INCH-POUND

MIL-PRF-39017/1P
w/ Amendment 2
9 October 2014
SUPERSEDING
MIL-PRF-39017/1P
w/ Amendment 1
5 June 2009

PERFORMANCE SPECIFICATION

RESISTOR, FIXED, FILM (INSULATED), NONESTABLISHED RELIABILITY, AND ESTABLISHED RELIABILITY, STYLE RLR07

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

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-PRF-39017.

1. SCOPE

1.1 Scope. This specification covers the associated requirements for style RLR07, nonestablished reliability and established reliability, insulated, film, fixed resistors. Designers are CAUTIONED on using these resistors in high power pulse applications (see 6.4).

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-39017 and is in the following form:

RLR07	C1001FS
Style and Termination type	Coded number

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.

Comments, suggestions, or questions on this document should be addressed to: Army Standardization Program Lead Engineering Operations Division (PRD), ATTN: CERDEC, Pod 153, Bldg. 6010, Aberdeen Proving Ground, MD 21005 or emailed to usarmy.APG.cerdec.mbx.standardization-crx@mail.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.dla.mil.

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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 cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-39017 - Resistors, Fixed, Film (Insulated), Nonestablished Reliability and Established Reliability, General Specification for.

* (Copies of these documents are available online at http://quicksearch.dla.mil.)

* 2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), 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-39017.

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

3.3 Power rating. The power rating shall be 0.25 watt.

3.4 Voltage rating. The continuous working voltage shall not exceed 250 volts.

3.5 Resistance and resistance tolerance. Minimum resistance and maximum resistance values and resistance tolerance for temperature characteristics of ±100 parts per million (PPM) and ±350 PPM shall be as follows:

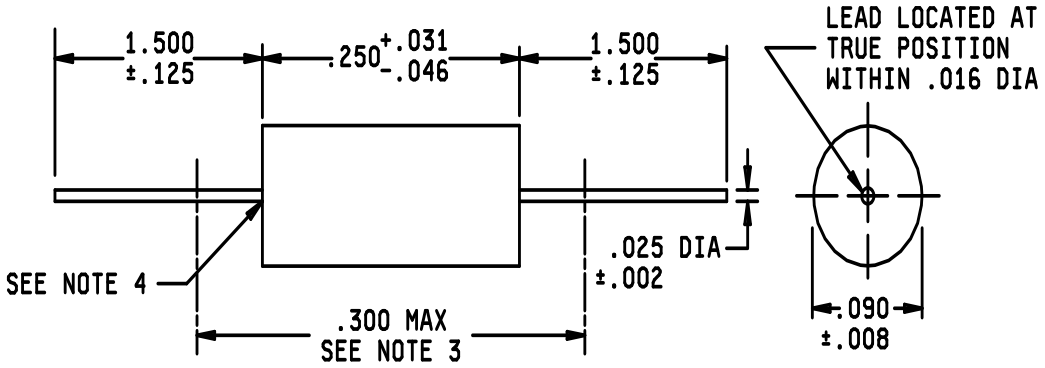
	100 PPM	350 PPM
Resistance tolerance (percent)	1, 2	2, 5, 10
Minimum resistance	1 Ω	11 MΩ
Maximum resistance	10 MΩ	22 MΩ

3.6 Maximum weight. The maximum weight shall not exceed 0.5 gram.

3.7 Marking. Due to size limitations this style resistor shall be marked with the following minimum information in the order shown:

603AJ - Year and week manufactured, lot code (letters "0" and "I" excluded), and JAN marking.
RLR7C - Partial style ("0" deleted for partial marking), terminal.
1002F - Resistance value, tolerance.
M* - Product level designator and manufacturer's code (see qualified products list for manufacturer's code symbols).

Full marking is required on the unit package.



Inches	mm
.002	0.05
.008	0.20
.016	0.41
.025	0.64
.031	0.79
.046	1.17
.090	2.29
.125	3.18
.250	6.35
.300	7.62
1.500	38.10

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. 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 tape and reel packaging shall be 1 inch (25.4 mm) minimum (see 6.2).

FIGURE 1. Style RLR07 resistor.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PRF-39017.

4.2 Power conditioning. The maximum voltage applied shall not exceed 250 volts, ac or dc.

4.3 Dielectric withstanding voltage. The test voltages applicable to style RLR07 are as follows:

Atmospheric pressure - 500 volts rms.
Barometric pressure - 250 volts rms.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of material is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. 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.

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-39017 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of the specification, and complete PIN.

* b. Unless otherwise specified (see 2.1), the versions of the individual documents referenced will be those in effect on the date of release of the solicitation.

c. Packaging requirements (see 5.1).

d. Lead length requirements for tape and reel packaging. (Contractor may specify smaller lead lengths in the purchase order).

6.3 Substitution data.

6.3.1 MIL-R-22684. Resistors of this specification, regardless of their FR designation, are substitutes for resistors of the same resistance value and tolerance specified in the inactivated specification sheet MIL-R-22684/1.

6.3.2 MIL-R-39008. Resistors of this specification, regardless of their FR designation are suggested replacements for resistors of the same resistance value and tolerance specified in MIL-R-39008/1, except in high power pulse application (see 6.4).

6.3.3 MIL-R-11. Resistors of this specification, regardless of their FR designation are suggested replacements for resistors of the same resistance value and tolerance specified in MIL-R-11/8, except in high power pulse application (see 6.4).

* 6.4 Pulse applications. Designers are CAUTIONED on using these resistors in high power pulse applications. Since they have not been qualified nor tested for such applications, damage and premature failure are possible. These resistors only see a one time pulse (Short-time overload see paragraph 4.8.8 of MIL-PRF-39017) as part of the group B inspection of this specification. Designers MAY CONSIDER using DLA Land and Maritime drawings 03004 for high power pulse applications. NOTE: This alternative resistor does not have the geometry (form, fit) of the MIL-PRF-39017 resistor, nor are they subject to the same Qualification/verification or Periodic Group C inspection requirements. Additionally, Group B for the DLA Land and Maritime drawings parts may be satisfied by providing generic data.

6.5 Amendment notations. The margins of this specification are marked with asterisks to indicate modifications generated by this amendment. 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.

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