

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	Add requirements for termination finish (see 3.4); Editorial and DoD policy corrections throughout.	12 DEC 02	K. A. COTTONGIM

Prepared in accordance with ASME Y14.100

Selected item drawing

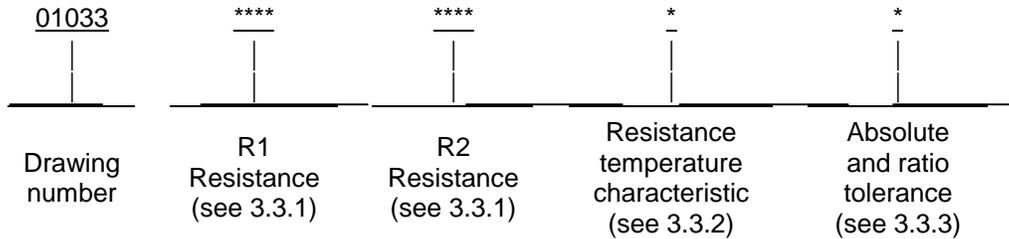
REV STATUS OF PAGES	REV	A	A	A	A	A	A	A										
	PAGES	1	2	3	4	5	6	7										

PMIC N/A	PREPARED BY Jesus V. Garcia III	DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH	
Original date of drawing: 26 February 2001	CHECKED BY Andrew Ernst	TITLE RESISTOR, FIXED, FILM, CHIP, VOLTAGE DIVIDER, STYLE 1206	
	APPROVED BY Kendall A. Cottongim		
	SIZE A	CODE IDENT. NO. 037Z3	DWG NO. 01033
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1. SCOPE

1.1 Scope. This drawing describes the requirements for a voltage divider, fixed film, chip resistor, style 1206.

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



2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. 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) as specified in the solicitation, form a part of this drawing to the extent specified herein.

SPECIFICATION

DEPARTMENT OF DEFENSE

MIL-PRF-55342 - Resistor, Fixed, Film, Chip, Nonestablished Reliability, Established Reliability, Space Level, General Specification for.

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-690 - Failure Rate Sampling Plans and Procedures.
 MIL-STD-790 - Standard Practice for Established Reliability and High Reliability Qualified Products List (QPL) Systems for Electrical, Electronic, and Fiber Optic Parts Specifications.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Document Automation and Production Service (DAPS), Building 4D (DPM-DoDSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

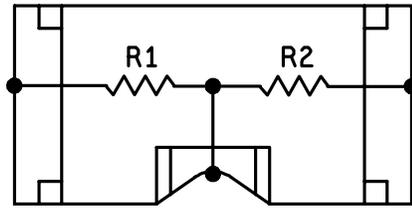
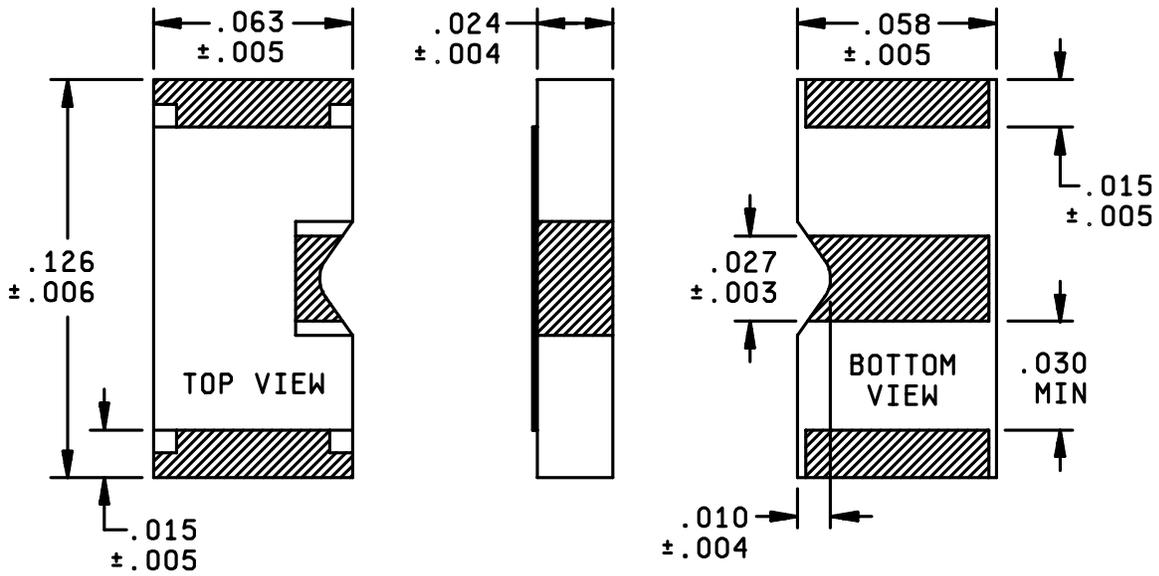
2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be as specified herein and MIL-PRF-55342.

3.2 Interface and physical dimensions. The resistor shall meet the interface and physical dimensions as specified in MIL-PRF-55342 and herein (see figure 1).

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SCHEMATIC

<u>Inches</u>	<u>mm</u>	<u>Inches</u>	<u>mm</u>	<u>Inches</u>	<u>mm</u>	<u>Inches</u>	<u>mm</u>
0.003	0.076	0.006	0.152	0.024	0.609	0.058	1.473
0.004	0.102	0.010	0.254	0.027	0.685	0.063	1.600
0.005	0.127	0.015	0.381	0.030	0.762	0.126	3.200

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The picturization of the resistor above is a given representation 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. RESISTOR, FIXED FILM, CHIP.

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3.3 Electrical characteristics.

3.3.1 Resistance. The nominal resistance expressed in ohms is identified by four digits; The first three digits represent the significant figures and the last digit specifies the number of zeros to follow. When the value of the resistance is less than 1,000 ohms, or when fractional values of an ohm are required, the "R" shall be substituted for one of the significant figures.

3.3.1.1 Resistance range.

3.3.1.1.1 Package resistance range. The package resistance range shall be 10 ohms to 200 kilohms.

3.3.1.1.2 Individual resistance range. The individual resistance range, per resistor, is 5 ohms to 125 kilohms.

3.3.2 Resistance temperature characteristic (RTC). The resistance temperature characteristic is identified by a single letter in accordance with table I.

TABLE I. Resistance temperature characteristic.

Symbol	Resistance temperature characteristic (RTC) in part per million (ppm)
E	25
H	50
K	100

3.3.3 Absolute and ratio tolerance. The absolute and ratio tolerances are identified by a single letter in accordance with table II.

TABLE II. Absolute and Ratio tolerances.

Symbol	Absolute tolerance (±)	Ratio tolerance (±)
A	0.05	0.05
B	0.05	0.10
C	0.05	0.50
D	0.05	1.00
E	0.10	0.05
F	0.10	0.10
G	0.10	0.50
H	0.10	1.00
J	0.50	0.05
K	0.50	0.10
M	0.50	0.50
N	0.50	1.00
P	1.00	0.05
R	1.00	0.10
S	1.00	0.50
T	1.00	1.00

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3.3.4 Power rating.

3.3.4.1 Package power rating. The package power rating is 0.250 watts.

3.3.4.2 Individual resistor power rating. The individual power rating per resistor is 0.125 watts.

3.3.5 Operating temperature. The operating temperature shall be -65°C to +150°C.

3.4 Termination material. Termination material shall be in accordance with MIL-PRF-55342, code letter B.

3.5 Moisture resistance. When resistors are tested as specified in 4.4.1.2.2, there shall be no evidence of mechanical damage; the change in resistance between the initial and final measurements shall not exceed the limits as specified in MIL-PRF-55342.

3.6 Marking. Marking of the individual chip resistors is not required; however, each unit package shall be marked in accordance with MIL-STD-1285 and include the PIN as specified herein (see 1.2), the manufacturer's name or Commercial and Government Entity (CAGE) code, date, and lot codes.

3.7 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable 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.

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

3.9 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 Reliability assurance program. The reliability assurance provisions specified in MIL-PRF-55342 and maintained in accordance with MIL-STD-790 are not applicable to this document.

4.3 Product level qualification. Product level qualification specified in MIL-PRF-55342 and MIL-STD-690 is not applicable to this document.

4.4 Conformance inspection.

4.4.1 Inspection of product for delivery. Inspection of product for delivery shall consist of group A (ER level) and group B inspections.

4.4.1.1 Group A inspection. Group A inspection (ER level) shall be in accordance with MIL-PRF-55342. PPM testing and verification as specified in MIL-PRF-55342 are not applicable to this document.

4.4.1.2 Group B inspection. Group B inspection shall be in accordance with MIL-PRF-55342.

4.4.1.2.1 Certification. The procuring activity may except a certificate of compliance in lieu of Group B inspection.

4.4.1.2.2 Moisture resistance. Moisture resistance shall be in accordance with MIL-PRF-55342.

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4.4.1.3 Visual and mechanical inspection. Resistors shall be examined to verify that the materials, design, construction, physical dimensions, marking, and workmanship are in accordance with the applicable requirements 3.2, 3.6, and 3.9.

4.5 Inspection of packaging. Inspection of packaging shall be in accordance with MIL-PRF-55342.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements will be as specified in the contract or order (see 6.2). When actual packaging of materiel 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 Departments 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 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. These items are suited for high current pulse applications and can be used as microwave terminations.

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 with each shipment of parts by the manufacturer.
- c. Packaging requirements (see 5.1). (i.e. Electrostatic discharge (ESD) sensitive packaging).
- d. Whether the manufacturer performs the group B tests or provides certification of compliance with group B requirements.

6.3 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 that specifies a preventive packaging procedure.

6.4 Users of record. Coordination of this document for future revisions are coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing should be in writing to: DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0553 or DSN 850-0553.

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6.5 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. For assistance in the use of this drawing, contact DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0553 or DSN 850-0553.

DSCC drawing PIN	Vendor similar designation or type number <u>1/</u>	Vendor CAGE	Vendor name and address
01033*****	PFC-D1206-03-****-****-*.*	57027	IRC, Inc. Advanced Film Division 4222 South Staples Corpus Christi, TX 78411

1/ Parts must be purchased to the DSCC PIN to assure that all performance requirements and tests are met.

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