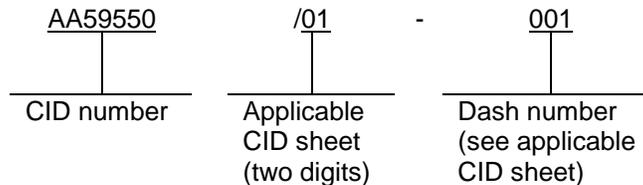


COMMERCIAL ITEM DESCRIPTION

FUSE, INCLOSED LINK, THIN-FILM, SURFACE MOUNT (SM),
0603 SIZE, VERY FAST ACTING

The General Services Administration has authorized the use of this commercial item description (CID) for all federal agencies.

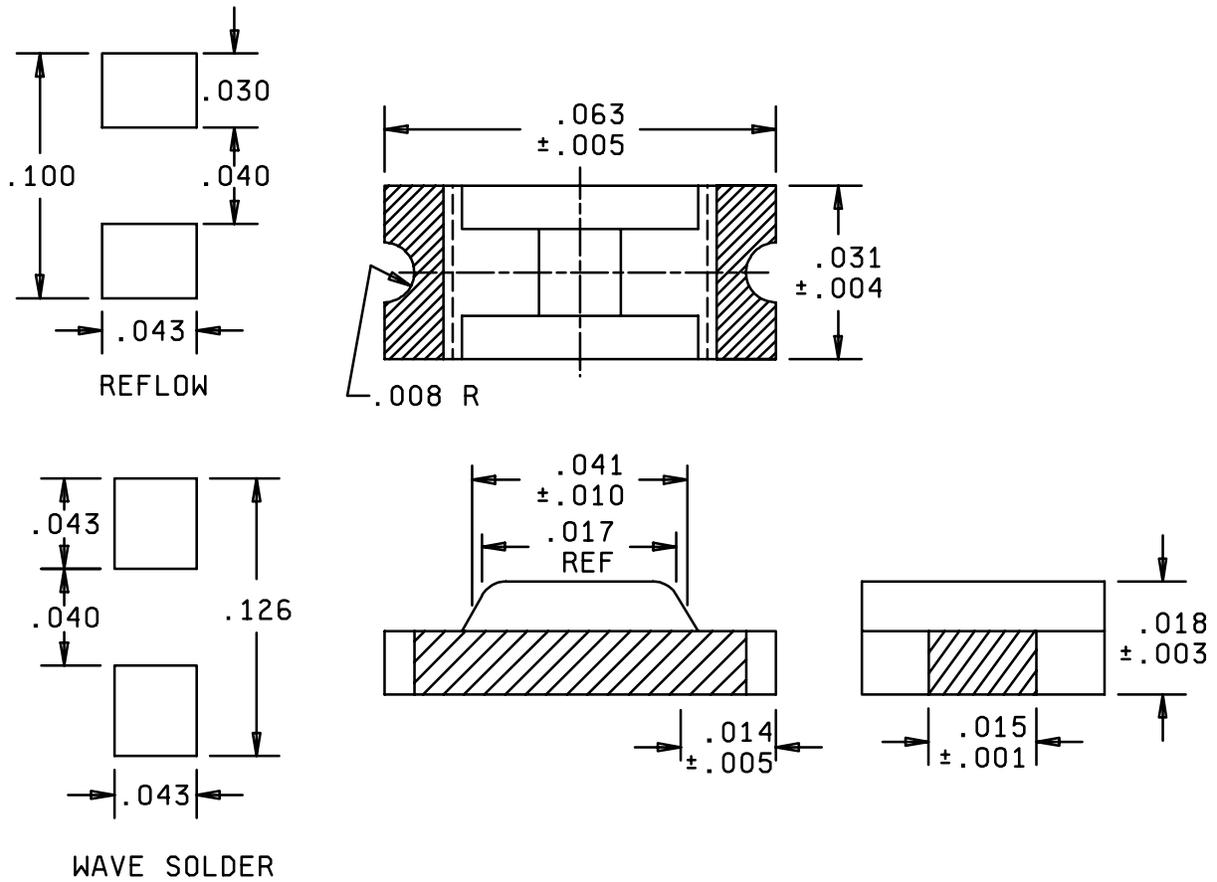
1. SCOPE. This CID covers the general requirements for very fast acting, surface mount, thin-film, inclosed link fuse in a 0603 chip size. Fuses covered by this CID are intended for commercial/industrial applications.
2. CLASSIFICATION. This CID uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see 7.1).



3. SALIENT CHARACTERISTICS.

- 3.1 Interface and physical dimensions. Fuses supplied to this CID shall be as specified herein (see figure 1).
- 3.2 Electrical specifications.
 - 3.2.1 Ampere rating. The ampere rating shall be as specified in table I.
 - 3.2.2 Voltage rating. The voltage rating shall be 32 V ac/dc.
 - 3.2.3 Interrupting ratings. The interrupting rating shall be 50 amperes at 32 Vac/dc for ampere ratings of 0.25 ampere through 1 ampere and 35 amperes at 32 Vac/dc for ampere ratings of 1.5 amperes through 5 amperes.
 - 3.2.4 Opening time characteristics. The opening time characteristics shall be as indicated in table II.

Beneficial comments recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be addressed to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43213-1199, or telephone (614) 692-0548, or facsimile (FAX) (614) 692-6939.



Inches	mm	Inches	mm
.001	0.03	.018	0.46
.003	0.08	.030	0.76
.004	0.10	.031	0.79
.005	0.13	.040	1.02
.008	0.20	.041	1.04
.010	0.25	.043	1.09
.014	0.36	.063	1.60
.015	0.38	.100	2.54
.017	0.43	.126	3.20

NOTES:

1. Dimensions are in inches.
2. Tolerance is ±.005 inch(0.13 mm), unless otherwise specified.

FIGURE 1. Configuration and dimensions.

TABLE I. Electrical characteristics.

AA59450/01-	Ampere rating	Nominal resistance cold ohm <u>1/</u>	Nominal voltage drop (V) <u>2/</u>
001	1/4	0.340	0.130
002	3/8	0.218	0.084
003	1/2	0.170	0.120
004	3/4	0.100	0.110
005	1	0.072	0.100
006	1 1/2	0.049	0.082
007	2	0.036	0.077
008	2 1/2	0.028	0.089
009	3	0.023	0.080
010	3 1/2	0.019	0.090
011	4	0.017	0.100
012	5	0.013	0.107

1/ Measured at 10 percent of rated current, 25°C.

2/ Measured at 100 percent of rated current, 25°C.

TABLE II. Opening time characteristics.

Percent of ampere rating	Opening time at 25°C
100 percent	4 hours, minimum
200 percent	5 seconds, maximum
300 percent	0.2 seconds, maximum

3.3 Environmental specifications. Fuses supplied to this CID shall be subject to the following tests and there shall be no electrical or mechanical damage to the fuse.

3.3.1 Operating temperature. The operating temperature shall be -55°C to +125°C.

3.3.2 Vibration. Fuses shall withstand 10 Hz - 55 Hz in accordance with method 201A, MIL-STD-202 and 10 Hz – 2000 Hz at 20 G's in accordance with method 204D, condition D of MIL-STD-202.

3.3.3 Insulation resistance (after opening). The insulation resistance after opening shall be 500,000 ohms minimum.

3.3.4 Resistance to soldering heat. Fuses shall be able to withstand 60 seconds above 200°C up to 260°C , maximum.

3.3.5 Thermal shock. Fuses shall be able to withstand 5 cycles of -55°C to +125°C.

3.4 Physical specifications.

3.4.1 Materials. Fuses shall have an epoxy substrate body, Copper/Nickel/Tin-lead (95/5), cover coat of conformal coating.

3.4.2 Soldering parameters. Fuses shall be able to withstand, without electrical or mechanical damage to the fuse, a wave solder of +260°C (+500°F) for 10 seconds maximum, and a reflow solder of +260°C (+500°F) for 30 seconds maximum.

3.5 Marking. Fuses supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN.

3.6 Recycled/recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4. REGULATORY REQUIREMENTS. This section is not applicable to this CID sheet.

5. QUALITY ASSURANCE PROVISIONS. Quality assurance provisions shall be as specified in A-A-59550.

6. PACKAGING. Packaging shall be as specified in A-A-59550. In addition, fuses may be supplied individually or in a quantity of 5,000 on an .315 inch (8 mm) wide tape reel in accordance with EIA-RS 481-1.

7. NOTES.

7.1 PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See section 2 for PIN format example.

7.2 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these fuses to DSCC under the Military Parts control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

7.3 Source of documents.

Military standards

MIL-STD-202 - Test Method Standard Electronic and Electrical Component Parts.

(Copies of federal specifications and standards are available from the Document Automation and Production Service, Building 4D (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

Commercial Item Description

7.3 Source of documents. This section is not applicable to this CID.

Commercial Item Description

A-A-59550 - Fuse, Inclosed Link, Thin Film, Surface Mount (SM), General Requirements for.

(Copies of commercial item descriptions are available from the Defense Automation and Production Service, Building 4D (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

Other Publications

AMERICAN NATIONAL STANDARDS INSTITUTE/ELECTRONICS INDUSTRIES ALLIANCE (ANSI/EIA)

ANSI/EIA-481-1 - Taping of Surface Mount Components for Automatic Placement.

(Applications for copies should be addressed to the American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002.)

(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

7.4 Ordering data. Ordering data shall be as specified in A-A-59550.

7.5 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer's CAGE</u>	<u>Manufacturer's name and address</u>
75915	Littelfuse Incorporated 800 E. Northwest Highway Des Plaines, IL 60016-3096 (847) 824-1188

7.6 Part number (P/N) supersession data. This CID supersedes the following manufacturers' P/N's as shown. This information is being provided to assist in reducing proliferation in the government inventory system.

TABLE II. P/N supersession data.

CID dash number (see table I)	Vendor commercial P/N <u>1/</u>	
AA59550/01-	MFR's CAGE	MFR's P/N <u>1/</u>
001	75915	431.250
002	75915	431.375
003	75915	431.500
004	75915	431.750
005	75915	431001
006	75915	43101.5
007	75915	431002
008	75915	43102.5
009	75915	431003
010	75915	43103.5
011	75915	431004
012	75915	431005

1/ The manufacturer's P/N shall not be used for procurement to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID P/N shown.

7.7 Government users. To acquire information on obtaining these fuses from the Government inventory system, contact Defense Supply Center, Columbus, ATTN: DSCC-CSBA, Post Office Box 3990, Columbus, OH 43216-5000, or telephone (614) 692-8508.

A-A-59550/1

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

Preparing Activity:

DLA-CC

Project 5920-0615-01