | SHEET           |         | OF    |

CONTACT BANDS, FIRED ON SILVER 1" ± .125 WIDE



STAMP AS SHOWN  
1/4" HIGH WHITE  
GOTHIC LETTERING

RESISTANCE TOL. ± 5%

| REQ. PER UNIT | USED ON  |            |         |
|---------------|----------|------------|---------|
|               | MODEL    | ASS'Y. NO. | DATE    |
| 2             | TER-5000 | A-143(8)   | 3-21-57 |

RR 120 L

NOTICE TO PERSONS RECEIVING THIS DRAWING

| CORNING NO.  | RESIS. (OHMS) |
|--------------|---------------|
| 870253 REV.1 | 300           |
|              | 140           |
|              | 325           |
|              | 100           |
|              | 420           |

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Property of

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

TYPE DESIGNATION TO BE IN FOLLOWING FORM

RR-120-300

TMC NO RESISTANCE (OHMS)

NO LONGER AVAILABLE  
REPLACED BY RR142

STANDARD DRAWING

|   |  |          |       |      |      |      |
|---|--|----------|-------|------|------|------|
| L | NOTE: NO LONGER AVAILABLE ADD                                  | 10-1-88  |       | GDL  | —    | AB   |
| K | CORNING NO. FOR 300Ω WAS 878253                                | 9/29/69  |       | K.H. | RPD  | CC   |
| J | ADDED 420 OHMS   | 7-20-66  | 16597 | RME  | QCB  | MM   |
| H | TOL ADDED TO DIM DIM FOR REF DELETED                           | 10/2/64  | 12503 | J.R. | @    | SC   |
| G | 100Ω Added   | 3/5/59   | 850   | J.R. | J.R. | AMB  |
| F | 1 DIAM. "OUT OF ROUND" WAS .060 - IT IS NOW INCLUDED IN 515/32 | 2/2/59   | 766   | V6   | G.G. | AMB  |
| E | 2 325Ω ADDED RES. TOL ADDED                                    | 12/30/58 | 612   | J.R. |      | G.G. |
| D | 1 WATTAGE STAMPING ADDED                                       | 10/21/57 | 4     | J.R. | V6   | ATT  |
| C | 2 CORNING NO. ADDED 1 ±5/32 ADDED TO 5"D.                      | 9-57     | 3     | SC   | J.R. | AMB  |
| B | 1 5"DIA. WAS 4 7/8"  | 4-4-57   | 2     | SC   | J.R. | AMB  |
| A | 1 TYPE DESIGNATION ADDED                                       | 1/7/57   | 1     | J.R. | V6   | AMB  |

| ISSUE          | ITEM | CHANGED FROM   | DATE | CH. NO. | DRAFTS | CHECKER | ENG. APP. |
|----------------|------|--|------|---------|--------|---------|-----------|
| TOLERANCES     |      | SCALE: <del>1/2" = 1"</del>  |      |         |        |         |           |
| DEC. DIM. ±    |      | MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTI N. REMOVE ALL BURRS AND SHARP EDGES |      |         |        |         |           |
| FRAC. DIM. ±   |      |  |      |         |        |         |           |
| ANGULAR DIM. ± |      |  |      |         |        |         |           |

| REQ. ITEM          | PART NO.          | DESCRIPTION  | SYMBOL          |
|--------------------|-------------------|--|-----------------|
|                    |                   | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK |                 |
| STOCK SIZE         |                   | RESISTOR, FIXED                                      |                 |
| MATERIAL           |                   | 3000 WATTS   |                 |
| TYPE & TEMPER      | HEAT TREAT. SPEC. | DRAWN  | CHECKED         |
| FINISH & SPEC. NO. |                   | ELEC. DES. APP.                                      | MECH. DES. APP. |

ODD 10/21/56 J.R. A.T.J.  
RR 120 L



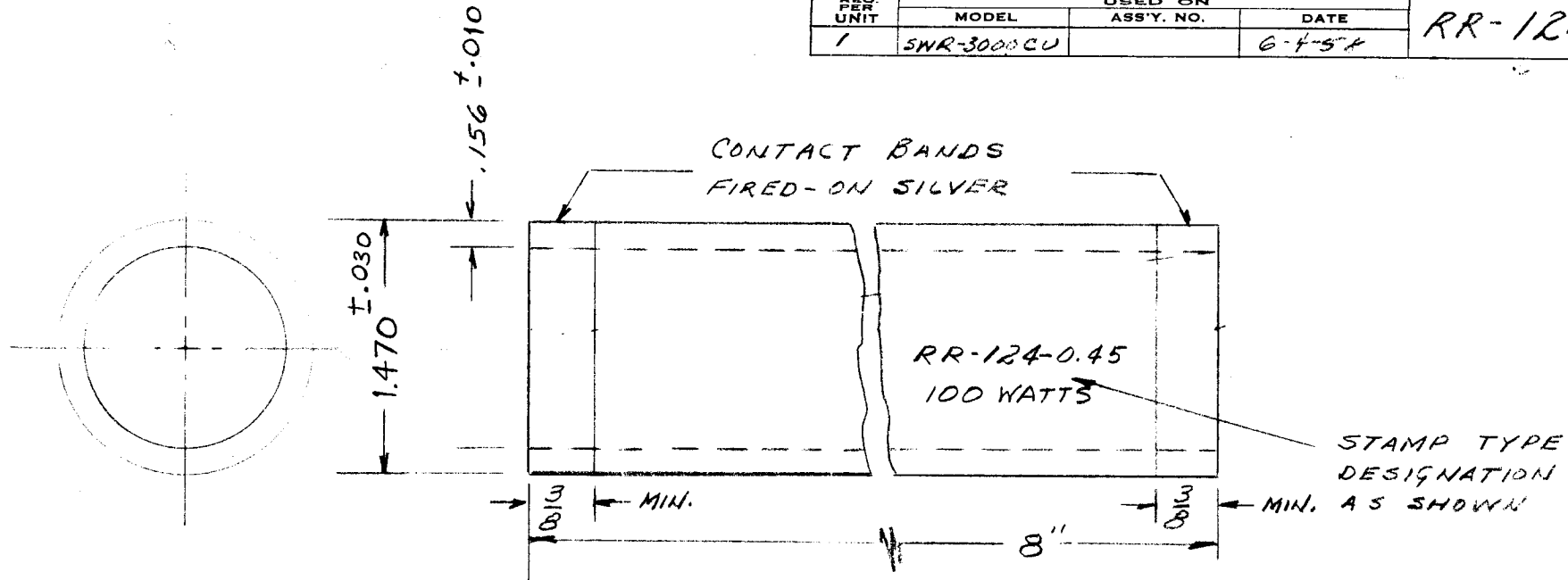






| REQ. PER UNIT | USED ON     |            |        |
|---------------|-------------|------------|--------|
|               | MODEL       | ASS'Y. NO. | DATE   |
| 1             | SWR-3000 CU |            | 6-4-54 |

RR-124 C



MATERIAL - CARBON DEPOSIT  
ON GLASS FORM  
RESISTANCE - 0.45 OHMS +10%-20%  
GLASS FORM - PYREX GLASS

TYPE DESIGNATION TO BE IN FOLLOWING FORM

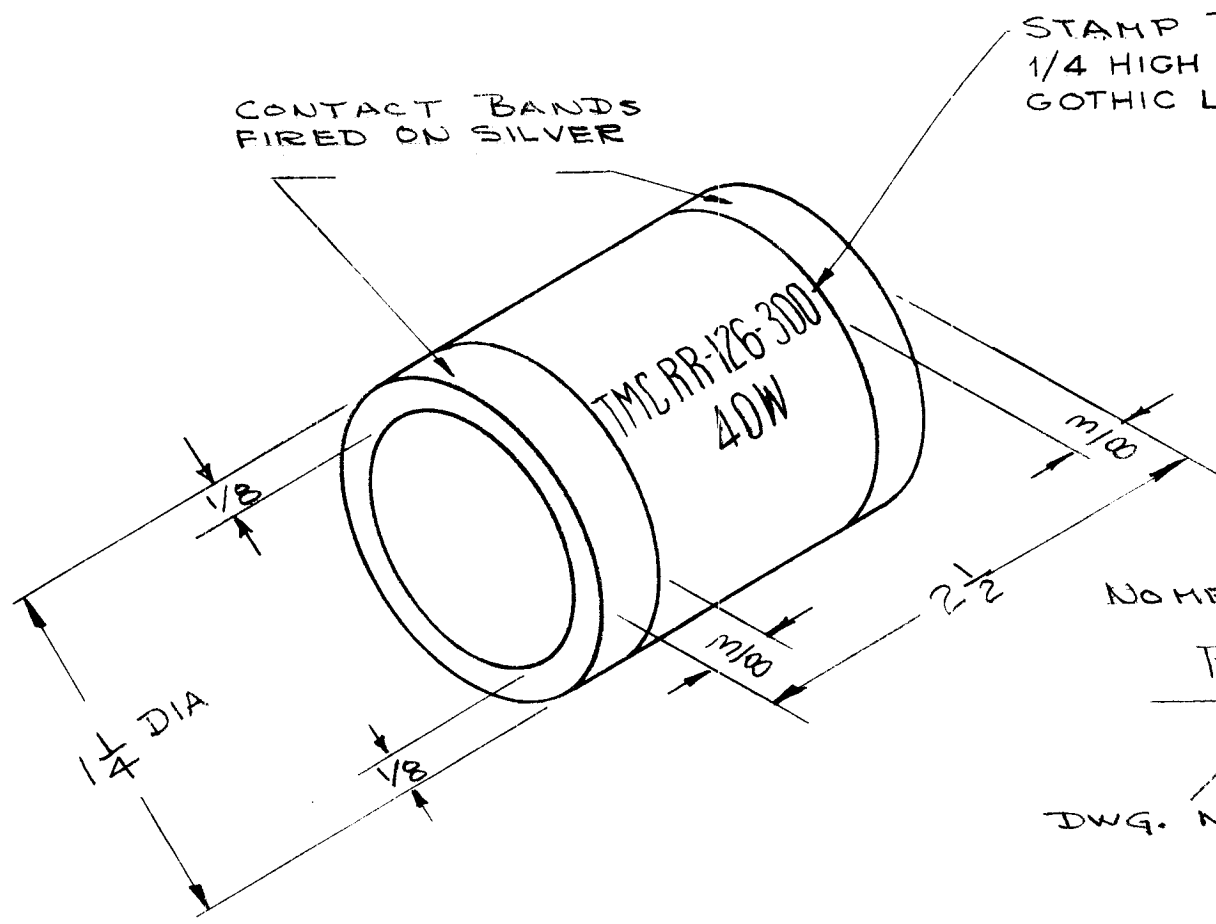
RR - 124 - 0.45  
TMC DWG. NO.                  OHMS

REF- FILM OHH

| REQ. ITEM         | PART NO.   | DESCRIPTION   | SYMBOL   |                 |         |                 |          |               |                   |       |         |                |
|-------------------|--|---|--|-----------------|---------|-----------------|----------|---------------|-------------------|-------|---------|----------------|
| C 1               | Frac. Dim was 1/64   | 3-1-61 4287 RU  | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK<br>RESISTOR, FIXED, 100 WATTS |                 |         |                 |          |               |                   |       |         |                |
| B 2               | DIM. .156 ±0.010 WAS .156 ±0.010 ±.005                     | 2-11-61 A143 M.A.F.   |  |                 |         |                 |          |               |                   |       |         |                |
| A 1               | DIM. 1.470 ±0.030 WAS 1.4375 ±.005<br>Solder spots Deleted | 8/21/58 431 16  |  |                 |         |                 |          |               |                   |       |         |                |
| ISSUE ITEM        | CHANGED FROM   | DATE  | CH. NO.  | DRAFTS          | CHECKER | ENG. APP.       | MATERIAL | TYPE & TEMPER | HEAT TREAT. SPEC. | DRAWN | CHECKED | FINAL APPROVAL |
| TOLERANCES        |  | SCALE: FULL   |  |                 |         |                 |          |               |                   |       |         |                |
| DEC. DIM. ±       |  | MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. |  |                 |         |                 |          |               |                   |       |         |                |
| FRAC. DIM. ± 1/16 |  | REMOVE ALL BURRS AND SHARP EDGES  |  |                 |         |                 |          |               |                   |       |         |                |
| ANGULAR DIM. ±    |  | FINISH & SPEC. NO.  |  | ELEC. DES. APP. |         | MECH. DES. APP. |          | RR-124        |                   | C     |         |                |



| REQ. PER UNIT | USED ON |            |        |
|---------------|---------|------------|--------|
|               | MODEL   | ASS'Y. NO. | DATE   |
| 1             | GPT IOK | PA SECT.   | 2-6-59 |



TOL: 5%

NOMENCLATURE TO BE AS SHOWN

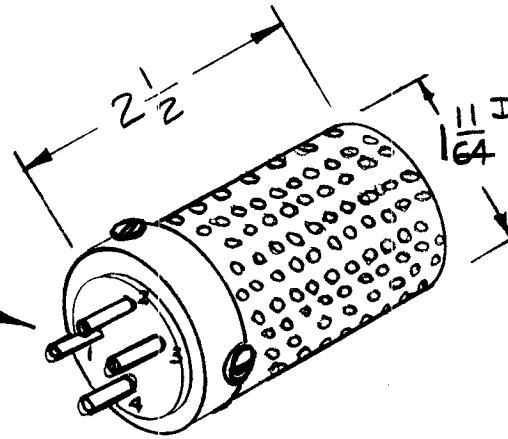
RR-126-300

DWG. NO.

OHMS

| ISSUE   | ITEM | CHANGED FROM               | DATE    | CH. NO. | DRAFTS | CHECKER | ENG. APP. | REQ.   | ITEM | PART NO.         | DESCRIPTION  | SYMBOL  |                |
|---|------|----------------------------|---------|---------|--------|---------|-----------|--|------|------------------|--|---------|----------------|
|   |      |                            |         |         |        |         |           |  |      |                  | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK |         |                |
| B   | 1    | DIA WAS 1/200<br>TOL ADDED | 5/12/59 | 970     | JHE    | S.G.    | AMB       |  |      |                  | RESISTOR, FIXED                                      |         |                |
| A   | 1    | CAT. # ADDED               | 2/8/59  | 733     | JHE    | S.G.    | AMB       |  |      |                  | 40 W   |         |                |
| TOLERANCES                                    |      |                            |         |         |        |         |           | SCALE: S-401-27 (MR-1500-2500)<br>3-401-42   |      |                  |  |         |                |
| DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± |      |                            |         |         |        |         |           | MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES |      |                  |  |         |                |
|   |      |                            |         |         |        |         |           | TYPE & TEMPER  |      | HEATTREAT. SPEC. | DRAWN  | CHECKED | FINAL APPROVAL |
|   |      |                            |         |         |        |         |           | FINISH & SPEC. NO.   |      | ELEC. DES. APP   | MECH. DES. APP                                       |         |                |
|   |      |                            |         |         |        |         |           |  |      | J.C. BIELE       | JHE  | AMB     | RR-126 B       |

|               |         |           |             |        |   |
|---------------|---------|-----------|-------------|--------|---|
| REQ. PER UNIT | USED ON |           |             | RR-128 | B |
|               | MODEL   | ASSY. NO. | DATE        |        |   |
| 1             | TU-2    | ATS-2     | JULY 6-1959 |        |   |



Element Connected to Pins 2 & 4

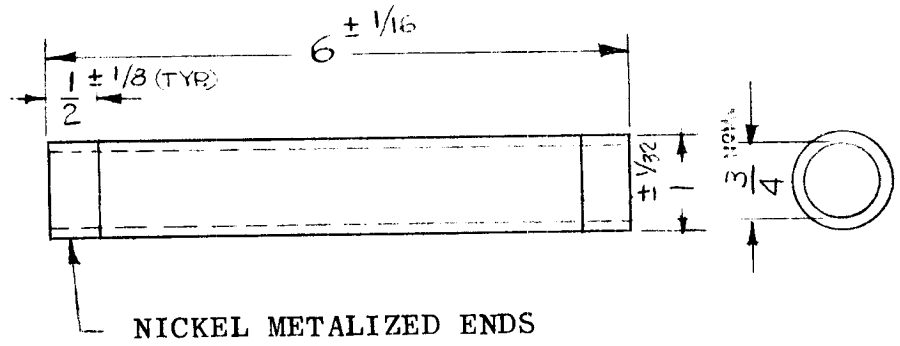
TEMPERATURE COEFFICIENT:  
 • 2 % R.H. Per Degree Fahrenheit  
 from 32° F To 104° F.  
 POWER - 117 Volts, 50/60 CPS  
 ACCURACY - ± 3 %  
 CASE - 20 GA. C.R.S. Perforated  
 Nickel Plated

Note - Manufacturer will Assemble Element & Case.

REF: Use Socket TMC # TS-144

| ISSUE   | ITEM | CHANGED FROM                   | DATE   | CH. NO. | DRAFTS    | CHECKER | ENG. APP.  | REQ. ITEM | PART NO. | DESCRIPTION  | SYMBOL                    |                |                              |
|---|------|--------------------------------|--|---------|-----------|---------|------------|-----------|----------|--|---------------------------|----------------|------------------------------|
|   |      |                                |  |         |           |         |            |           |          | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK, NEW YORK | RESISTOR-HUMIDITY SENSING |                |                              |
| B   | 1    | Additional Specs & Dim. Added. | 10/2/59  | 1409    | 16        |         | <i>CRB</i> |           |          |  |                           | STOCK SIZE     |                              |
| A   | -    | HOUSING ASSY ADDED             | 8/21/57  | 1217    | <i>HD</i> | P.R.    | <i>CRB</i> |           |          | MATERIAL   |                           |                |                              |
| TOLERANCES                                    |      |                                | SCALE: 5401-67 Model 2001 (Element 2C-E)   |         |           |         |            |           |          |  | <i>LOPILLO</i><br>7-6-59  | <i>CRB</i>     |                              |
| DEC. DIM. ±<br>FRAC. DIM. ±<br>ANGULAR DIM. ± |      |                                | MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES |         |           |         |            |           |          |  | DRAWN<br><i>CG</i>        | CHECKED        | FINAL APPROVAL<br><i>CRB</i> |
|   |      |                                |  |         |           |         |            |           |          |  | ELEC. DES. APP            | MECH. DES. APP | RR-128 B                     |
|   |      |                                |  |         |           |         |            |           |          |  |                           |                |                              |

|               |           |            |          |       |   |
|---------------|-----------|------------|----------|-------|---|
| REQ. PER UNIT | USED ON   |            |          | RR134 | Ø |
|               | MODEL     | ASS'Y. NO. | DATE     |       |   |
| 2             | GPT-10KLF |            | 10-19-64 |       |   |



- SPECIFICATIONS -

MATERIAL- CERAMIC  
 RATED POWER AT 40°C-50W  
 PEAK ENERGY WATT-SEC-15,000  
 PEAK VOLTAGE-15KV MAX.  
 RESISTANCE RANGE-100Ω-3,300Ω  
 RESISTANCE TOLERANCE- ±10%  
 LOAD LIFE- 3.5% CHANGE AFTER 1000 HRS.  
 TEMP COEF(-50 TO +230°C) ±.05%/°C  
 VOLT. COEF(1%/KV/INCH LENGTH (MAX)  
 SHORT TIME OVERLOAD-1% CHANGE AFTER  
 500W FOR 5 SEC (MAX)  
 MAXIMUM TEMP- +230°C  
 MOISTURE RESISTANCE-2.5% CHANGE PER  
 MIL-STD-202B/103  
 DE-RATING- 0 WATTS AT 230°C LINEAR

TMC PART NUMBER SHALL BE IN THE FOLLOWING FORM

RR134-152

BASIC P/N RESISTANCE (LAST DIGIT NO. OF ZERO'S)

TYPICAL

| f (MCS) | R/Rdc | Z/Rdc |
|---------|-------|-------|
| Ø       | 100%  | 100%  |
| 16      | 95%   | 99%   |
| 23      | 93%   | 96%   |
| 33.5    | 87%   | 95%   |

STANDARD DRAWING

| REQ. ITEM   | PART NO.                        | DESCRIPTION  | SYMBOL                           |
|---|---------------------------------|--|----------------------------------|
|   |                                 | POSE   |                                  |
|   |                                 | THE TECHNICAL MATERIEL CORP.<br>MAMARONECK. NEW YORK |                                  |
| Ø   | ORIGINAL RELEASE FOR PRODUCTION | STOCK SIZE   | RESISTOR, FIXED FILM             |
| X   | EXP. RELEASE                    | MATERIAL   | NON INDUCTIVE BONDED CARBON      |
| SYM   | DESCRIPTION                     | DATE   | CH. NO. DRAFTS CHECKER ENG. APP. |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES |                                 | SCALE  | 1:2                              |
| DECIMALS<br>.X ± .05<br>.XX ± .01<br>.XXX ± .005  | TOLERANCES                      | FRACTIONS<br>± 1/64<br>ANGLES<br>± 0° 30'            | CODE<br>C                        |
|   | S401-205 (887 AS)               |  |                                  |
|   |                                 | TYPE & TEMPER HEAT TREAT. SPEC.                      |                                  |
|   |                                 | FINISH & SPEC. NO.                                   |                                  |
|   |                                 | DRAWN  | CHECKED                          |
|   |                                 | ELEC. DES. APP.                                      | MECH. DES. APP.                  |
|   |                                 | 10-19-64   | RR134                            |
|   |                                 |  | Ø                                |