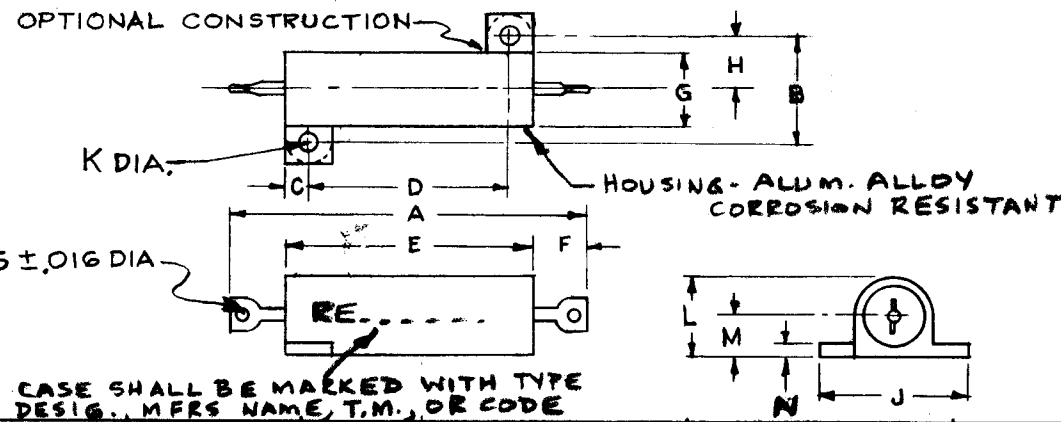


STANDARD DRAWING

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



RE 65, 70, 75

- ALL DIMENSIONS IN INCHES.
- UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE $\pm 1/32$.

SPECIFICATIONS:

RESISTANCE TOLERANCE = $\pm 1\%$
 RESISTANCE TEMPERATURE CHARACTERISTIC = $+0.0030\%$ PER °C.
 (30 PARTS PER MILLION (30 ppm)) FOR RESISTANCE VALUES OF 2,000 OHMS AND HIGHER AND $+0.0050\%$ PER °C. (50 ppm) FOR RESISTANCE VALUES UNDER 2,000 OHMS.

RESISTANCE:

THE NOMINAL RESISTANCE VALUE EXPRESSED IN OHMS IS IDENTIFIED BY A FOUR-DIGIT NUMBER; THE FIRST THREE DIGITS REPRESENT SIGNIFICANT FIGURES AND THE LAST DIGIT SPECIFIES THE NUMBER OF ZEROS TO FOLLOW. WHERE FRACTIONAL VALUES OF AN OHM, AND VALUES OF LESS THAN 100 OHMS, ARE REQUIRED, THE LETTER "R" IS SUBSTITUTED FOR ONE OF THE SIGNIFICANT DIGITS TO REPRESENT THE DECIMAL POINT. WHEN THE LETTER "R" IS USED, THE SUCCEEDING DIGITS BECOME SIGNIFICANT. THE FOLLOWING ARE EXAMPLES OF SYMBOLS FOR RESISTANCE VALUES:

R100 = 0.10 ohm 10R0 = 10 ohms 1001 = 1,000 ohms
 1R00 = 1.0 ohm 1000 = 100 ohms 1002 = 10,000 ohms

STANDARD RESISTANCE VALUES FOR 1 TO 10 DECADE #

| | | | | | | | | |
|------|------|------|------|------|------|------|------|------|
| 1.00 | 1.30 | 1.69 | 2.21 | 2.87 | 3.74 | 4.87 | 6.34 | 8.25 |
| 1.02 | 1.33 | 1.74 | 2.26 | 2.94 | 3.83 | 4.99 | 6.49 | 8.45 |
| 1.05 | 1.37 | 1.78 | 2.32 | 3.01 | 3.92 | 5.11 | 6.65 | 8.66 |
| 1.07 | 1.40 | 1.82 | 2.37 | 3.09 | 4.02 | 5.23 | 6.81 | 8.87 |
| 1.10 | 1.43 | 1.87 | 2.43 | 3.16 | 4.12 | 5.36 | 6.98 | 9.09 |
| 1.13 | 1.47 | 1.91 | 2.49 | 3.24 | 4.22 | 5.49 | 7.15 | 9.31 |
| 1.15 | 1.50 | 1.96 | 2.55 | 3.32 | 4.32 | 5.62 | 7.32 | 9.53 |
| 1.18 | 1.54 | 2.00 | 2.61 | 3.40 | 4.42 | 5.76 | 7.50 | 9.76 |
| 1.21 | 1.58 | 2.05 | 2.67 | 3.48 | 4.53 | 5.90 | 7.68 | |
| 1.24 | 1.62 | 2.10 | 2.74 | 3.57 | 4.64 | 6.04 | 7.87 | |
| 1.27 | 1.65 | 2.15 | 2.80 | 3.65 | 4.75 | 6.19 | 8.06 | |

VALUES NOT LISTED WILL BE CONSIDERED NONSTANDARD.

| RESISTOR STYLE | A $\pm 1/16$ | B ± 0.010 | C | D ± 0.010 | E $\pm 1/16$ | F $\pm 1/16$ | G $\pm 1/16$ | H | J | K ± 0.005 | L | M $\pm 1/16$ | N |
|----------------|--------------|---------------|-------|---------------|--------------|--------------|--------------|-------|--------|---------------|-------|--------------|------|
| RE65 | 1-3/8 | 5/8 | 3/32 | 9/16 | 3/4 | 5/16 | 7/16 | 5/16 | 13/16 | 3/32 | 13/32 | 13/64 | 3/32 |
| RE70 | 1-15/16 | 25/32 | 11/64 | 23/32 | 1-1/16 | 7/16 | 17/32 | 25/64 | 1-3/32 | 1/8 | 9/16 | 9/32 | 3/32 |
| RE75 | 2-25/32 | 27/32 | 3/16 | 1-9/16 | 1-15/16 | 7/16 | 19/32 | 27/64 | 1-5/32 | 1/8 | 5/8 | 5/16 | 3/32 |

| RESISTOR STYLE | WEIGHT GRAMS, MAXIMUM | POWER RATING (See Note 1) WATTS | MINIMUM AND MAXIMUM NOMINAL RESISTANCE VALUES (See Note 2) | | | DIELECTRIC-WITHSTAND. TEST VOLTAGE AT ATMOSPHERIC PRESS. VOLTS (See Note 3) |
|----------------|--------------------------|---------------------------------------|--|-------------------|---------|--|
| | | | MINIMUM OHMS | MAXIMUM OHMS * | OHMS ** | |
| RE65 | 6 | 10 | 0.10 | 1,100 | 5,620 | 1,000 |
| RE70 | 13 | 15 | 0.10 | 2,210 | 12,100 | 1,000 |
| RE75 | 26 | 20 | 0.10 | 8,060 | 39,200 | 2,000 |

| RESISTOR STYLE | TERMINAL STRENGTH DIRECT PULL POUNDS | (See Note 1) LOAD LIFE CHASSIS DIMENSIONS | | POWER RATING (FREE AIR) (Not Mounted On Chassis) WATTS | CHARACTERISTIC | |
|----------------|---|---|--------|---|----------------|---------------------------------|
| | | LG., W., & HGT. | THICK. | | SYMBOL | MAX. CONTINUOUS OPERATING TEMP. |
| RE65 | 5 $\frac{+0}{-1/4}$ | 6 X 4 X 2 | 0.04 | 6 | G | 275°C |
| RE70 | 10 $\frac{+0}{-1/2}$ | 7 X 5 X 2 | 0.04 | 9 | | |
| RE75 | 10 $\frac{+0}{-1/2}$ | 7 X 5 X 2 | 0.04 | 9 | | |

CLASSIFICATION:

TYPE DESIGNATION SHALL BE IN THE FOLLOWING FORM:



RESISTORS MUST BE MANUFACTURED IN ACCORDANCE WITH MIL-R-18546/1A.

NOTES:

- POWER RATING - BASED ON FULL OPERATION AT AN AMBIENT TEMPERATURE OF 25°C WHEN MOUNTED ON THE CHASSIS SPECIFIED IN CHART. (See Load Life Chassis Dimension Chart).
- * BASED ON USE OF 0.00175 INCH NOMINAL DIAMETER WIRE.
- ** BASED ON USE OF 0.001 INCH NOMINAL DIAMETER WIRE.
- AT REDUCED BAROMETRIC PRESSURE - THE MAGNITUDE OF THE TEST VOLTAGE SHALL BE 500 VOLTS.

| SYM | DESCRIPTION | DATE | CH. NO. | DRAFTS | CHECKER | ENG. APP. | |
|--|-------------|---|------------|--------|---------|-----------|--|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS $\pm 1/64$ DECIMALS $\pm .005$ ANGLES $\pm 1/2^\circ$ | | SCALE: MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES | | | | | |
| REQ. PER UNIT | MODEL | SECTION | ASS'Y. NO. | DATE | USED ON | | |

| REQ. | ITEM | PART NO. | DESCRIPTION | SYMBOL |
|--------------------|------|-------------------|--|-----------------|
| | | | GELLMAN | |
| STOCK SIZE | | | THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK | |
| MATERIAL | | | RESISTORS, FIXED, WIREWOUND (POWER TYPE, CHASSIS MOUNTED) | |
| TYPE & TEMPER | | HEAT TREAT. SPEC. | DRAWN W.S. | CHECKED J.D. |
| FINISH & SPEC. NO. | | | ELEC. DES. APP. | MECH. DES. APP. |
| | | | | RE 65, 70, 75 |