

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

**SAE AS81714/18**

## RATIONALE

FEDERAL SUPPLY CLASS  
5940

AS81714/18 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

## NOTICE

THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MIL-T-81714/18B AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MIL-T-81714/18B. ANY PART NUMBERS ESTABLISHED BY THE ORIGINAL SPECIFICATION REMAIN UNCHANGED.

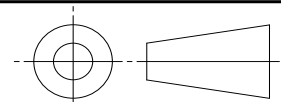
THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LISTS ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS (QPL'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS SAE TECHNICAL DOCUMENT.

SAENORM.COM : Click to view the full PDF of as81714/18

**SAE values your input. To provide feedback on this Technical Report, please visit**  
<http://www.sae.org/technical/standards/AS81714/18>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

**SAE Aerospace**  
An SAE International Group

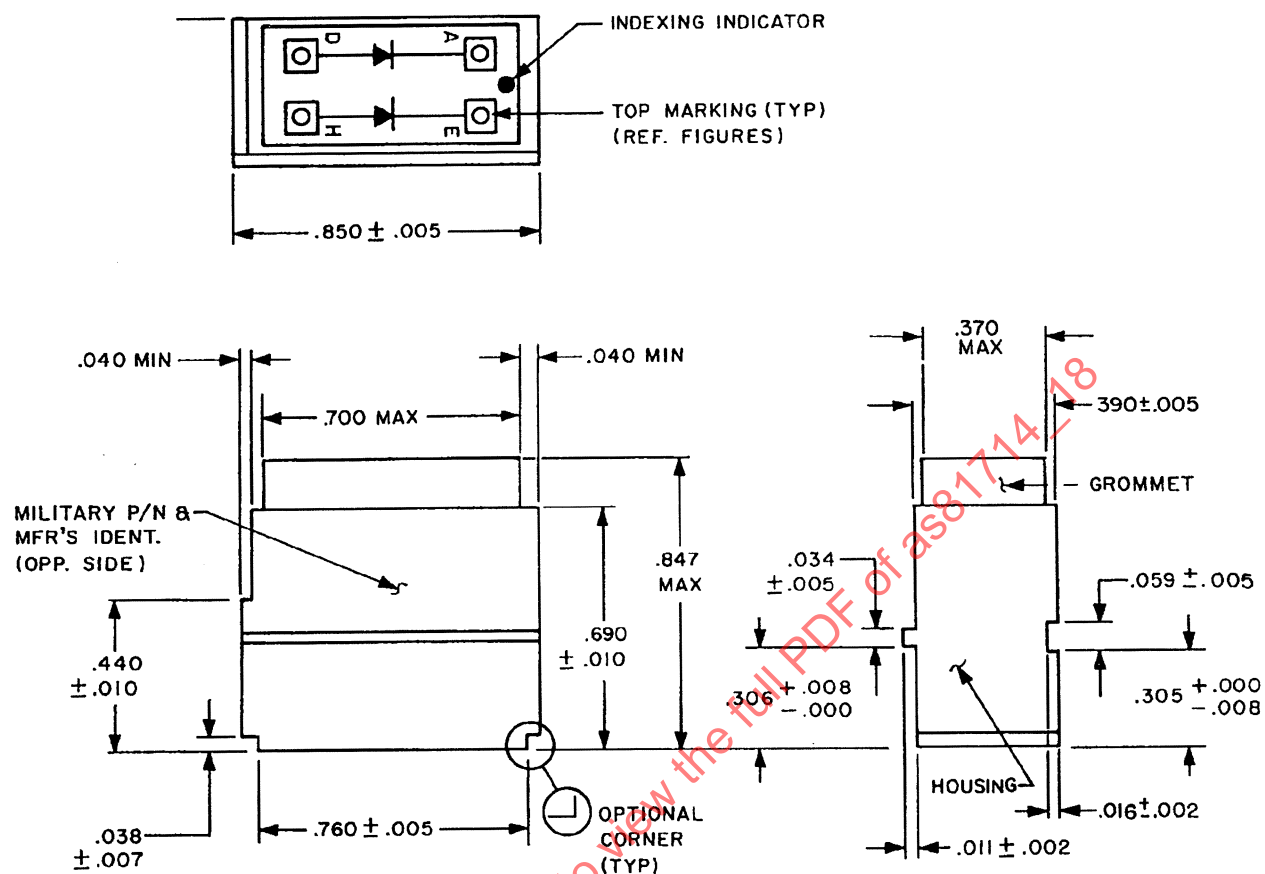
## AEROSPACE STANDARD

TERMINAL JUNCTION SYSTEM, TERMINAL JUNCTION BLOCKS, SECTIONAL, MODULES, ELECTRONIC, FEEDBACK TYPE, SIZE 20, SERIES I

**SAE AS81714/18**  
SHEET 1 OF 9

ISSUED 2001-07 REAFFIRMED 2012-01

THE COMPLETE REQUIREMENTS FOR ACQUIRING THE BLOCKS DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF SPECIFICATION MIL-T-81714.



Size 20 Electronic Block

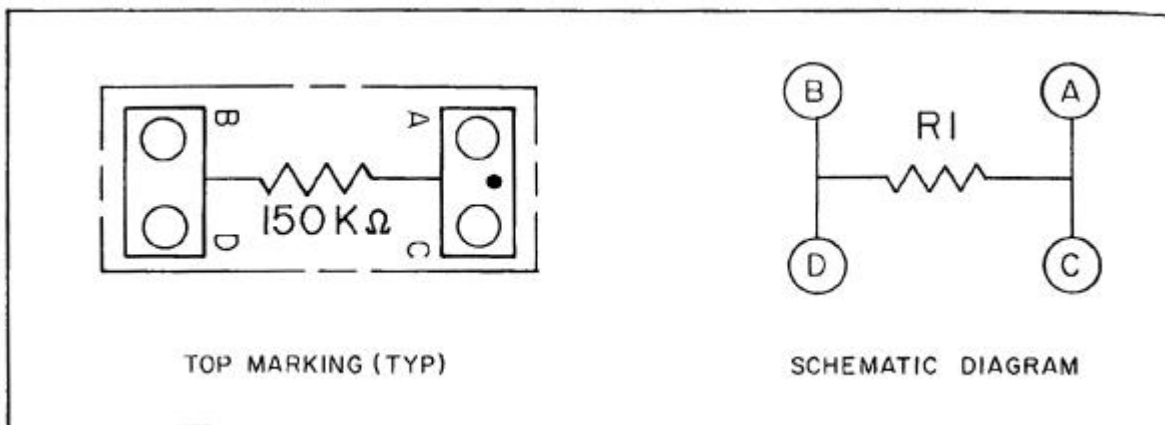


FIGURE 1. BLOCKS WITH ONE RESISTOR.

TABLE I. DASH NUMBERS FOR FIGURE 1.

| Dash No. | Figure | Ref. Des. | Ohms | Part Number  | Specification No. |
|----------|--------|-----------|------|--------------|-------------------|
| -001     | 1A     | R1        | 150  | RCR20G151JS  | MIL-R-39008/2     |
| -002     | 1A     | R1        | 180  | RCR20G181JM  | MIL-R-39008/2     |
| -003     | 1A     | R1        | 221  | RWR89N221OFR | MIL-R-39007/11    |
| -004     | 1A     | R1        | 249  | RN65H249OFM  | MIL-R-55182/3     |
| -005     | 1A     | R1        | 390  | RCR20G391JM  | MIL-R-39008/2     |
| -006     | 1A     | R1        | 4750 | RN60D4751F   | MIL-R-10509/1     |
| -007     | 1A     | R1        | 3300 | RCR20G332JM  | MIL-R-39008/2     |
| -008     | 1A     | R1        | 3900 | RLR20C3901GR | MIL-R-39017/2     |
| -009     | 1A     | R1        | 2200 | RCR20G222JM  | MIL-R-39008/2     |
| -010     | 1A     | R1        | 5600 | RCR20G562JM  | MIL-R-39008/2     |
| -011     | 1A     | R1        | 24K  | RLR20G2402GR | MIL-R-39017/2     |
| -012     | 1A     | R1        | 47.5 | RN60D47R5F   | MIL-R-10509/1     |
| -013     | 1A     | R1        | 150K | RLR20C1503FR | MIL-R-39017/2     |
| -014     | 1A     | R1        | 100  | RCR20G101JM  | MIL-R-39008/2     |

| Inch | mm   | Inch | mm   | Inch | mm    | Inch | mm    |
|------|------|------|------|------|-------|------|-------|
| .002 | 0.05 | .014 | 0.36 | .305 | 7.75  | .690 | 17.53 |
| .005 | 0.13 | .034 | 0.86 | .306 | 7.77  | .700 | 17.78 |
| .007 | 0.18 | .038 | 0.97 | .370 | 9.40  | .760 | 19.30 |
| .008 | 0.20 | .040 | 1.02 | .390 | 9.91  | .847 | 21.51 |
| .010 | 0.25 | .059 | 1.50 | .440 | 11.18 | .850 | 21.59 |
| .011 | 0.28 |      |      |      |       |      |       |

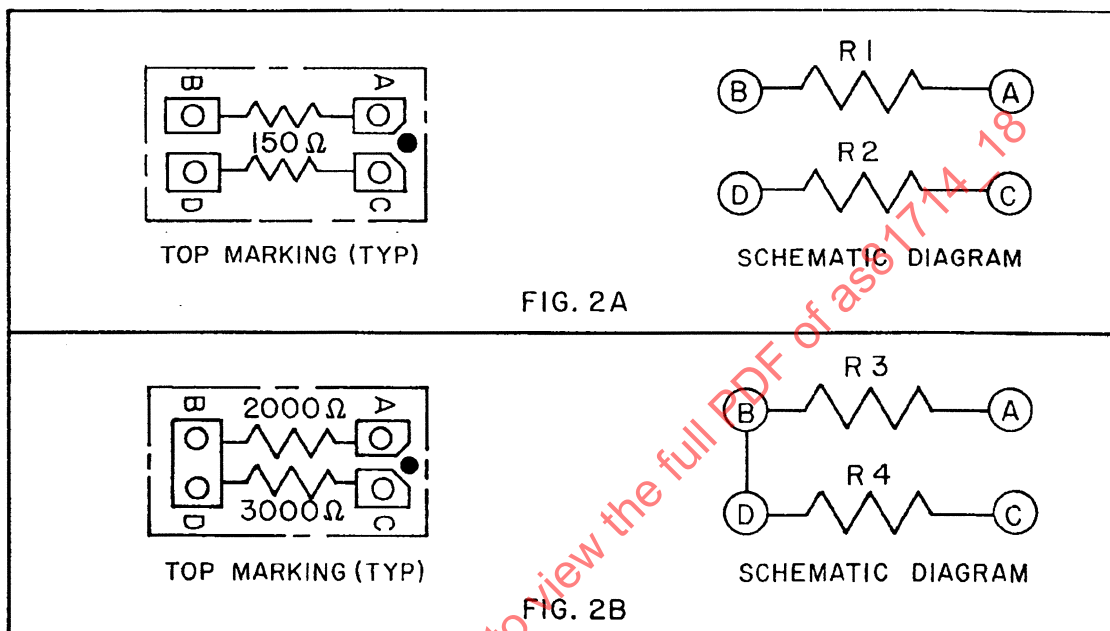
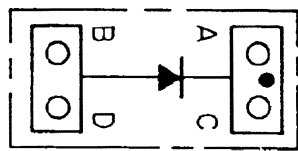


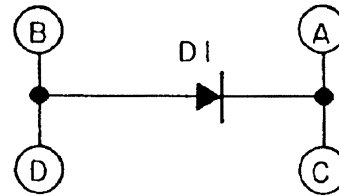
FIGURE 2. BLOCKS WITH TWO RESISTORS.

TABLE II. DASH NUMBERS FOR FIGURE 2.

| Dash No. | Figure | Ref. Des. | Ohms         | Part Number                | Specification No. |
|----------|--------|-----------|--------------|----------------------------|-------------------|
| -301     | 2A     | R1<br>R2  | 150<br>150   | RCR20G151JS<br>RCR20G151JS | MIL-R-39008/2     |
| -302     | 2A     | R1<br>R2  | 1000<br>1000 | RCR07G102JM<br>RCR07G102JM | MIL-R-39008/1     |
| -303     | 2A     | R1<br>R2  | 150K<br>150K | RCR07G154JM<br>RCR07G154JM | MIL-R-39008/1     |
| -304     | 2B     | R3<br>R4  | 2000<br>3000 | RCR07G202JM<br>RCR07G302JM | MIL-R-39008/1     |

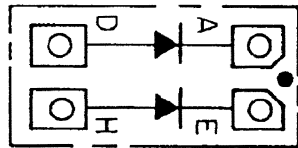


TOP MARKING (TYP)

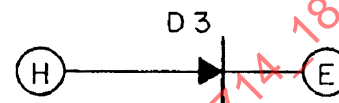
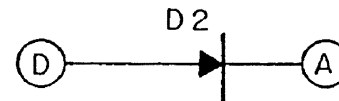


SCHEMATIC DIAGRAM

FIG. 3A

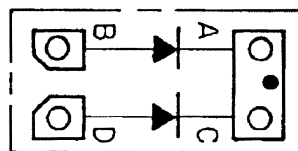


TOP MARKING (TYP)

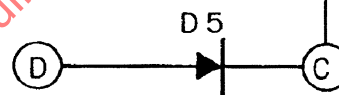
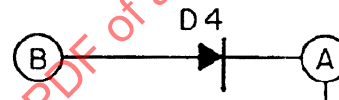


SCHEMATIC DIAGRAM

FIG. 3B

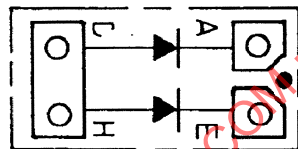


TOP MARKING (TYP)

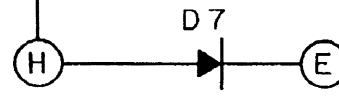
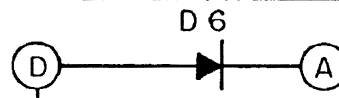


SCHEMATIC DIAGRAM

FIG. 3C

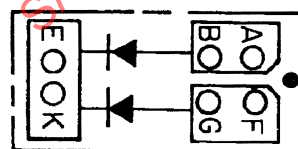


TOP MARKING (TYP)

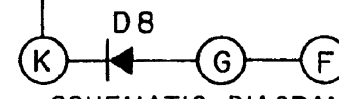
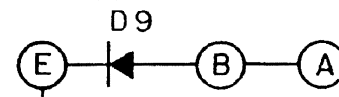


SCHEMATIC DIAGRAM

FIG. 3D



TOP MARKING (TYP)



SCHEMATIC DIAGRAM

FIG. 3E

FIGURE 3. BLOCKS WITH DIODE(S).

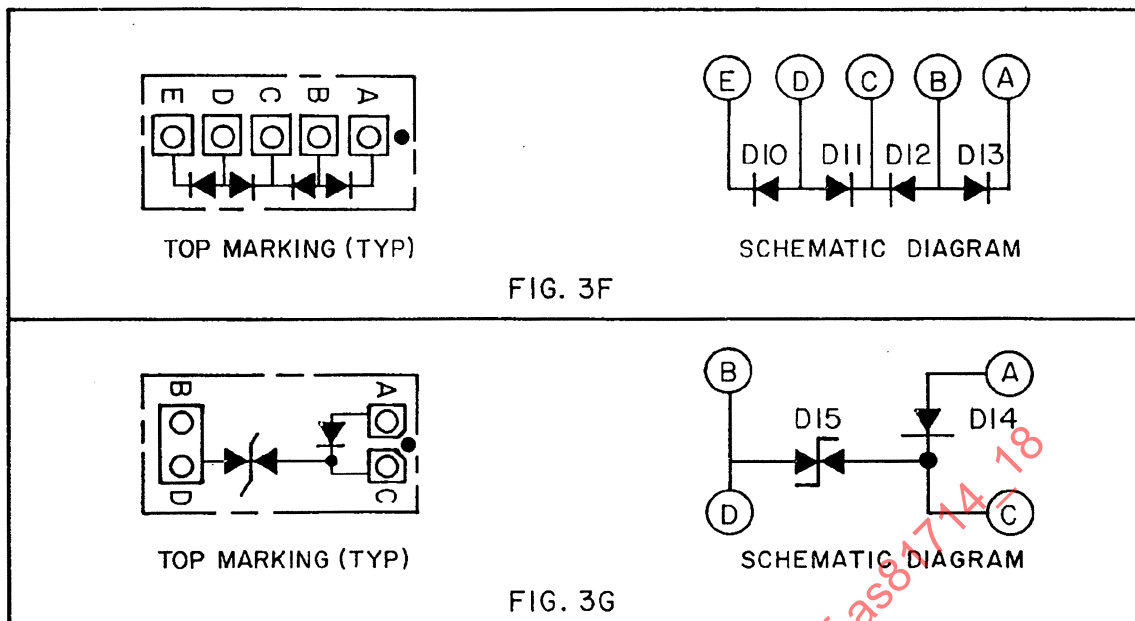


FIGURE 3. BLOCKS WITH DIODE(S) (CONTINUED).

SAENORM.COM : Click to view the full PDF of as81714/18

TABLE III. DASH NUMBERS FOR FIGURE 3.

| Dash No. | Figure | Ref Des  | Part Number | Specification <u>1/</u> |
|----------|--------|----------|-------------|-------------------------|
| -501     | 3A     | D1       | JAN 1N5618  | MIL-S-19500/427         |
| -502     | 3B     | D2       | JAN 1N1526  | MIL-S-19500/432         |
|          |        | D3       |             |                         |
| -503     | 3C     | D4       | 1N4003      | JEDEC                   |
|          |        | D5       | 1N4003      | JEDEC                   |
| -504     | 3D     | D6       | 1N4003      | JEDEC                   |
|          |        | D7       | 1N4003      | JEDEC                   |
| -505     | 3E     | D8       | JAN 1N5618  | MIL-S-19500/427         |
|          |        | D9       | JAN 1N5618  | MIL-S-19500/427         |
| -506     | 3F     | D10, D11 | JAN 1N3611  | MIL-S-19500/228         |
|          |        | D12, D13 |             |                         |
| -507     | 3G     | D14      | JAN TX4971  | MIL-C-19500/356         |
|          |        | D15      | JAN-1N5553  | MIL-S-19500/420         |

1/ JEDEC: Joint Electronic Design Engineering Council (EIA), 2001 Eye Street, N.W., Washington, DC 20006.