

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 THERETO.

REQUIREMENTS:

1. GENERAL:

- INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- UNITS SHALL MEET THE REQUIREMENTS OF MIL-R-93 WITH ANY ADDITIONS AND EXCEPTIONS AS NOTED HEREIN. UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS OF ND 1002057.
- SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404 CLASS 2.
- MARKING: UNITS SHALL BE MARKED IN ACCORDANCE WITH ND 1002019 WITH RESISTANCE VALUE, TOLERANCE, MANUFACTURER'S NAME/OR SYMBOL AND TYPE NUMBER. THE CONTAINER SHALL BE MARKED IN ACCORDANCE WITH MIL-STD-129 WITH THE MANUFACTURER'S NAME IDENTIFYING NUMBER, ITEM NAME, NASA DRAWING NUMBER, DASH NUMBER, AND REVISION LETTER, AND LOT CODE.
- LEADS SHALL BE NICKEL IN ACCORDANCE WITH ND 1015400. A CERTIFICATE OF COMPLIANCE WITH THIS REQUIREMENT SHALL ACCOMPANY EACH SHIPMENT.

2. ACCEPTANCE AND INSPECTION:

- MECHANICAL DIMENSIONS PER DRAWING.
- ELECTRICAL:
 - RESISTANCE SHALL BE AS SPECIFIED IN TABLE.
 - RESISTANCE SHALL BE MEASURED $3/8 \pm 1/64$ INCH FROM THE RESISTOR BODY.
 - RESISTANCE TOLERANCE: $\pm 1\%$

3. DESIGN REQUIREMENTS:

- POWER RATING: 1/4 WATT
- OPERATING TEMPERATURE RANGE: -55°C TO 145°C
- TEMPERATURE COEFFICIENT: 50 PPM/ $^{\circ}\text{C}$

4. SPECIAL CONDITIONING BY SUPPLIER:

- TEMPERATURE CYCLING
 - ALL RESISTORS SHALL BE TEMPERATURE CYCLED IN ACCORDANCE WITH MIL-R-93 PARAGRAPH 4.6.4. ALL PARTS NOT MEETING PARAGRAPH 2.8.1, AND 3 AFTER TEST SHALL BE REJECTED.
- BURN IN:
 - ALL RESISTORS SHALL BE SUBJECTED TO A 50 HOUR FULL POWER BURN IN AT 125°C AMBIENT TEMPERATURE. UNITS EXHIBITING A VARIATION OF RESISTANCE IN EXCESS OF $\pm 0.2\%$ OR CHANGE OUTSIDE OF SPECIFIED TOLERANCE SHALL BE REJECTED. RESISTANCE SHALL BE MEASURED BEFORE AND AFTER TEST, AND DATA IDENTIFIABLE TO EACH RESISTOR SUPPLIED WITH EACH SHIPMENT.

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

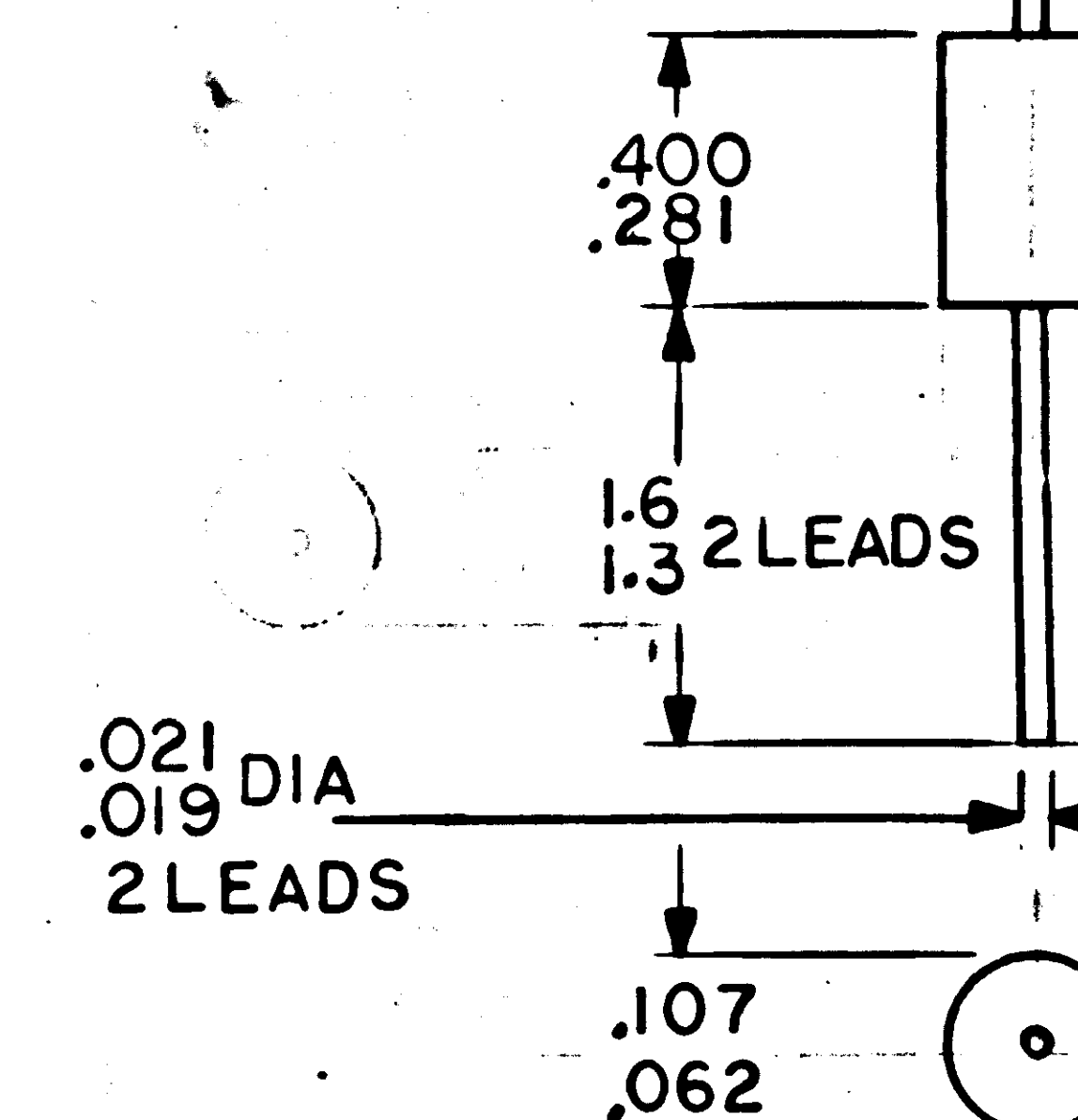
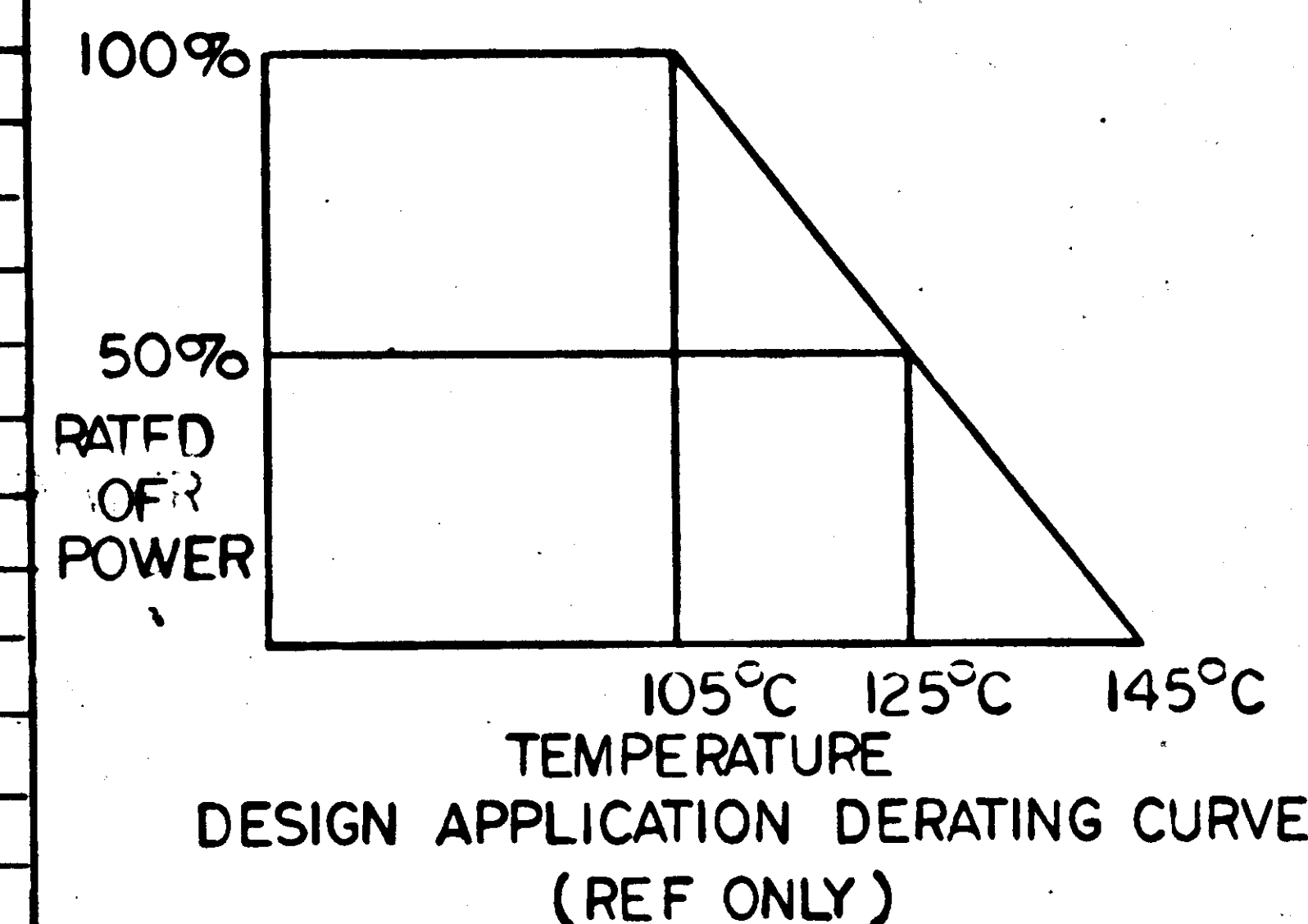
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| DASH NO. | RESISTANCE IN OHMS | INDUCTANCE μH MAX |
|----------|--------------------|------------------------------|
| 1 | 4.7 | 0.1 |
| 2 | 4.8 | 0.1 |
| 3 | 4.9 | 0.1 |
| 4 | 5.0 | 0.1 |
| 5 | 5.1 | 0.1 |
| 6 | 10 | 0.13 |
| 7 | 15 | 0.13 |
| 8 | 20 | 0.14 |
| 9 | 27 | 0.17 |
| 10 | 33 | 0.20 |
| 11 | 39 | 0.21 |
| 12 | 47 | 0.25 |
| 13 | 19.5 | 0.14 |
| 14 | 20.5 | 0.14 |
| 15 | 2.4 | 0.1 |
| 16 | 1.7 | 0.1 |
| 17 | 1.75 | 0.1 |
| 18 | 1.8 | 0.1 |
| 19 | 1.85 | 0.1 |
| 20 | 1.9 | 0.1 |
| 21 | 1.95 | 0.1 |
| 22 | 2.0 | 0.1 |
| 23 | 2.05 | 0.1 |
| 24 | 2.1 | 0.1 |
| 25 | 2.15 | 0.1 |
| 26 | 2.2 | 0.1 |
| 27 | 2.25 | 0.1 |
| 28 | 2.3 | 0.1 |
| 29 | 2.5 | 0.1 |
| 30 | 2.6 | 0.1 |
| 31 | 2.7 | 0.1 |
| 32 | 2.8 | 0.1 |
| 33 | 2.9 | 0.1 |
| 34 | 3.0 | 0.1 |
| 35 | 3.1 | 0.1 |
| 36 | 3.2 | 0.1 |
| 37 | 3.3 | 0.1 |
| 38 | 3.4 | 0.1 |
| 39 | 3.5 | 0.1 |
| 40 | 3.6 | 0.1 |
| 41 | 3.7 | 0.1 |
| 42 | 3.8 | 0.1 |
| 43 | 3.9 | 0.1 |
| 44 | 4.0 | 0.1 |
| 45 | 4.1 | 0.1 |
| 46 | 4.2 | 0.1 |

| DASH NO. | RESIST. IN OHMS | INDUCTANCE μH MAX |
|----------|-----------------|------------------------------|
| 47 | 4.3 | 0.1 |
| 48 | 4.4 | 0.1 |
| 49 | 4.5 | 0.1 |
| 50 | 4.6 | 0.1 |
| 51 | 1.5 | 0.1 |
| 52 | 1.55 | 0.1 |
| 53 | 1.60 | 0.1 |
| 54 | 1.65 | 0.1 |
| 55 | 5.2 | 0.1 |
| 56 | 5.4 | 0.1 |
| 57 | 5.6 | 0.1 |
| 58 | 5.8 | 0.1 |
| 59 | 6.0 | 0.1 |
| 60 | 6.3 | 0.1 |
| 61 | 6.6 | 0.1 |
| 62 | 6.9 | 0.1 |
| 63 | 7.2 | 0.1 |
| 64 | 7.5 | 0.1 |
| 65 | 8.0 | 0.1 |
| 66 | 8.5 | 0.1 |
| 67 | 9.0 | 0.1 |
| 68 | 9.5 | 0.1 |
| 69 | 2.35 | 0.1 |
| 70 | 2.45 | 0.1 |
| 71 | 2.55 | 0.1 |
| 72 | 2.65 | 0.1 |
| 73 | 2.75 | 0.1 |

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| REVISIONS | | | |
|-----------|--|----------|----------|
| SYM | DESCRIPTION | DATE | APPROVAL |
| C | REPLACES REV B WITH CHANGES PER TDRR 01287 | 5/22/63 | WJ |
| D | REVISED PER TDRR 01557 | 12/26/63 | AKB |
| E | REVISED PER TDRR 02619 | 8/14/63 | WJ |
| F | REVISED PER TDRR 03138 | 12/4/63 | WJ |
| G | REVISED PER TDRR 03998 | 17/08/63 | WJ |
| H | REVISED PER TDRR 05114 | 12/10/63 | WJ |
| J | REVISED PER TDRR 05371 | 12/27/63 | WJ |
| K | REVISED PER TDRR 16367 | 2/17/65 | WJ |
| L | REVISED PER TDRR 16566 | 7/11/65 | WJ |



© REPLACES REV B WITH CHANGES

| | |
|---|-----------------|
| 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 | |

| | | | | | | | | | |
|--|--|-------------------------|--|--|--|---------|--|------------------|--|
| QTY REQD | | PART OR IDENTIFYING NO. | | NOMENCLATURE OR DESCRIPTION | | FIN NO. | | | |
| LIST OF MATERIALS | | | | | | | | | |
| MIT INSTRUMENTATION LAB CAMBRIDGE, MASS. | | | | MANNED SPACECRAFT CENTER HOUSTON, TEXAS | | | | | |
| DWS. NO. CONTRACT | | | | RESISTOR , FIXED, WIREWOUND SPECIFICATION CONTROL DRAWING | | | | | |
| DRAWN <u>R Kane</u> DATE <u>20 May 63</u> | | | | | | | | | |
| CHECKED <u>George J. Hall</u> <u>22 May 63</u> | | | | | | | | | |
| APPROVAL <u>E. J. D. Hall</u> <u>22 May 63</u> | | | | | | | | | |
| APPROVAL <u>Edgar C. Hall</u> <u>22 May 63</u> | | | | | | | | | |
| NASA APPROVAL <u>E. J. D. Hall</u> <u>5/22/63</u> | | | | CODE IDENT NO. | | SIZE | | NASA DRAWING NO. | |
| | | | | — | | C | | 1006788 | |
| MIT APPROVAL <u>E. J. D. Hall</u> <u>5/22/63</u> | | | | SCALE NONE | | WT | | SHEET OF | |