

PERFORMANCE SPECIFICATION

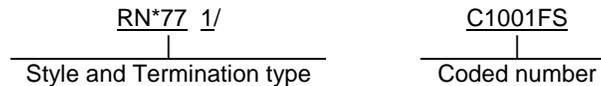
RESISTORS, FIXED, FILM, NONESTABLISHED RELIABILITY,  
ESTABLISHED RELIABILITY, AND SPACE LEVEL, STYLE RN\*77 1/

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the associated requirements for style RN\*77, nonestablished reliability, established reliability, and space level, fixed, film, resistors. 1/

1.2 Part or Identifying Number (PIN). Resistors covered by this specification are identified by a PIN which is derived in accordance with MIL-PRF-55182 and is in the following form:



2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

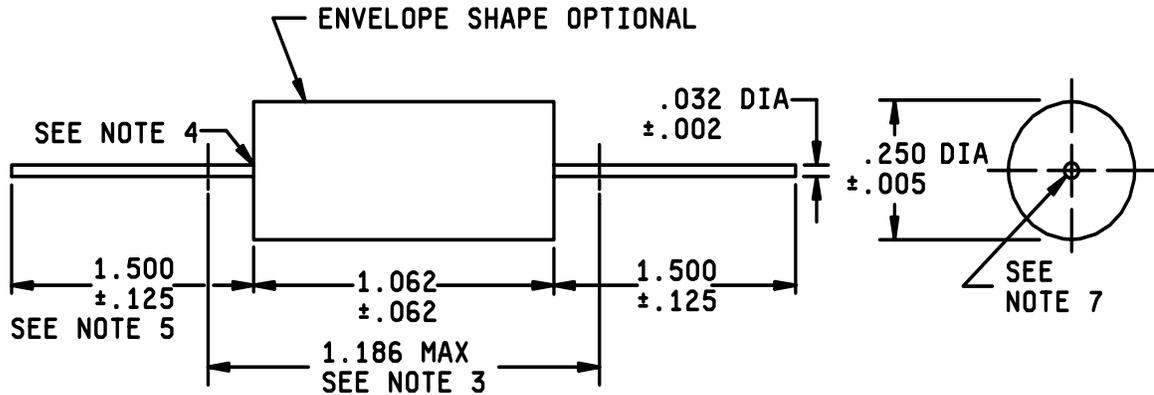
SPECIFICATION

DEPARTMENT OF DEFENSE

MIL-PRF-55182 - Resistors, Fixed, Film, Nonestablished Reliability, Established Reliability, and Space Level, General Specification for.

1/ Third letter is variable, dependent upon lead material or capability.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Communications - Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-E-EP, Fort Monmouth, NJ 07703-5023 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The maximum length is "clean lead" to "clean lead".
4. The end of the body shall be that point at which the body diameter equals the nearest drill size larger than 250 percent of the nominal lead diameter.
5. Lead length for new design and tape and reel packaging shall be 1.00 inch  $+ .625$  inch,  $- .00$  inch (25.4 mm  $+ 15.80$  mm,  $- 0.00$  mm).
6. Lead concentric tolerance is to be measured at the point of lead egress from the resistor body.
7. Lead to be concentric to the resistor body within 0.016 TIR.

Inches	mm	Inches	mm	Inches	mm
0.002	0.05	0.062	1.57	1.186	30.12
0.005	0.13	0.125	3.18	1.500	38.10
0.016	0.41	0.250	6.35		
0.032	0.81	1.062	26.97		

\* FIGURE 1. Style RN\*77 resistors. 1/

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Document Automation and Production Service (DAPS), Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5049.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General. The requirements for acquiring the product described herein shall consist of this document and MIL-PRF-55182G.

\* 1/ Third letter is variable, dependent upon lead material or capability.

3.2 Interface and physical dimensions. Resistors shall meet the interface and physical dimensions specified on figure 1.

\* 3.2.1 Characteristic. Style RN\*77 is available in characteristic C, characteristic E, characteristic H, characteristic J, and characteristic K. 1/

3.2.2 Terminal. Terminal type RNC is available in characteristic H, characteristic J, and characteristic K only. Terminal type RNR is available in characteristic C and characteristic E only.

3.3 Power rating. The power rating shall be 1.0 watt at 125°C (see 6.3).

3.4 Voltage rating. The continuous working voltage shall not exceed 750 volts.

3.5 Resistance. Minimum and maximum resistance values shall be as follows:

Minimum resistance

Characteristic:

H, J, and K 2/ -----1.0 ohms  
C and E ----- 20.0 ohms

Maximum resistance

Characteristic:

C and E -----20.0 megohms  
H, J, and K -----20.0 megohms

3.6 Voltage coefficient (applicable to resistors of 1,000 ohms and above). The voltage coefficient shall not exceed  $\pm 0.0005$  percent per volt.

4. VERIFICATION

4.1 Verification. Verification shall be in accordance with MIL-PRF-55182.

4.2 Overload. The overload test duration shall be 1 hour with 2.25 x rated power overload; maximum voltage shall be 1,000 volts.

4.3 Terminal strength. The applied force shall be 5 pounds.

4.4 Dielectric withstanding voltage. The magnitude of test voltage shall be 900 volts for atmospheric pressure and 450 volts for barometric pressure.

5. PACKAGING

5.1 Packaging requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or order. When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

\* 1/ Third letter is variable, dependent upon lead material or capability.

\* 2/ For resistance tolerance D and resistance tolerance F only. For resistance tolerance B, the minimum resistor value shall be 10.00 ohms.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Notes. The notes specified in MIL-PRF-55182 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of the specification.
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1).

\* c. Packaging requirements (see 5.1). (i.e. Electrostatic discharge (ESD) sensitive packaging).

6.3 Power rating at 70°C. The power rating at 70°C for 2,000 hours life test has been established at 2.0 watts; however, it should be noted that the failure rate level is established at the single condition of 125°C, 1.0 watt and 10,000 hours life test duration. The user should consider the FR level as assigned only to the 125°C.

\* 6.4 Electrostatic charge. Under several combinations of conditions, these resistors can be electrically damaged, by electrostatic charges, and drift from specified value. Users should consider this phenomena when ordering or shipping resistors. Direct shipment to the Government is controlled by MIL-DTL-39032 which specifies a preventive packaging procedure.

\* 6.5 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

Army - CR  
Navy - EC  
\* Air Force - 11  
NASA - NA

Preparing activity:

Army - CR

Agent:

DLA - CC

Review activities:

Army - AR  
Navy - AS, CG, MC, OS  
Air Force - 19, 99

(Project 5905-1677-08)

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.  
NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

### I RECOMMEND A CHANGE:

#### 1. DOCUMENT NUMBER

MIL-PRF-55182/13B

#### 2. DOCUMENT DATE (YYMMDD)

02/09/26

3. **DOCUMENT TITLE:** RESISTORS, FIXED, FILM, NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, AND SPACE LEVEL, STYLE RN\*77

4. **NATURE OF CHANGE** (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

### 5. REASON FOR RECOMMENDATION

### 6. SUBMITTER

a. NAME (Last, First, Middle initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Incl Area Code)

7. DATE SUBMITTED  
(YYMMDD)

(1) Commercial

(2) AUTOVON  
(If applicable)

### 8. PREPARING ACTIVITY

a. NAME  
US Army Communications-  
Electronics Command

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Fort Monmouth, NJ 07703-5023

**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:**  
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5803 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466  
Telephone (703) 756-2340 AUTOVON 289-2340