

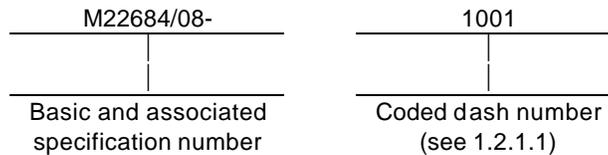
PERFORMANCE SPECIFICATION
RESISTORS, FIXED, FILM, (INSULATED),
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-PRF-22684E, dated 24 September 1999, and is approved for use by all Departments and Agencies of the Department of Defense.

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1.2.1, 1.2.1.1, 1.2.1.2, 1.2.1.3, 1.2.1.4, and table I; delete and substitute the following:

“1.2.1 Part or Identifying Number (PIN). Resistors specified herein are identified by the PIN which consist of the basis number, associated specification, and a coded dash number.



“1.2.1.1 Coded dash number. The coded dash number is a coded value which identifies the resistance value, resistance tolerance, and the terminal (see 3.1).”

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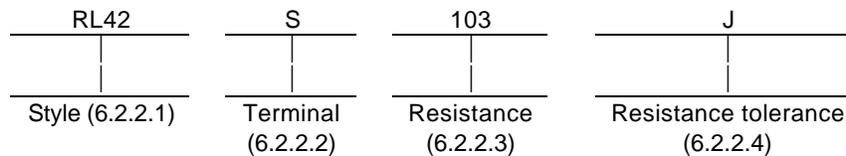
* 2.2.1, parenthesis note; delete “Defense Automated Printing Service” and substitute “Document Automation and Productions Service”.

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After 6.2.1 add, 6.2.2, 6.2.2.1, 6.2.2.2, 6.2.2.3, and 6.2.2.4.

“6.2.2 Type designation. The type designation for identifying these parts is as follows:

NOTE: This is for information only. For the correct PIN, see 3.1.



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"6.2.2.1 Style. The style is identified by the two letter symbol "RL" followed by a two digit number; the letters identify insulated, film, fixed resistors, and the number identifies the sizes and power rating of the resistors.

"6.2.2.2 Terminal. The terminal is identified by the single letter "S" indicating solderable.

"6.2.2.3 Resistance. The nominal resistance value expressed in ohms is identified by a three digit number; the first two digits represent significant figures and the last digit specifies the number of zeros to follow. Minimum and maximum resistance values are as specified (see 3.1). The standard value for every decade follows the sequence demonstrated for the "10 to 100" decade.

"6.2.2.4 Resistance tolerance. The resistance tolerance is identified by a single letter in accordance with table VII-1.

"TABLE VII-1. Resistance tolerance.

Symbol	Resistance tolerance percent (\pm)
G	2
J	5

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* A.2.2.1, parenthesis note; delete "Defense Automated Printing Service" and substitute "Document Automation and Productions Service".

* After A.2.2.1, add:

"A.2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained."

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Table VIII, delete and substitute.

"TABLE VIII. Critical resistance value for qualification inspection. 1/

Style	Critical resistance value 2/ (megohms)
RL07	0.240
RL20	0.240
RL32	0.240
RL42	0.120

1/ Maximum continuous working voltage shall be applied (see 3.1).

2/ The critical resistance value is the maximum standard resistance value which will dissipate full wattage when the maximum continuous working voltage is applied."

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* A.3.4.2, and A.3.4.3; delete.

* Section A.5, add.

"A.5 SOLDER DIP (RETNING) LEADS

"A.5.1 Solder dip (retinning) leads. Only the manufacturer or his authorized MIL-PRF-39017 category B or category C distributor who has been previously approved may solder dip/retin the leads of product supplied to this specification provided the solder dip process of this appendix or an equivalent process has been approved by the qualifying activity.

"A.5.2 Qualifying activity approval. Approval of the solder dip process will be based on one of the following options:

"a. When the original lead finish qualified was hot solder dip lead finish 52 of MIL-STD-1276. (NOTE: The 200 micro inch maximum thickness is not applicable). The manufacturer shall use the same solder dip process for retinning as is used in the original manufacture of the product.

"b. When the lead originally qualified was not hot solder dip lead finish 52 of MIL-STD-1276 as prescribed in A.5.2a, approval for the process to be used for solder dip shall be based on the following test procedure:

"(1) Thirty samples of any resistance value for each style and lead finish are subject to the manufacturer's solder dip process. Following the solder dip process, the resistors are subjected to the dc resistance test (and other group A electricals). No defects are allowed.

"(2) Ten of the 30 samples are then subjected to the solderability test. No defects are allowed.

"(3) The remaining 20 samples are subjected to the resistance to bonding exposure test followed by the moisture resistance test. No defects are allowed.

"(Note: Solder dip of gold plated leads is not allowed.)

"A.5.3 Solder dip/retinning options. The manufacturer (or authorized category B or category C distributor) may solder dip/retin as follows:

"a. After the group A screening tests: Following the solder dip/retinning process, the electrical measurements required in group A, subgroup 1, shall be repeated on the lot. The group A, subgroup 1, lot rejection criteria shall be used. Following this test, the manufacturer shall submit the lot to the group A solderability test as specified in 4.5.1.3.1.3.

"b. As a corrective action, if the lot fails the group A solderability test: The lot may be retinned no more than two times. The lot after retinning shall be screened for group A electrical requirements (dc resistance). Any parts failing (lot not exceeding PDA for group A, subgroup 1, see 4.5.1.3.1.1) these screens shall not be supplied to this specification. If electrical failures exceeding 1 percent of the lot are detected after the second retinning operation, the lot shall not be supplied to this specification.

"c. After the group A inspection has been completed: Following the solder dip/retinning process, the electrical measurements required in group A, subgroup 1 tests shall be repeated on the lot. The PDA for the electrical measurements shall be as for the subgroup 1 tests. Following these tests, the manufacturer shall submit the lot to the group A solderability test as specified in 4.5.1.3.1.1."

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Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5905-1646)

Review activities:

Army - AR, AT, AV, CR4, MI
Navy - AS, CG, MC, OS
Air Force - 19, 99