

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	5 year review cycle. Editorial changes throughout	10 Mar 06	M. Radecki
B	5 year review cycle. Editorial changes throughout	10 Dec 15	M. Radecki

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3
HAS CHANGED NAMES TO:
DLA LAND AND MARITIME
COLUMBUS, OHIO 43218-3990



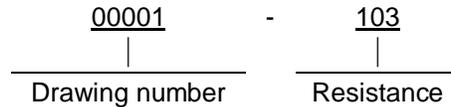
Prepared in accordance with ASME Y14.100

REV STATUS OF PAGES	REV	B	B	B	B	B												
	PAGES	1	2	3	4	5												
PMIC N/A	PREPARED BY Jesus V. Garcia III						DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH											
Original date of drawing: 10 March 2000	CHECKED BY Andrew R. Ernst						TITLE RESISTOR, VARIABLE, WIREWOUND, NONPRECISION, TRIMMER, 3/8 INCH, SQUARE, 1 WATT, FLEXIBLE LEADS											
	APPROVED BY Kendall A. Cottongim																	
	SIZE A	CODE IDENT. NO. 037Z3					DWG NO. 00001											
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1. SCOPE

1.1 Scope. This drawing describes the requirements for a 1 watt, 3/8 inch square, wirewound, nonprecision, variable resistor, trimmer with flexible leads.

1.2 Part or Identifying Number (PIN). The complete PIN is as follows:



2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.2 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 (see 6.2).

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-27208 - Resistor, Variable, Wirewound, Nonprecision, General Specification for.

DEPARTMENT OF DEFENSE STANDARD

MIL-STD-1285 - Marking of Electrical and Electronic Parts.

(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 unless otherwise noted. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with **MIL-PRF-27208** and as specified herein.

3.2 Interface and physical dimensions. The resistor shall meet the interface and physical dimensions as specified in **MIL-PRF-27208** and herein (see [figure 1](#))

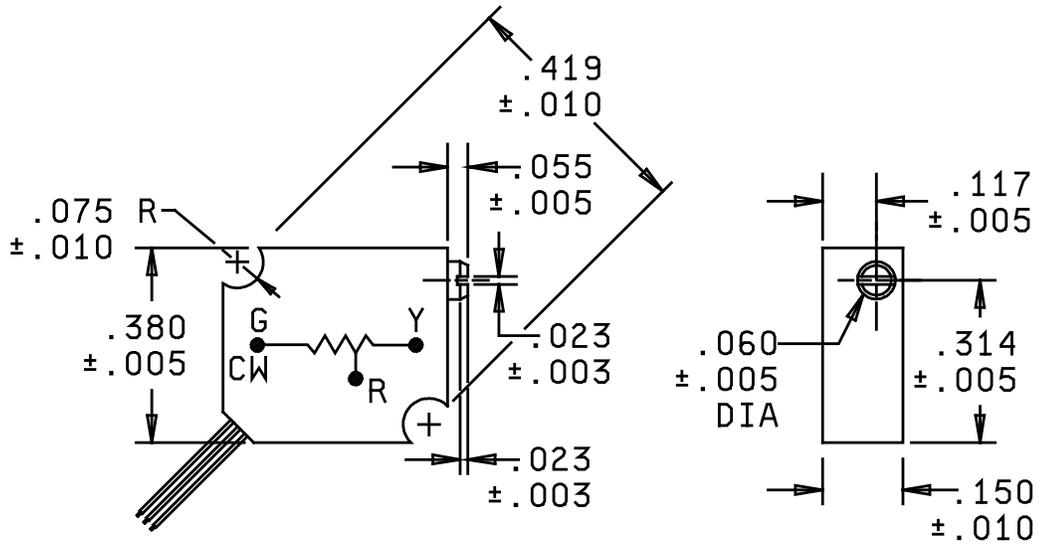
3.3 Electrical characteristics.

3.3.1 Nominal resistance value. The nominal resistance values are as specified in table I

3.3.2 Actual effective electrical travel. Actual effective electrical travel shall be 18 turns minimum, and 26 turns maximum.

3.3.3 Resistance tolerance. The resistance tolerance shall be ±5 percent.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	0.076	.023	0.584	.075	1.90	.314	7.98
.005	0.127	.055	1.40	.117	2.97	.380	9.65
.010	0.254	.060	1.52	.150	3.81	.419	10.64

NOTE:

1. Dimensions are in inches. Metric equivalents are given for general information only.
2. The three leads shall be insulated wire, AWG 30, having a minimum length of 6 inches (152.4 mm); they shall be insulated with polytetrafluoroethylene, stripped $.250 \pm .062$ (6.35 ± 1.57 mm) from the end and color code.
3. The picturization of the resistor above is a given representative of the envelope of the item. Slight deviations from the outline shown, which are contained within the envelope, and do not alter the functional aspects of the device are acceptable.

FIGURE 1. Flexible lead, variable wirewound trimmer.

TABLE I. Nominal resistance value.

Dash number -XXX	Nominal resistance value (in ohms)	Dash number -XXX	Nominal resistance value (in ohms)
100	10	202	2,000
200	20	502	5,000
500	50	103	10,000
101	100	203	20,000
201	200	253	25,000
501	500	353	35,000
102	1,000	503	50,000

3.3.4 Power rating. The power rating shall be 1.0 watt.

3.3.5 Operating torque. The operating torque shall be 5 ounce-inches maximum.

3.3.6 Operating temperature. The operating temperature shall be -65°C to $+150^{\circ}\text{C}$.

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3.3.7 Terminal. Resistors are available in flexible "L" type terminals.

3.3.8 Pure tin. The use of pure tin, as an underplate or final finish, is prohibited both internally and externally. Tin content of resistor components and solder shall not exceed 97 percent, by mass. Tin shall be alloyed with a minimum of 3 percent lead, by mass (see 6.3).

3.3.9 Resistance temperature characteristic. The resistance temperature characteristic shall be ± 50 PPM/ $^{\circ}$ C.

3.4 Marking. Marking shall be accordance with [MIL-STD-1285](#), except the resistors shall be marked with the PIN assigned herein, (see 1.2), manufacturer's identification code (CAGE or logo), and date and lot codes.

3.5 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.6 Manufacturer eligibility. To be eligible for listing as an approved source of supply, a manufacturer shall be listed on the [MIL-PRF-27208](#) Qualified Products List for at least one part, or perform the group A and group B inspections specified herein on a sample of parts agreed upon by the manufacturer and DLA Land and Maritime - VAT.

3.6.1 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a approved source of supply.

3.7 Workmanship. Resistors shall be processed in such a manner as to be uniform in quality and parts shall be free from any defects that will affect life, serviceability, or appearance.

4. VERIFICATION

4.1 Qualification inspection. Qualification inspection is not applicable to this document.

4.2 Conformance inspection.

4.2.1 Inspection of product for delivery. Inspection of product for delivery shall consist of the group A inspections of [MIL-PRF-27208](#).

4.2.1.1 Group A inspection. Group A inspection shall be in accordance with [MIL-PRF-27208](#).

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 materiel 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 activity within the Military Department 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 which may be helpful, but is not mandatory.)

6.1 Intended use. Resistors conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for the OEM application.

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6.2 Ordering data. The contract or purchase order should specify the following:

- a. Complete PIN (see 1.2).
- b. Requirements for delivery: One copy of the conformance inspection data or certification of compliance that parts have passed conformance inspection with each shipment of parts by the manufacturer.
- c. Requirements for packaging and packing.

6.3 Tin whisker growth. The use of alloys with tin content greater than 97 percent, by mass, may exhibit tin whisker growth problems after manufacture. Tin whiskers may occur anytime from a day to years after manufacture and can develop under typical operating conditions, on products that use such materials. Conformal coatings applied over top of a whisker-prone surface will not prevent the formation of tin whiskers. Alloys of 3 percent lead, by mass, have shown to inhibit the growth of tin whiskers. For additional information on this matter, refer to [ASTM-B545](#) (Standard Specification for Electrodeposited Coatings of Tin).

6.4 User of record. Coordination of this document for future revisions is coordinated only with the approved source of supply and the users of record of this document. Requests to be added as a recorded user of this drawing may be achieved online at resistor@dla.mil or in writing to: DLA Land and Maritime-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-8754 or DSN 850-8754.

6.5 Approved source of supply. Approved source of supply is listed herein. Additional sources will be added as they become available. Assistance in the use of this drawing may be obtained online at resistor@dla.mil or contact DLA Land and Maritime-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-8754 or DSN 850-8754.

DLA Land and Maritime drawing PIN	Vendors similar designation or type number ^{1/}	Vendor CAGE	Vendor's name and address
00001	117S	17826	Vishay Techno 7803 Lemona Van Nuys, CA 91405-1139

^{1/} Parts must be purchased to the DLA Land and Maritime PIN to assure that all performance requirements and test are met.

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