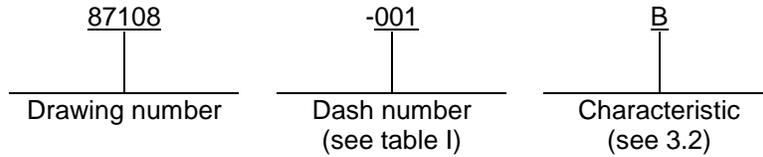


1. SCOPE

1.1 Scope. This drawing describes the requirements for a family of subminiature instrument type fuses for use in overcurrent protection.

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



2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 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).

SPECIFICATIONS

DEPARTMENT OF DEFENSE

MIL-PRF-15160 - Fuses, Instrument, Power, and Telephone, General Specification for.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Document Automation and Production Service, 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 Interface and physical dimensions.

3.2 Characteristic. Each number (see 1.2) will include a suffix representing either characteristic A or B. These characteristics are described in table I.

3.3 Voltage rating. See table II.

3.4 Current rating. See table II.

3.5 Dimensions and configurations. See figure 1.

3.6 Current-carrying capacity. Current-carrying capacity shall be in accordance with MIL-PRF-15160.

3.7 Overload interrupt. Overload interrupt shall be in accordance with MIL-PRF-15160 and table I.

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TABLE I. Characteristics.

Characteristic	Rating (percent)	Blow time
A	110	4 hours, minimum
A	135	1 hour, maximum
A	200	10 seconds, maximum
B	110	4 hours, minimum
B	135	1 hour, maximum
B	200	3 seconds, minimum 1 minute, maximum

TABLE II. Fuse dash number and applicable characteristics.

Part number 87108-	Current rating (amperes)	Configuration	Voltage rating	AC short circuit interrupt	
				125 volts ac	250 volts ac
001 <u>1</u> /	1/8	A	250	10,000 A	35 A
002 <u>1</u> /	1/8	B	250	10,000 A	35 A
003	1/4	A	250	10,000 A	35 A
004	1/4	B	250	10,000 A	35 A
005	3/8	A	250	10,000 A	35 A
006	3/8	B	250	10,000 A	35 A
007	1/2	A	250	10,000 A	35 A
008	1/2	B	250	10,000 A	35 A
009	6/10	A	250	10,000 A	35 A
010	6/10	B	250	10,000 A	35 A
011	3/4	A	250	10,000 A	35 A
012	3/4	B	250	10,000 A	35 A
013	8/10	A	250	10,000 A	35 A
014	8/10	B	250	10,000 A	35 A
015	1	A	250	10,000 A	35 A
016	1	B	250	10,000 A	35 A
017	1 1/4	A	250	10,000 A	100 A
018	1 1/4	B	250	10,000 A	100 A

See footnote at end of table.

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TABLE II. Fuse dash number and applicable characteristics - Continued.

Part number 87108-	Current rating (amperes)	Configuration	Voltage rating	AC short circuit interrupt	
				125 volts ac	250 volts ac
019	1 1/2	A	250	10,000 A	100 A
020	1 1/2	B	250	10,000 A	100 A
021	2	A	250	10,000 A	100 A
022	2	B	250	10,000 A	100 A
023	2 1/4	A	250	10,000 A	100 A
024	2 1/4	B	250	10,000 A	100 A
025	2 1/2	A	250	10,000 A	100 A
026	2 1/2	B	250	10,000 A	100 A
027	3	A	250	10,000 A	100 A
028	3	B	250	10,000 A	100 A
029	3 1/2	A	250	10,000 A	100 A
030	3 1/2	B	250	10,000 A	100 A
031	4	A	125	10,000 A	Not rated
032	4	B	125	400 A	Not rated
033	5	A	125	10,000 A	Not rated
034	5	B	125	400 A	Not rated
035	7	A	125	10,000 A	Not rated
036	7	B	125	400 A	Not rated

1/ Dash numbers 001 and 002 are available in characteristic "A" only.

3.8 Short circuit interrupt. Short circuit interrupt shall be in accordance with MIL-PRF-15160 and table II.

3.9 Insulation resistance. Insulation resistance shall be in accordance with MIL-PRF-15160.

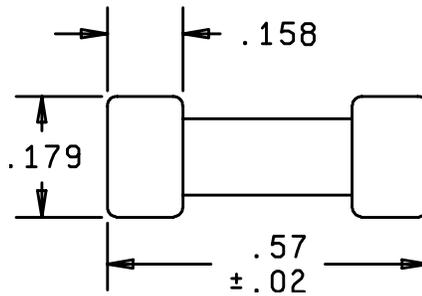
3.10 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous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

3.11 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a suggested source of supply (see 6.4).

3.12 Marking. Marking shall be in accordance with MIL-STD-1285, except the fuses shall be marked with the PIN as specified herein (see 1.2), the manufacturer's name or Commercial and Government Entity (CAGE) code, and date lot codes.

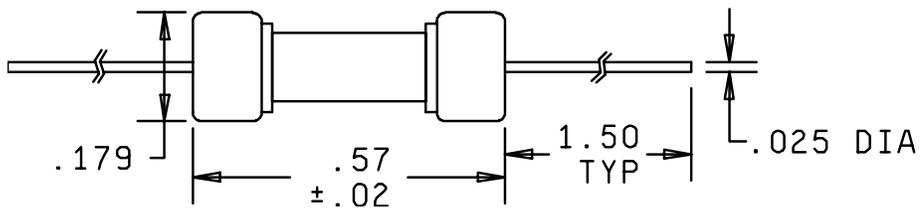
3.13 Workmanship. The fuse shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

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CONFIGURATION A

Inches	mm
.02	0.5
.025	0.64
.158	4.01
.179	4.54
.57	14.8
1.50	38.1



CONFIGURATION B

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configurations.

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4. VERIFICATION

4.1 Conformance inspection.

4.1.1 Inspection of product for delivery. Inspection of product for delivery shall consist of the group A and B inspections of MIL-PRF-15160.

4.1.2 Certification. The acquiring activity, at it's discretion, may accept a certificate of compliance with group A requirements in lieu of performing group A tests (see 6.2c).

4.1.3 Inspection of packaging. Inspection of packaging shall be in accordance with MIL-PRF-15160.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall 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 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. Devices 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 OEM application.

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

- a. Complete PIN (see 1.2).
- b. Requirements for delivery and one copy of the quality conformance inspection data or certificate of compliance that parts have passed quality conformance inspection with each shipment of parts by the manufacturer (when applicable, see 4.1.1).
- c. Whether the manufacturer performs the group A tests or provides certification of compliance with group A requirements.
- d. Requirements for notification of change in product to acquiring activity, if applicable.
- e. Requirements for packaging and packing.

6.3 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: Defense Supply Center, Columbus, DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0548 or DSN 850-0548.

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6.4 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, 3990 East Broad Street, Columbus, OH 43213-1199 or by telephone (614) 692-0548 or DSN 850-0548.

DSCC drawing PIN 87108- 1/	Vendor similar designation or type number 2/	Vendor CAGE	Vendor name, address and contact information
001	C518-125mA	71400	Cooper Bussmann, Inc. P. O. Box 14460 St. Louis, MO 63178-4460 Tel: (636) 394-2877 Fax: (800) 544-2570 E-mail: fusebox@buss.com URL: www.bussmann.com
002	C521-125mA		
003	C518-250mA		
004	C521-250mA		
005	C518-375mA		
006	C521-375mA		
007	C518-500mA		
008	C521-500mA		
009	N/A		
010	C521-600mA		
011	C518-750mA		
012	C521-750mA		
013	N/A		
014	N/A		
015	N/A		
016	C521-1A		
017	N/A		
018	C521-1.25A		
019	N/A		
020	C521-1.5A		
021	C518-2A		
022	C521-2A		
023	N/A		
024	C521-2.25A or C515-2.25A		
025	C518-2.5A		
026	C521-2.5A		
027	C518-3A		
028	C521-3A		
029	C518-3.5A		

See footnotes at end of table.

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DSCC drawing PIN 87108- <u>1/</u>	Vendor similar designation or type number <u>2/</u>	Vendor CAGE	Vendor name, address and contact information
030	N/A	71400	Cooper Bussmann, Inc. P. O. Box 14460 St. Louis, MO 63178-4460 Tel: (636) 394-2877 Fax: (800) 544-2570 E-mail: fusebox@buss.com URL: www.bussmann.com
031	N/A		
032	C521-4A		
033	N/A		
034	C521-5A		
035	N/A		
036	N/A		

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

2/ CAUTION: Do not use this number for item acquisition and marking. Items acquired to this number may not satisfy the performance requirements of this drawing.

DSCC drawing PIN 87108- <u>1/</u>	Vendor similar designation or type number <u>2/ 3/</u>	Vendor CAGE	Vendor name, address and contact information
001	2XX.125	75915	Littelfuse Inc. 800 E. Northwest Highway Des Plaines, IL 60016-3096 Tel: (847) 824-1188 Fax: (847) 391-0894 E-mail: electronics@littelfuse.com URL: www.littelfuse.com
002	2XX.125		
003	2XX.250		
004	2XX.250		
005	2XX.375		
006	2XX.375		
007	2XX.500		
008	2XX.500		
009	2XX.600		
010	2XX.600		
011	2XX.750		
012	2XX.750		
013	2XX.800		
014	2XX.800		
015	2XX001		
016	2XX001		
017	2XX1.25		
018	2XX1.25		
019	2XX01.5		
020	2XX01.5		

See footnotes at end of table.

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DSCC drawing PIN 87108- <u>1/</u>	Vendor similar designation or type number <u>2/</u> <u>3/</u>	Vendor CAGE	Vendor name, address and contact information
021	2XX002	75915	Littelfuse Inc. 800 E. Northwest Highway Des Plaines, IL 60016-3096 Tel: (847) 824-1188 Fax: (847) 391-0894 E-mail: electronics@littelfuse.com URL: www.littelfuse.com
022	2XX002		
023	2XX2.25		
024	2XX2.25		
025	2XX02.5		
026	2XX02.5		
027	2XX003		
028	2XX003		
029	2XX03.5		
030	2XX03.5		
031	2XX004		
032	2XX004		
033	2XX005		
034	2XX005		
035	2XX007		
036	2XX007		

- 1/ Parts must be purchased to this DSCC PIN to assure all performance requirements and tests are met.
- 2/ CAUTION: Do not use this number for item acquisition and marking. Items acquired to this number may not satisfy the performance requirements of this drawing.
- 3/ XX represents 88, 89, 90, or 91. This designation is determined on whether the fuse is fast-acting (characteristic A) or slow-blow (characteristic B) and whether the fuse is leadless or contain leads. Series 88 is leadless and is fast-acting. Series 89 contains leads and is fast-acting. Series 90 is leadless and is a slow-blow. Series 91 contains leads and is a slow-blow.

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