Next

AXIAL LEAD AND CARTRIDGE FUSES

SUBMINIATURE

PICO® II Very Fast-Acting Type Fuse

The PICO® II very fast-acting fuse is designed to meet an extensive array of performance characteristics in a space-saving subminiature package.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/16–15	4 hours, **Min**imum
200%	1/16–7	1 second, **Max**imum
	10	3 seconds, **Max**imum
	12–15	10 seconds, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

REFERENCE TO MIL SPEC: Available in Military QPL type FM10, conforming to MIL-PRF-23419. To order, change **251** to **253** as shown below.

INTERRUPTING RATINGS:
300 amperes at rated voltage VDC.
50 amperes at rated voltage VAC.

ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Moisture Resistance: MIL-STD-202, Method 106.

PHYSICAL SPECIFICATIONS:
Materials: Encapsulated, Epoxy-Coated Body; Solder Coated Copper Wire Leads.
Flammability Rating: UL 94V0
Soldering Parameters:
Wave Solder — 260°C, 10 seconds maximum.
Solderability: MIL-STD-202, Method 208.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand a 7 lb. axial pull test).

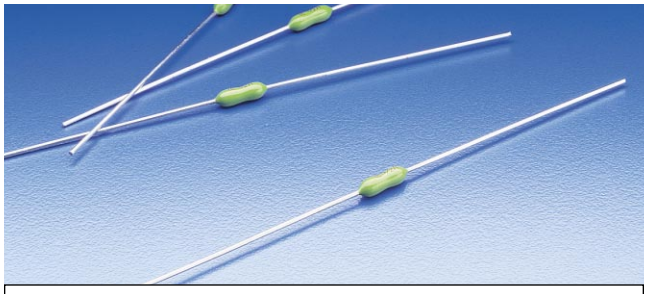
PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 2.062" (52.4mm) taped spacing; 5,000 per reel.
Option: Radial Lead Version; 0.4" lead spacing; to order, change **251** to **252**.

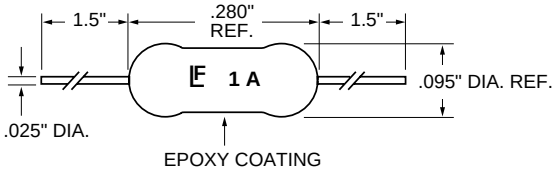
PATENTED

ORDERING INFORMATION:

Std. Type Catalog Number	Mil. Type Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
R251.062	**R253**.062	1/16	125	7.0	0.000113
R251.125	**R253**.125	1/8	125	1.70	0.00174
R251.250	**R253**.250	1/4	125	0.665	0.0116
R251.375	**R253**.375	3/8	125	0.395	0.0296
R251.500	**R253**.500	1/2	125	0.280	0.0598
R251.750	**R253**.750	3/4	125	0.175	0.153
R251 001	**R253** 001	1	125	0.128	0.256
R251 01.5	**R253** 01.5	1½	125	0.0823	0.587
R251 002	**R253** 002	2	125	0.0473	0.405
R251 02.5		2½	125	0.0360	0.721
R251 003	**R253** 003	3	125	0.0290	1.19
R251 03.5		3½	125	0.0240	1.58
R251 004	**R253** 004	4	125	0.0204	2.45
R251 005	**R253** 005	5	125	0.0155	4.14
R251 007	**R253** 007	7	125	0.0105	10.4
R251 010	**R253** 010	10	125	0.00705	25.5
R251 012		12	32	0.0055	45.2
R251 015	**R253** 015	15	32	0.00446	68.8

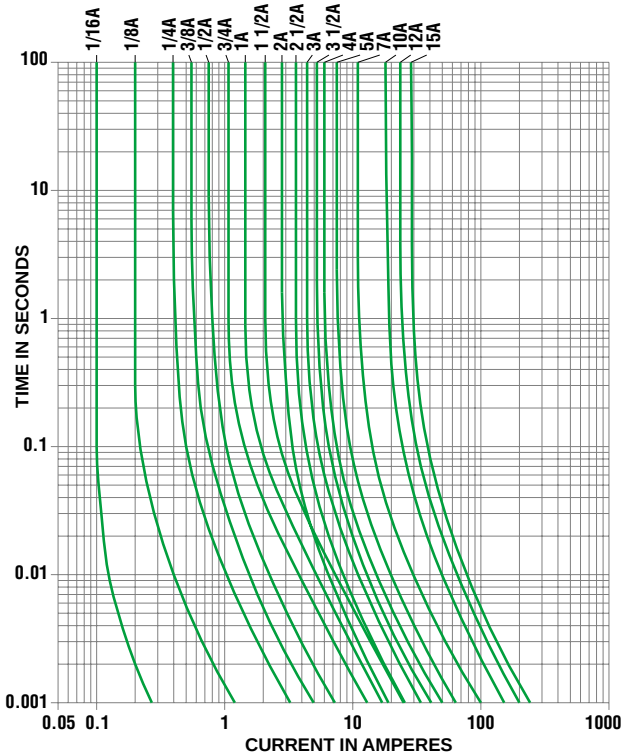
Note: Higher Ampere Ratings Available.
Contact Technical Assistance for Details





NOTE: .025" diameter for 1/16–10A, .032" diameter for 12–15A.

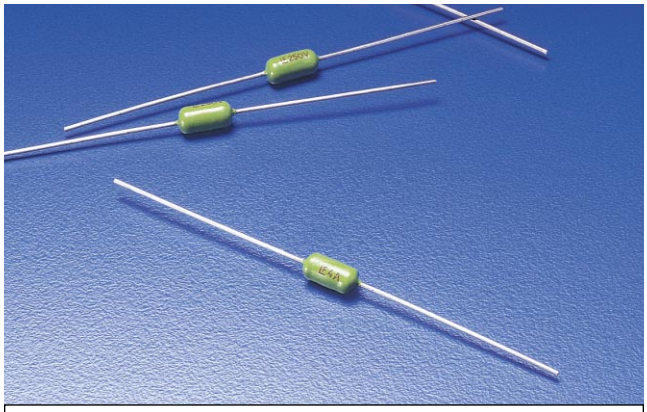
Average Time Current Curves



SUBMINIATURE

PICO® II 250 Volt Very Fast-Acting Type Fuse

The PICO® II 250 Volt Fuse is a specially designed axial leaded fuse that achieves a 250 volt rating in a small package.



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	4 hours, **Min**imum
200%	1 second, **Max**imum
300%	0.1 second, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATING:
50 amperes at 250 VAC.

ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); MIL-STD-202, Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Salt Spray: MIL-STD-202, Method 101, Test Condition B (48 hrs.).
Insulation Resistance (After Opening): MIL-STD-202, Method 302, Test Condition A (10,000 ohms minimum at 100 volts).
Resistance to Soldering Heat: MIL-STD-202, Method 210, Test Condition C (10 sec at 260°C).
Thermal Shock: MIL-STD-202, Method 107, Test Condition B (–55°C to 125°C).
Moisture Resistance: MIL-STD-202, Method 106.

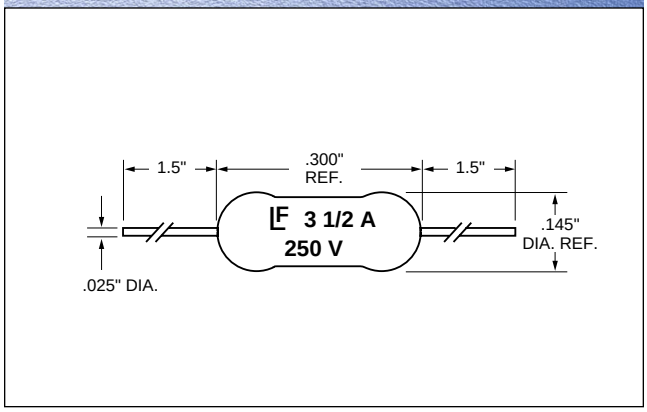
PHYSICAL SPECIFICATIONS:
Materials: Encapsulated, Epoxy-Coated Body; Solder Coated Copper Leads.
Soldering Parameters:
Wave Solder — 260°C, 10 seconds maximum.
Solderability: MIL-STD-202, Method 208.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand 7 lb. axial pull test).

PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 2.062" (52.4mm) taped spacing; 4,000 per reel.

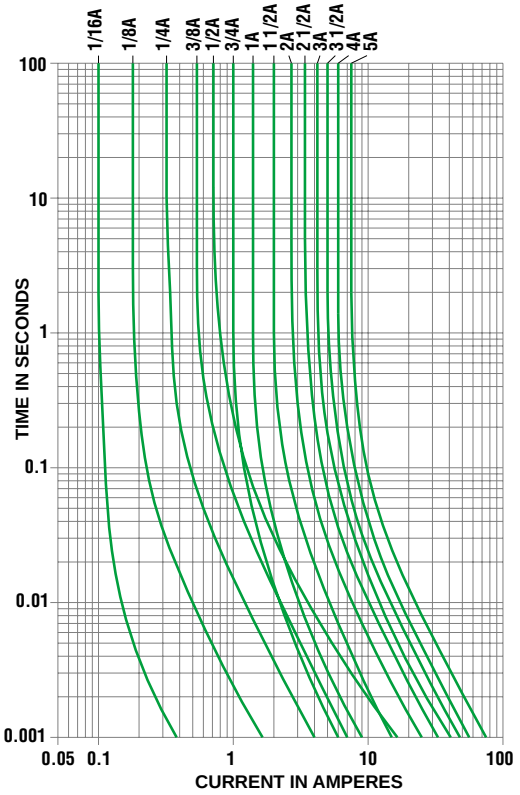
PATENTED

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
263.062	1/16	250	5.50	0.000192
263.125	1/8	250	1.75	0.00251
263.250	1/4	250	1.2	0.0165
263.375	3/8	250	0.730	0.0444
263.500	1/2	250	0.510	0.1125
263.750	3/4	250	0.300	0.0411
263 001	1	250	0.210	0.087
263 01.5	1½	250	0.0560	0.398
263 002	2	250	0.0420	0.74
263 02.5	2½	250	0.0335	1.197
263 003	3	250	0.0280	1.77
263 03.5	3½	250	0.0238	2.33
263 004	4	250	0.0210	3.08
263 005	5	250	0.0180	5.55



Average Time Current Curves



SUBMINIATURE

PICO® II Time Lag Type Fuse 471 Series

- The PICO® II time-lag fuse is designed for applications that require moderate inrush withstand.
- For additional inrush withstand, consult the 473 Series.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	4 hours, **Min**imum
200%	120 seconds, **Max.**

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATINGS:
50 amperes at 125 VAC and VDC.

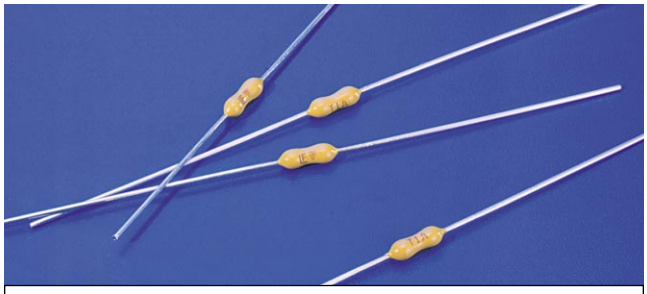
ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Moisture Resistance: MIL-STD-202, Method 106.

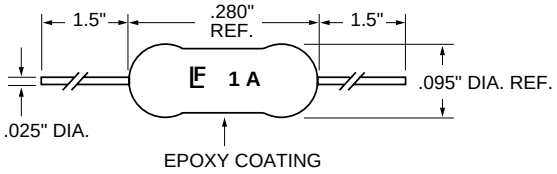
PHYSICAL SPECIFICATIONS:
Materials: Encapsulated, Epoxy-Coated Body; Solder Coated Copper Wire Leads.
Flammability Rating: UL 94V0
Soldering Parameters:
Wave Solder — 260°C, 10 seconds maximum.
Solderability: MIL-STD-202, Method 208.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand a 7 lb. axial pull test).

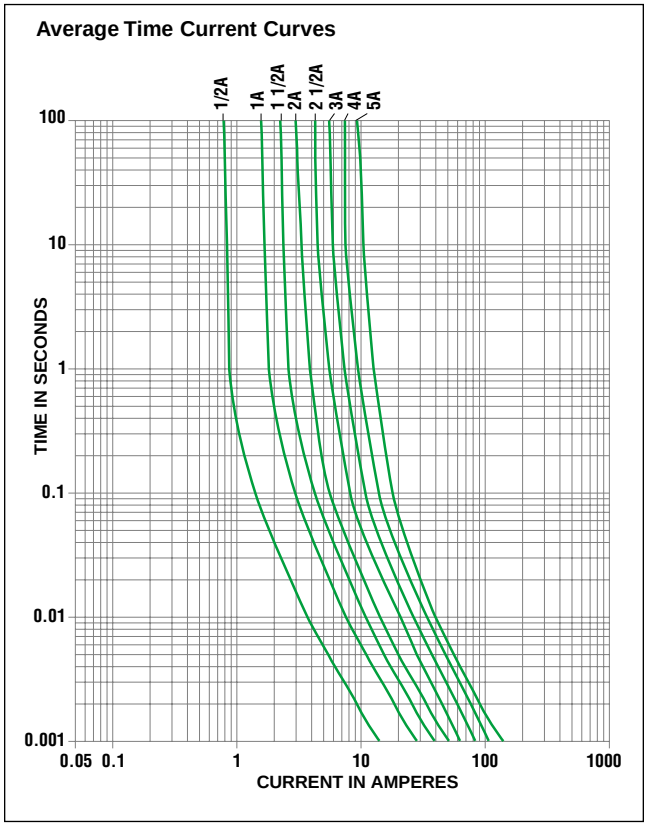
PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; 5,000 per reel.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
0471.500	1/2	125	0.189	0.159
0471 001.	1	125	0.085	0.722
0471 01.5	1½	125	0.054	1.610
0471 002.	2	125	0.039	2.500
0471 02.5	2½	125	0.030	4.390
0471 003.	3	125	0.023	6.960
0471 004.	4	125	0.012	10.600
0471 005.	5	125	0.008	15.400







SUBMINIATURE

PICO® II Slo-Blo® Type Fuse

The PICO® II Slo-Blo® fuse combines time delay performance characteristics with the proven reliability of a PICO® fuse.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	4 hours, **Min**imum
200%	1 second, **Min.;** 60 seconds, **Max.**
300%	0.2 second, **Min.;** 3 seconds, **Max.**
800%	0.02 second, **Min.;** 0.1 second, **Max**.

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATING:
50 amperes at 125 VDC/VAC

ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); MIL-STD-202, Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Salt Spray: MIL-STD-202, Method 101, Test Condition B.
Insulation Resistance (After Opening): MIL-STD-202, Method 302, (10,000 ohms minimum at 100 volts).
Resistance to Soldering Heat: MIL-STD-202, Method 210, Test Condition C (20 sec at 260°C).
Thermal Shock: MIL-STD-202, Method 107, Test Condition B (–65°C to 125°C).
Moisture Resistance: MIL-STD-202, Method 106 (90–98% RH), Heat (65°C).

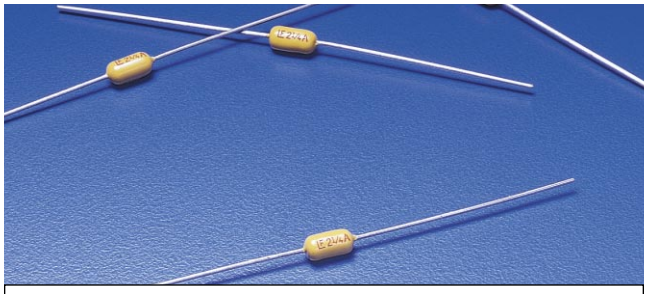
PHYSICAL SPECIFICATIONS:
Materials: Encapsulated, Epoxy-Coated Body; Solder Coated Copper Wire Leads.
Soldering Parameters:
Wave Solder — 260°C, 3 seconds maximum.
Solderability: MIL-STD-202, Method 208.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand a 10 lb. axial pull test).

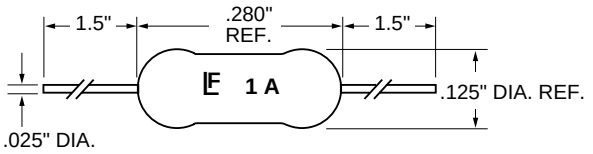
PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 2.062" (52.4mm) taped spacing; 4,000 per reel.

PATENTED

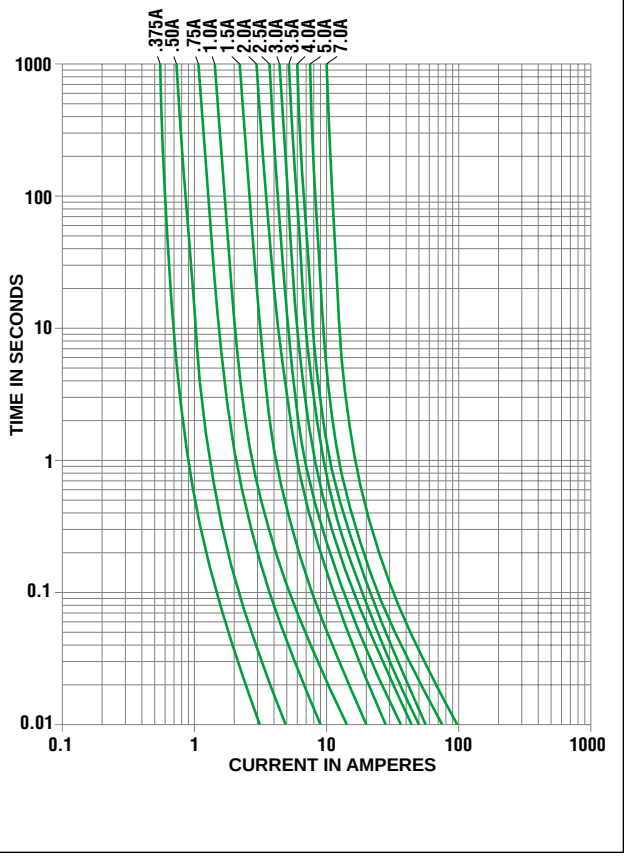
ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
473.375	3/8	125	1.74	0.0850
473.500	1/2	125	1.13	0.210
473.750	3/4	125	0.460	0.760
473 001	1	125	0.267	2.01
473 01.5	1 1/2	125	0.116	3.94
473 002	2	125	0.0712	7.60
473 2.25	2 1/4	125	0.0630	9.28
473 02.5	2 1/2	125	0.0520	13.0
473 003	3	125	0.0380	21.0
473 03.5	3 1/2	125	0.0240	26.8
473 004	4	125	0.0194	35.0
473 005	5	125	0.0133	54.8
473 007	7	125	0.0092	105.0





Average Time Current Curves



HIGH-RELIABILITY SUBMINIATURE

PICO® Fuse Very Fast-Acting Type Fuse

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/16–15	4 hours, **Min**imum
200%	1/16–7	1 second, **Max**imum
	10	3 seconds, **Max**imum
	15	10 seconds, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: 265 Series (except 1/16 ampere rating) is available in Military QPL Type (FM08A), conforming to MIL-PRF-23419/8. To order, change **265** to **267**.

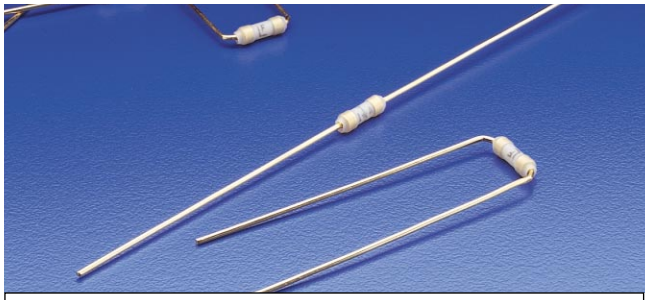
INTERRUPTING RATINGS:
300 amperes at rated voltage VDC
50 amperes at rated voltage VAC

ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); MIL-STD-202, Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Salt Spray: MIL-STD-202, Method 101, Test Condition B.
Seal Test: MIL-STD-202, Method 112, Test Condition A.
Insulation Resistance (After Opening): MIL-STD-202, Method 302, Test Condition A (1/2 Megohm minimum).
Thermal Shock: MIL-STD-202, Method 107, Test Condition B (–65°C to 125°C).
Moisture Resistance: MIL-STD-202, Method 106.

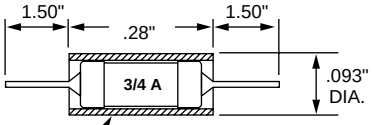
PHYSICAL SPECIFICATIONS:
Materials: Gold-Plated Copper Leads, Type II
Weight: .32 Grams
Solderability: MIL-STD-202, Method 208.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand a 5 lb. axial pull test).
AQL (Electrical Characteristics): Certified to 1% AQL.
Sampling: Per MIL-STD-105, Inspection Level II.
Traceability and Identification Records: Controlled by lot number and retained on file for a minimum of three years. Copies of Lot Certification Test data available when requested with order.

OPTIONS: Special screening tests, burn-in, etc. can be supplied on special order to meet specific requirements. For information on higher current ratings, contact Littelfuse.

PATENTED

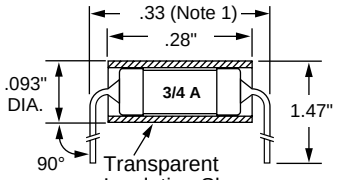


265 000 **Series**



Transparent Insulating Sleeve

266 000 **Series**



Transparent Insulating Sleeve

(Note 1: .36" for 15 amp rating)

ORDERING INFORMATION:

Axial Lead Catalog Number	Radial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms
265.062	**266**.062	1/16	125	7.0
265.125	**266**.125	1/8	125	2.1
265.250	**266**.250	1/4	125	0.71
265.375	**266**.375	3/8	125	0.42
265.500	**266**.500	1/2	125	0.28
265.750	**266**.750	3/4	125	0.17
265 001	**266** 001	1	125	0.125
265 01.5	**266** 01.5	1½	125	0.08
265 002	**266** 002	2	125	0.055
265 02.5	**266** 02.5	2½	125	0.042
265 003	**266** 003	3	125	0.03515
265 004	**266** 004	4	125	0.023
265 005	**266** 005	5	125	0.014
265 007	**266** 007	7	125	0.01
265 010	**266** 010	10	125	0.00645
265 015	**266** 015	15	32	0.004

Please contact Littelfuse for Average Time Current Curve.

HIGH-RELIABILITY SUBMINIATURE

MICRO™ FUSE Very Fast-Acting Type

QPL

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/500–5	4 hours, **Min**imum
200%	1/500–3/10	5 seconds, **Max**imum
	4/10–5	2 seconds, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

FUSES TO MIL SPEC: 262 Series is available in Military QPL Type (FM07A), conforming to MIL-PRF-23419/7. To order, change **262** to **269**.

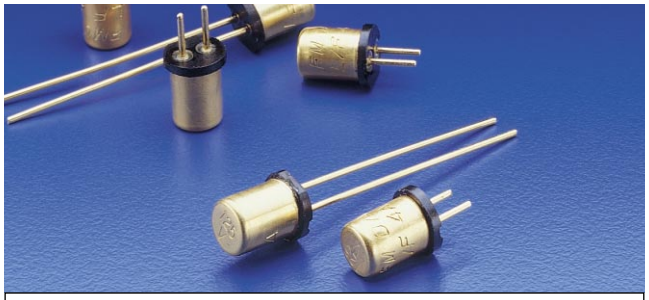
INTERRUPTING RATING:
10,000 amperes at 125 VAC/VDC

ENVIRONMENTAL SPECIFICATIONS:
Operating Temperature: –55°C to 125°C.
Shock: (1/500): MIL-STD-202, Method 213, Test Condition A (50 G's peak for 11 milliseconds).
(1/200–5): MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).
Vibration: MIL-STD-202, Method 201 (10–55 Hz); MIL-STD-202, Method 204, Test Condition C (55–2000 Hz at 10 G's Peak).
Salt Spray: MIL-STD-202, Method 101, Test Condition B.
Seal Test: MIL-STD-202, Method 112, Test Condition A
Insulation Resistance (After Opening): MIL-STD-202, Method 302, Test Condition A (1/2 Megohm minimum).
Thermal Shock: MIL-STD-202, Method 107, Test Condition B (–65°C to 125°C).
Moisture Resistance: MIL-STD-202, Method 106.

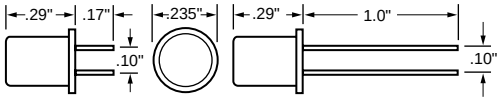
PHYSICAL SPECIFICATIONS:
Materials: Gold-Plated Copper Leads, Type II (Fuse cap is also Gold-Plated).
Weight: 262 and **269** Series .36 Grams; **268** Series .48 Grams.
Lead Pull Force: MIL-STD-202, Method 211, Test Condition A (will withstand a 5 lb. axial pull test).
AQL (Electrical Characteristics): Certified to 1% AQL.
Sampling: Per MIL-STD-105, Inspection Level II.
Traceability and Identification Records: Controlled by lot number and retained on file for a minimum of three years. Copies of Lot Certification Test data available when requested with order.

OPTIONS: Special screening tests, burn-in, etc. can be supplied on special order to meet specific requirements.

PATENTED



262 000 **Series** **268** 000 **Series**



ORDERING INFORMATION:

Plug-In Catalog Number	Radial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms
262.002	**268**.002	1/500	125	2000
262.005	**268**.005	1/200	125	280
262.010	**268**.010	1/100	125	94.0
262.015	**268**.015	1/64	125	44.0
262.031	**268**.031	1/32	125	16.45
262.050	**268**.050	1/20	125	3.20
262.062	**268**.062	1/16	125	2.25
262.100	**268**.100	1/10	125	1.17
262.125	**268**.125	1/8	125	1.0
262.200	**268**.200	2/10	125	2.30
262.250	**268**.250	1/4	125	1.75
262.300	**268**.300	3/10	125	1.25
262.400	**268**.400	4/10	125	0.227
262.500	**268**.500	1/2	125	0.167
262.600	**268**.600	6/10	125	0.140
262.700	**268**.700	7/10	125	0.114
262.750	**268**.750	3/4	125	0.104
262.800	**268**.800	8/10	125	0.094
262 001	**268** 001	1	125	0.100
262 01.5	**268** 01.5	1½	125	0.063
262 002	**268** 002	2	125	0.046
262 003	**268** 003	3	125	0.034
262 004	**268** 004	4	125	0.019
262 005	**268** 005	5	125	0.018

Please contact Littelfuse for Average Time Current Curve.

SUBMINIATURE

MICRO™ FUSE Very Fast-Acting Type

QPL

Developed originally for the U.S. Space Program, MICRO fuse provides reliability in an extra compact design. The MICRO fuse is available in plug in or radial lead styles and a complete range of ampere ratings from 1/500 to 5 amperes to suit a wide variety of design needs.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/500–5	4 hours, **Min**imum
200%	1/500–3/10	5 seconds, **Max**imum
	4/10–5	2 seconds, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATING:
10,000 amperes at 125 VAC/VDC.

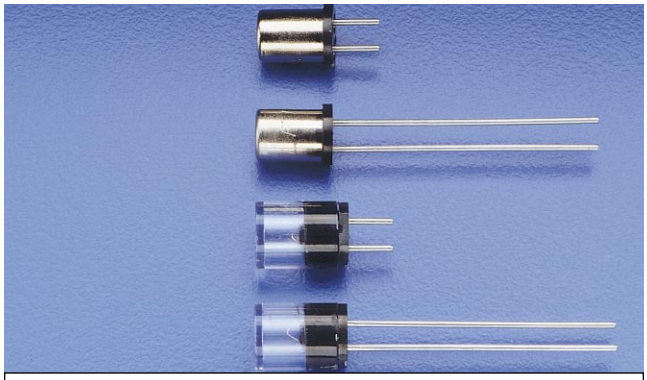
FUSES TO MIL SPEC: 273 Series is available in Military QPL type (FM02). To order, change **273** to **274**.

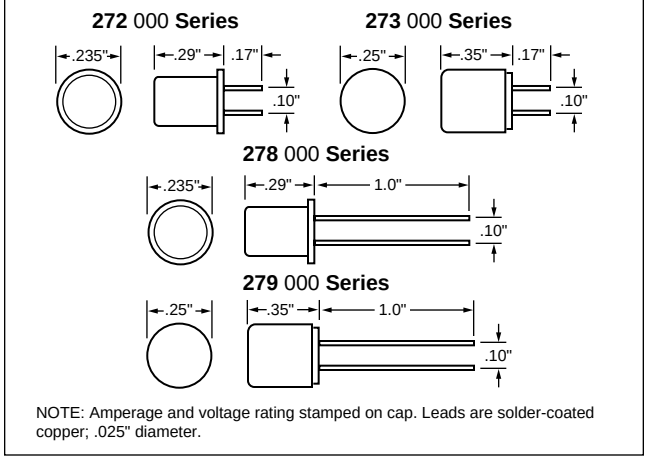
Operating Temperature:
273 and **279:** –55°C to 85°C.
272 and **278:** –55°C to 125°C

PATENTED

ORDERING INFORMATION:

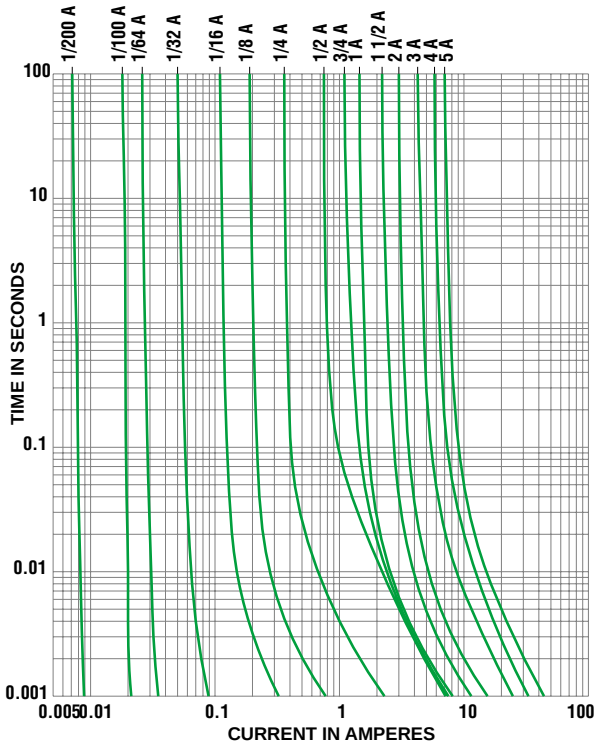
Plug-In		Radial Lead					
Catalog Number	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
272.002	**273**.002	**278**.002	**279**.002	1/500	125	2200	0.00000000845
272.005	**273**.005	**278**.005	**279**.005	1/200	125	280	0.0000000810
272.010	**273**.010	**278**.010	**279**.010	1/100	125	80.0	0.000000462
272.015	**273**.015	**278**.015	**279**.015	1/64	125	44.0	0.00000123
272.031	**273**.031	**278**.031	**279**.031	1/32	125	16.0	0.00000810
272.050	**273**.050	**278**.050	**279**.050	1/20	125	3.20	0.0000666
272.062	**273**.062	**278**.062	**279**.062	1/16	125	2.32	0.000115
272.100	**273**.100	**278**.100	**279**.100	1/10	125	1.25	0.000385
272.125	**273**.125	**278**.125	**279**.125	1/8	125	1.0	0.000691
272.200	**273**.200	**278**.200	**279**.200	2/10	125	2.30	0.00409
272.250	**273**.250	**278**.250	**279**.250	1/4	125	1.75	0.00640
272.300	**273**.300	**278**.300	**279**.300	3/10	125	1.25	0.00945
272.400	**273**.400	**278**.400	**279**.400	4/10	125	0.227	0.0251
272.500	**273**.500	**278**.500	**279**.500	1/2	125	0.167	0.0716
272.600	**273**.600	**278**.600	**279**.600	6/10	125	0.430	0.0411
272.700	**273**.700	**278**.700	**279**.700	7/10	125	0.324	0.0710
272.750	**273**.750	**278**.750	**279**.750	3/4	125	0.293	0.0900
272.800	**273**.800	**278**.800	**279**.800	8/10	125	0.271	0.113
272 001	**273** 001	**278** 001	**279** 001	1	125	0.0880	0.0648
272 01.5	**273** 01.5	**278** 01.5	**279** 01.5	1½	125	0.0578	0.160
272 002	**273** 002	**278** 002	**279** 002	2	125	0.0425	0.300
272 003	**273** 003	**278** 003	**279** 003	3	125	0.0275	0.759
272 004	**273** 004	**278** 004	**279** 004	4	125	0.0202	1.38
272 005	**273** 005	**278** 005	**279** 005	5	125	0.0156	2.21





NOTE: Amperage and voltage rating stamped on cap. Leads are solder-coated copper; .025" diameter.

Average Time Current Curves



SUBMINIATURE GLASS BODY

2AG Fast-Acting Type

MIL

The 2AG Fast-Acting fuses are available in cartridge form or with axial leads. Axial leaded fuses are board washable. 2AG fuses provide the same performance characteristics as their 3AG counterpart, while occupying one-third the space. Sleeved fuses are available.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	1 second, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA. **224** Series approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: 224 and **225 Series** 1/8 through 7 amperes are available to DESC Drawing #87108. To order, change **224** to **289** or **225** to **288**.

INTERRUPTING RATINGS:

0.1–10A	10,000 amperes at 125 VAC
0.1–1A	35 amperes at 250 VAC
1.5–3.5A	100 amperes at 250 VAC

OPTIONS: 224 Series available on tape and reel.

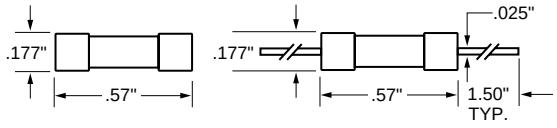
PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 52.4mm (2.062") taped spacing; For 1,500 per reel, 10mm (.40") spacing, add packaging suffix, DRT1. For 2,500 per reel, 5mm (.20") spacing, add packaging suffix, ERT1.

PATENTED

ORDERING INFORMATION:

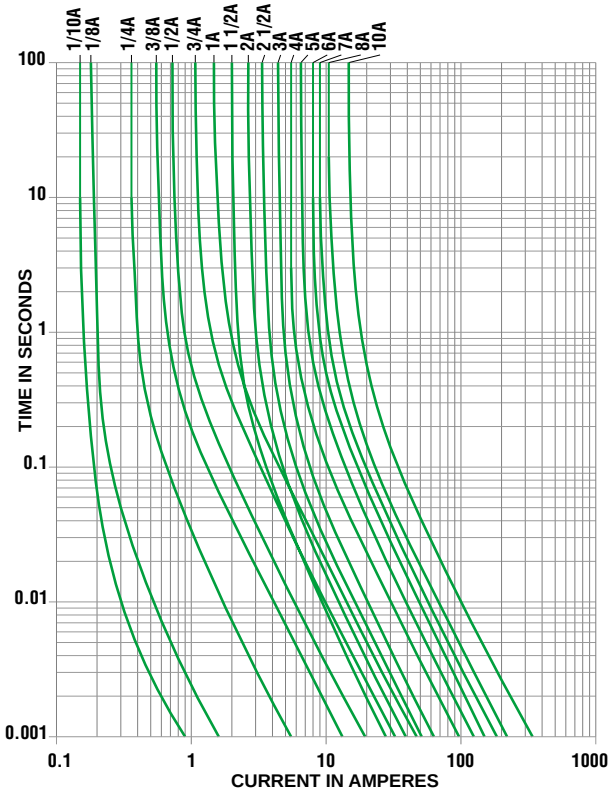
Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
225.100	**224**.100	1/10	250	6.15	0.000750
225.125	**224**.125	1/8	250	3.90	0.00286
225.250	**224**.250	1/4	250	1.15	0.0300
225.375	**224**.375	3/8	250	0.395	0.171
225.500	**224**.500	1/2	250	0.265	0.365
225.750	**224**.750	3/4	250	0.152	1.05
225 001	**224** 001	1	250	0.102	2.22
225 01.5	**224** 01.5	1½	250	0.0705	0.800
225 002	**224** 002	2	250	0.0490	1.50
225 02.5	**224** 02.5	2½	250	0.0365	2.68
225 003	**224** 003	3	250	0.0310	4.62
225 03.5	**224** 03.5	3½	250	0.0258	6.70
225 004	**224** 004	4	125	0.0233	9.40
225 005	**224** 005	5	125	0.0179	17.00
225 006	**224** 006	6	125	0.0147	22.1
225 007	**224** 007	7	125	0.0123	40.0
225 008	**224** 008	8	125	0.0100	56.0
225 010	**224** 010	10	125	0.00675	116.0

225 000 **Series** **224** 000 **Series**



Axial Lead Material: Solder coated copper.

Average Time Current Curves



2AG Special 350V
Fast-Acting Type

The **220 007** subminiature fuse is intended for fluorescent lighting ballast protection or similar applications up to 350V.

AXIAL LEAD PART NUMBER: 220 007 (ampere rating of 3A).

DIMENSIONS: Same as **224 Series**.

ELECTRICAL CHARACTERISTICS: Same as **224 Series.**

INTERRUPTING RATING: 100 amperes at 350 VAC.

PATENTED

Contact Littelfuse concerning other ampere ratings.

SUBMINIATURE GLASS BODY

2AG Slo-Blo® Type Fuse

The 2AG Slo-Blo® fuses are available in cartridge form or with axial leads. Axial leaded fuses are board washable. 2AG fuses provide the same performance characteristics as their 3AG counterpart, while occupying one-third the space. Sleeved fuses are available.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	3 seconds, **Min**imum
	20 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA through 3.5 amperes. Recognized under the Components Program of Underwriters Laboratories from 4 through 7 amperes. **229** 004 and **229** 005 approved by MITI. **230** 001 through **230** 005 approved by MITI.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: 229 and **230 Series** are available to DESC Drawing #87108. To order, change **229** to **290** or **230** to **291**.

INTERRUPTING RATINGS:

0.25–3.5A	10,000 amperes at 125VAC
4–7A	400 amperes at 125VAC
0.25–1A	35 amperes at 250VAC
1.25–3.5A	100 amperes at 250VAC

OPTIONS: 230 Series available on tape and reel.

PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 52.4mm (2.062") taped spacing; For 1,500 per reel, 10mm (.40") spacing, add packaging suffix, DRT1. For 2,500 per reel, 5mm (.20") spacing, add packaging suffix, ERT1.

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature: –55°C to 125°C.

Shock: MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds).

Vibration: MIL-STD-202, Method 201 (10–55 Hz, 0.06 inches total excursion).

Salt Spray: MIL-STD-202 Method 101, Test Condition B (48 hours).

Insulation Resistance (After Opening): MIL-STD-202, Method 302, Test Condition B.

Resistance to Soldering Heat: (Axial Leaded Fuses): MIL-STD-202, Method 210A, Test Condition B (260°C, 3 Seconds).

Thermal Shock: MIL-STD-202, Method 107, Test Condition B (–65°C to 125°C).

Moisture Resistance: MIL-STD-202, Method 106 (90-98% RH, 65°C).

PEAK WITHSTAND CURRENT (Ip): These fuses will withstand 50 repetitions of a double exponential impulse wave having peak currents (Ip) and peak voltages as listed.

PHYSICAL SPECIFICATIONS:

Materials: Glass Body, Nickel-Plated Brass Fuse Caps. (Insulating sleeve option available).

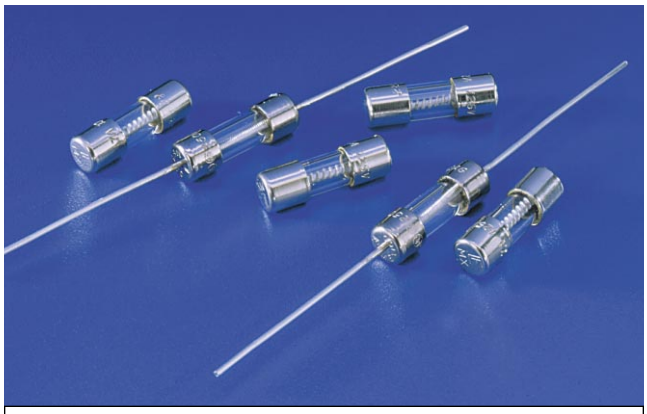
Soldering parameters:

Wave solder — 500°F (260°C), 3 seconds Max.
Reflow solder — Not recommended.

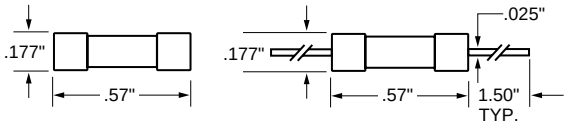
Solderability: (Axial Leaded Fuses): MIL-STD-202, Method 208.

PACKAGING SPECIFICATIONS: Tape and Reel per EIA-296; T1: 52.4mm (2.062") taped spacing; For 1,500 per reel, 10mm (.40") spacing, add packaging suffix, DRT1. For 2,500 per reel, 5mm (.20") spacing, add packaging suffix, ERT1. Insulating sleeve option available.

NOTE: LF logo, series number, amperage rating, voltage rating, and UL and CSA logos are stamped on the fuse caps.



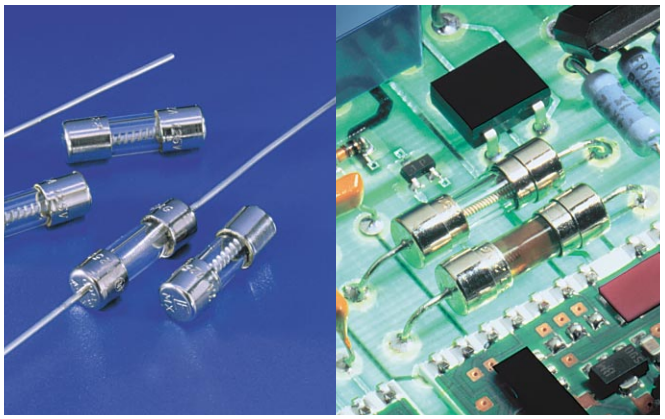
229 000 **Series** **230** 000 **Series**



Axial Lead Material: Solder coated copper.

2AG Indicating Slo-Blo® Type Fuse

The 2AG Indicating Slo-Blo® fuse instantly identifies itself upon opening by showing a discoloration of its glass body. Guesswork and time consuming circuit testing are eliminated. This unique design offers the same quality performance characteristics as the standard 2AG fuse design.



* When ordering the 2AG Indicating Slo-Blo Type Fuse, an 'S' is required after the catalog number.

Example:
-1A Indicating Slo-Blo® = 230 001S

SUBMINIATURE GLASS BODY

2AG Slo-Blo® Type

PATENTED
ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
229.250	**230**.250	1/4	250	2.41	0.216
229.350	**230**.350	.350	250	1.30	0.490
229.375	**230**.375	3/8	250		0.580
229.500	**230**.500	1/2	250	0.688	1.16
229.600	**230**.600	6/10	250	0.477	1.75
229.750	**230**.750	3/4	250	0.340	2.95
229.800	**230**.800	8/10	250	0.304	3.45
229 001	**230** 001	1	250		5.64
229 1.25	**230** 1.25	1 1/4	250	0.145	9.80
229 01.5	**230** 01.5	1 1/2	250	0.107	15.0
229 002	**230** 002	2	250	0.0692	30.0
229 2.25	**230** 2.25	2 1/4	250	0.0562	39.0
229 02.5	**230** 02.5	2 1/2	250	0.0498	50.0
229 003	**230** 003	3	250	0.0380	77.0
229 03.5	**230** 03.5	3 1/2	250	0.0310	110.0
229 004	**230** 004	4	125	0.0256	148.0
229 005	**230** 005	5	125	0.0185	267.0
229 006	**230** 006	6	125	0.0140	380.0
229 007	**230** 007	7	125	0.0115	464.0

2AG Surge Withstand Specifications

2AG Surge Withstand Fuse combines conventional over-current protection with the ability to withstand high current, short duration pulses. These fuses comply with the short circuit requirements of UL 1459 for telephone equipment. Insulating Sleeve Option available.

ELECTRICAL CHARACTERISTICS:

Short Circuit Capabilities:

UL 1459 / UL 1950 3rd Edt.: 40A, 600VAC
7A, 600VAC
2.2A, 600VAC

• Meets UL 497 Specifications

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	3 seconds, **Min**imum; 20 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA.

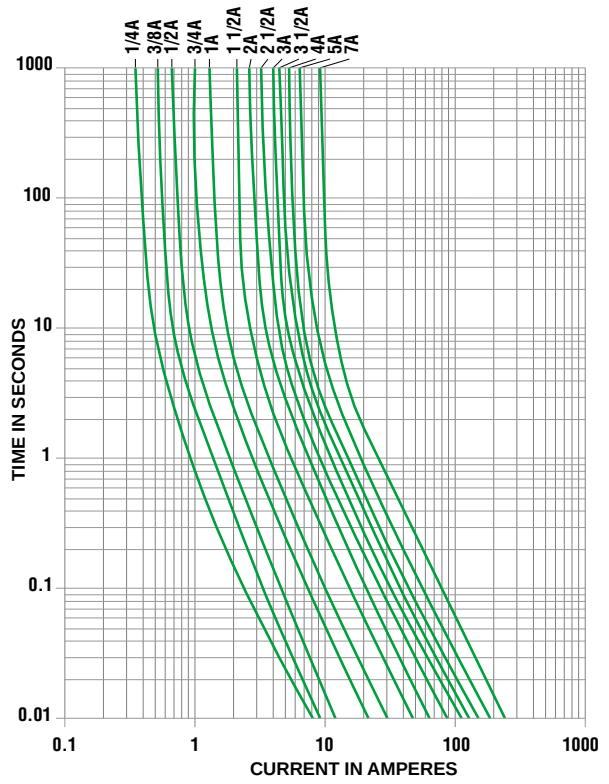
AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATINGS:
1/4–1 1/4A 10,000 amperes at 125VAC
1/4–1A 35 amperes at 250VAC
1 1/4A 100 amperes at 250VAC

Amperage Rating	10 x 160 microsec. 1500V	10 x 560 microsec. 800V	10 x 1000 microsec. 1000V
1/4	23.0A	16.6A	12.4A
35/100	34.0A	25.8A	19.3A
3/8	40.0A	25.4A	19.0A
1/2	60.0A	37.7A	28.2A
6/10	71.0A	47.2A	35.3A
3/4	91.0A	65.5A	49.0A
8/10	104.0A	68.9A	51.6A
1	130.0A	88.6A	66.3A
1 1/4[1]	162.0A	118.1A	100.0A

[1] 500A peak, 2500V, 2 x 10 microseconds, 20 repetitions.

Average Time Current Curves



2AG Special Surge Withstand
Slo-Blo® Type

AXIAL LEAD PART NUMBER: 220 003 (0.35A)
ELECTRICAL CHARACTERISTICS:

Amperes	Opening Time
0.35A	4 hours, **Min**imum
0.6A	90 seconds, **Max**imum
2.0A	2 seconds, **Max**imum
6.0A	0.5 second, **Max**imum

INTERRUPTING RATINGS: Same as **230 Series.**
LIGHTNING SURGE WITHSTAND CAPABILITY: 25 amperes peak, 800V, 10 x 560 microseconds.
PATENTED

GLASS BODY

3AG Fast-Acting Type

QPL

A standard for cost-effective reliability and performance in circuit protection, the 3AG fuse satisfies a broad range of application requirements.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/32–35	4 hours, **Min**imum
135%	1/32–35	1 hour, **Max**imum
200%	1/32–10	5 sec., **Max**imum
	12–30	10 sec., **Max**imum
	35	20 sec., **Max**imum

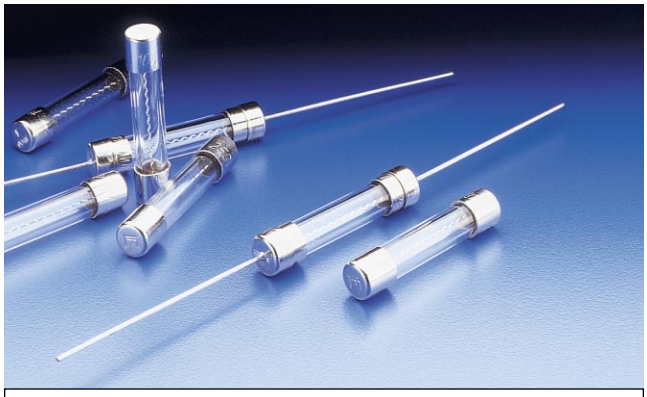
AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA through 30 amperes. 1/100–10 amperes listed to UL 248-14 (UL 198-G) 12–30 amperes listed to UL 275.

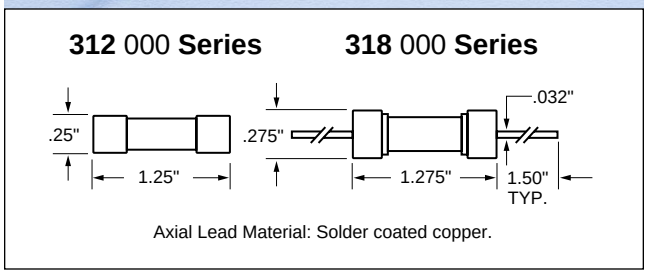
AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: See F02A cartridge type in Military Section.

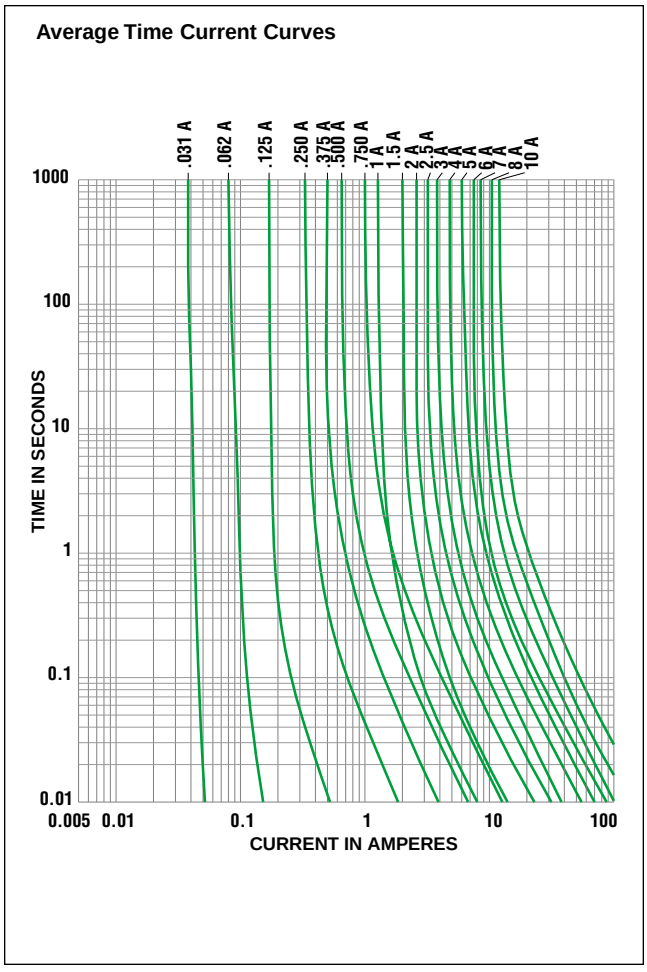
ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
312.031	**318**.031	1/32	250	23.3	0.0000300
312.062	**318**.062	1/16	250	24.5	0.000249
312.100	**318**.100	1/10	250	11.2	0.00102
312.125	**318**.125	1/8	250	7.10	0.00289
312.150	**318**.150	15/100	250	5.10	0.00550
312.175	**318**.175	.175	250	3.85	0.00960
312.187	**318**.187	3/16	250	3.40	0.0128
312.200	**318**.200	2/10	250	3.00	0.0165
312.250	**318**.250	1/4	250	2.00	0.0355
312.300	**318**.300	3/10	250	1.40	0.0689
312.375	**318**.375	3/8	250	0.820	0.185
312.500	**318**.500	1/2	250	0.495	0.483
312.600	**318**.600	6/10	250	0.360	0.880
312.750	**318**.750	3/4	250	0.243	1.84
312 001	**318** 001	1	250	0.189	0.760
312 1.25	**318** 1.25	1 1/4	250	0.138	1.45
312 01.5	**318** 01.5	1 1/2	250	0.103	2.35
312 01.6	**318** 01.6	1 6/10	250	0.0930	2.80
312 1.75	**318** 1.75	1 3/4	250	0.0850	3.60
312 01.8	**318** 01.8	1 8/10	250	0.0820	3.85
312 002	**318** 002	2	250	0.0700	5.20
312 2.25	**318** 2.25	2 1/4	250	0.0590	7.20
312 02.5	**318** 02.5	2 1/2	250	0.0510	9.54
312 003	**318** 003	3	250	0.0424	14.0
312 004	**318** 004	4	250	0.0291	28.5
312 005	**318** 005	5	250	0.0223	50.0
312 006	**318** 006	6	250	0.0177	81.1
312 007	**318** 007	7	250	0.0145	118.0
312 008	**318** 008	8	250	0.0121	166.0
312 010	**318** 010	10	250	0.00925	298.0
312 012	—	12	32	0.0071	—
312 015	—	15	32	0.0052	—
312 020	—	20	32	0.0034	—
312 025	—	25	32	0.0024	—
312 030	—	30	32	0.0019	—
312 035	—	35	32	0.0013	—





Axial Lead Material: Solder coated copper.



GLASS BODY

3AG Slo-Blo® Type Fuse

A standard for cost-effective reliability and performance in circuit protection, the 3AG fuse satisfies a broad range of application requirements.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	5 seconds, **Min**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA through 8 amperes. **313** 000 Series approved by MITI from 1 through 5 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: See F02B cartridge type in Military Section.

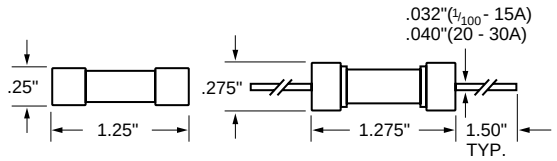
PATENTED

ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
313.010	**315**.010	1/100	250	3300	0.000121
313.031	**315**.031	1/32	250	330	0.00303
313.040	**315**.040	4/100	250	220	0.00630
313.062	**315**.062	1/16	250	91.0	0.0210
313.100	**315**.100	1/10	250	33.3	0.0850
313.125	**315**.125	1/8	250	22.3	0.152
313.150	**315**.150	15/100	250	15.3	0.270
313.175	**315**.175	.175	250	8.60	0.177
313.187	**315**.187	3/16	250	7.95	0.230
313.200	**315**.200	2/10	250	6.54	0.270
313.250	**315**.250	1/4	250	4.27	0.385
313.300	**315**.300	3/10	250	3.11	0.730
313.375	**315**.375	3/8	250	2.08	1.23
313.400	**315**.400	4/10	250	1.86	1.35
313.500*	**315**.500	1/2	250	1.25	2.55
313.600	**315**.600	6/10	250	0.914	4.00
313.700	**315**.700	7/10	250	0.695	5.90
313.750	**315**.750	3/4	250	0.617	7.16
313.800	**315**.800	8/10	250	0.550	8.00
313 001*	**315** 001	1	250	0.375	14.0
313 01.2	**315** 01.2	$1^2/_{10}$	250	0.276	21.5
313 1.25	**315** 1.25	$1^1/_4$	250	0.258	24.0
313 01.5*	**315** 01.5	$1^1/_2$	250	0.190	38.0
313 01.6	**315** 01.6	$1^6/_{10}$	250	0.170	49.6
313 01.8	**315** 01.8	$1^8/_{10}$	250	0.140	58.0
313 002*	**315** 002	2	250	0.116	77.0
313 2.25	**315** 2.25	$2^1/_4$	250	0.0960	121.0
313 02.5	**315** 02.5	$2^1/_2$	250	0.0805	130.0
313 02.8	**315** 02.8	$2^8/_{10}$	250	0.0670	170.0
313 003*	**315** 003	3	250	0.0588	200.0
313 03.2	**315** 03.2	$3^2/_{10}$	250	0.0525	209.0
313 004*	**315** 004	4	250	0.0308	76.1
313 005*	**315** 005	5	250	0.0212	140.0
313 6.25*	**315** 6.25	$6^1/_4$	250	0.0152	242.0
313 6.30	**315** 6.30	6.30	250	0.0152	242.0
313 007*	**315** 007	7	250	0.0127	347.0
313 008*	**315** 008	8	250	0.0110	445.0
313 010*	**315** 010	10	32	0.00820	760.0
313 012	**315** 012	12	32	0.00640	1200.0
313 015	**315** 015	15	32	0.00500	1870.0
313 020	**315** 020	20	32	0.00220	9560.0
313 025	**315** 025	25	32	0.00170	16500.0
313 030	**315** 030	30	32	0.00120	26900.0

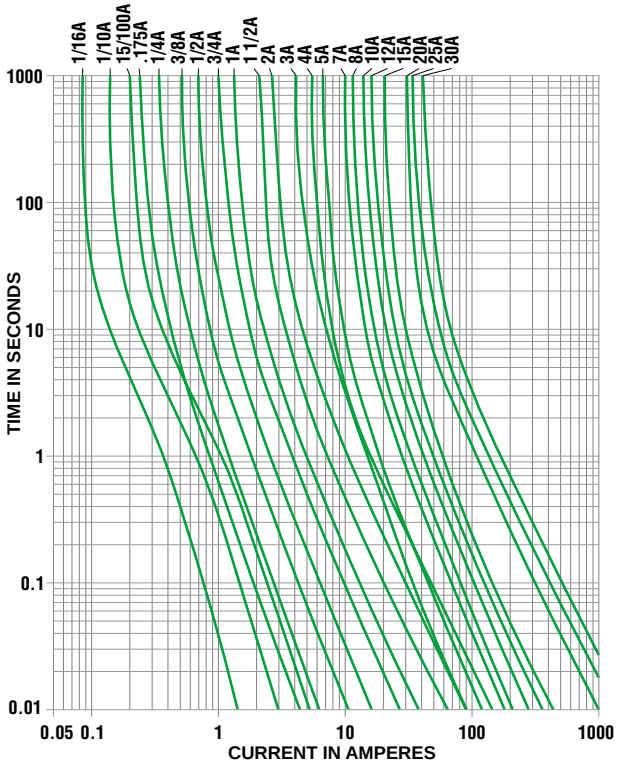
*These ratings available with an indicating option. Add the 'ID' designation to the series number. i.e. 313.500 ID.

313 000 **Series** **315** 000 **Series**



Axial Lead Material: Solder coated copper.

Average Time Current Curves



CERAMIC BODY

3AB Fast-Acting Type

Ceramic body construction permits higher interrupting ratings and voltage ratings. Ideal for applications where high current loads are expected.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/8–30	4 hours, **Min**imum
135%	1/8–30	1 hour, **Max**imum
200%	1/8–12	15 seconds, **Max**imum
	15–30	30 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA through 15 amperes at 250 VAC/125 VDC. Recognized under the Components Program of Underwriters Laboratories from 20 through 30 amperes, 20 amperes at 250 VAC/125 VDC, 25 through 30 amperes at 125 VAC/VDC. Approved by MITI from 10 through 30 amperes.

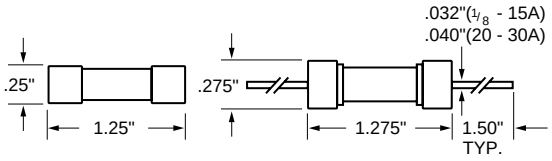
AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

FUSES TO MIL SPEC: See F03A cartridge type in Military Section.

ORDERING INFORMATION:

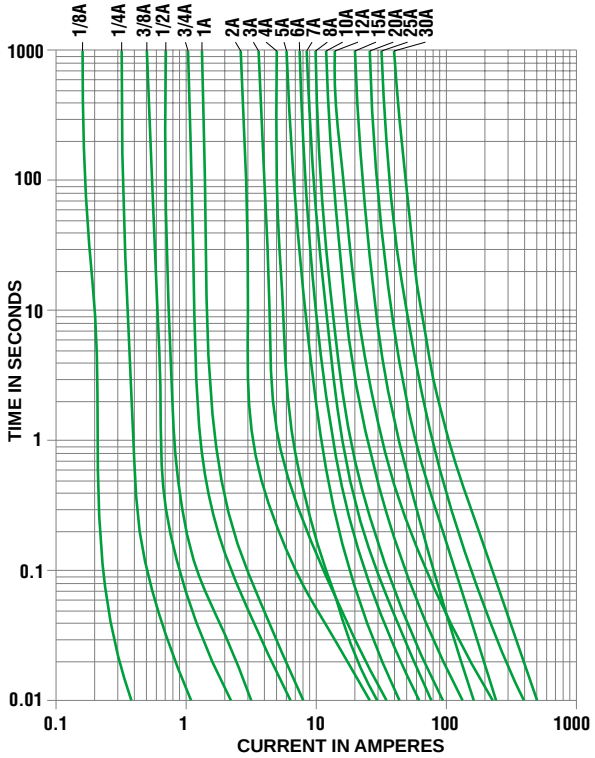
Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
314.125	**324**.125	1/8	250	6.20	0.00149
314.250	**324**.250	1/4	250	1.95	0.0140
314.375	**324**.375	3/8	250	0.820	0.050
314.500	**324**.500	1/2	250	0.500	0.115
314.750	**324**.750	3/4	250	0.250	0.466
314 001	**324** 001	1	250	0.189	0.690
314 002	**324** 002	2	250	0.0700	11.0
314 003	**324** 003	3	250	0.0432	14.6
314 004	**324** 004	4	250	0.0470	10.4
314 005	**324** 005	5	250	0.0300	26.0
314 006	**324** 006	6	250	0.0240	45.0
314 007	**324** 007	7	250	0.0187	71.0
314 008	**324** 008	8	250	0.0153	105.0
314 010	**324** 010	10	250	0.0105	206.0
314 012	**324** 012	12	250	0.00760	570.0
314 015	**324** 015	15	250	0.00505	292.0
314 020	**324** 020	20	250	0.00355	631.0
314 025	**324** 025	25	125	0.00235	1450.0
314 030	**324** 030	30	125	0.00182	2490.0

314 000 **Series** **324** 000 **Series**



Axial Lead Material: Solder coated copper.

Average Time Current Curves



CERAMIC BODY

3AB Slo-Blo® Type Fuse

Ceramic body construction permits higher interrupting ratings and voltage ratings. Ideal for applications where high current loads are expected.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/100–30	4 hours, **Min**imum
135%	1/100–30	1 hour, **Max**imum
200%	1/100–3.2	5 sec., **Min.**; 30 sec. **Max.**
	4–30	5 sec., **Min.**; 60 sec. **Max.**

AGENCY APPROVALS: Listed by Underwriters Laboratories from 1/4 through 10 amperes. Certified by CSA from 1/4 through 30 amperes.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

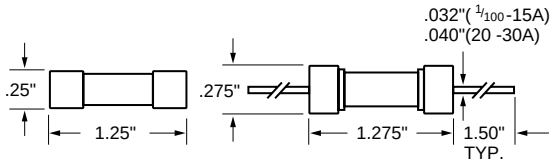
FUSES TO MIL SPEC: See F03B cartridge type in Military Section.

PATENTED

ORDERING INFORMATION:

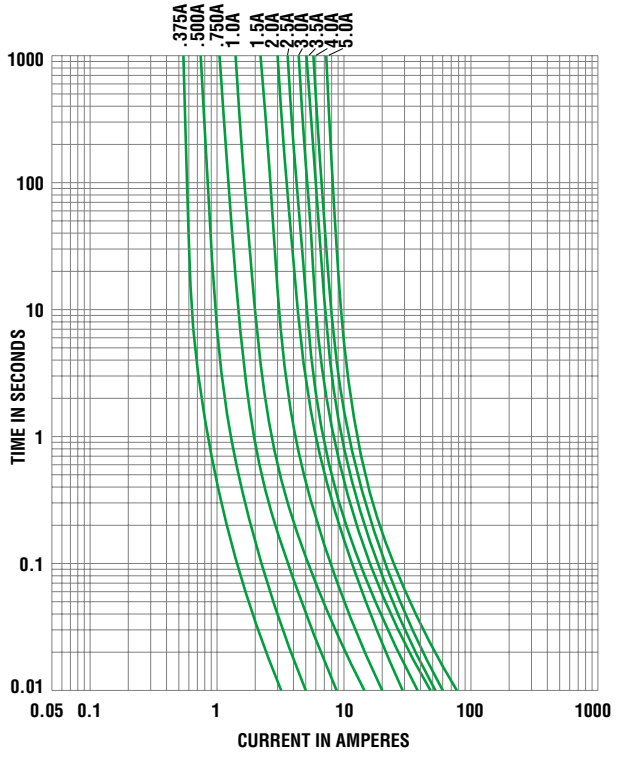
Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
326.010	**325**.010	1/100	250	3300	0.00148
326.031	**325**.031	1/32	250	330	0.0110
326.062	**325**.062	1/16	250	91.0	0.0276
326.100	**325**.100	1/10	250	33.3	0.0870
326.125	**325**.125	1/8	250	22.3	0.100
326.150	**325**.150	15/100	250	15.3	0.143
326.175	**325**.175	.175	250	8.84	0.220
326.187	**325**.187	3/16	250	7.67	0.230
326.200	**325**.200	2/10	250	6.72	0.213
326.250	**325**.250	1/4	250	4.40	0.432
326.300	**325**.300	3/10	250	3.20	0.690
326.375	**325**.375	3/8	250	2.14	1.20
326.400	**325**.400	4/10	250	1.92	1.33
326.500	**325**.500	1/2	250	1.29	2.50
326.600	**325**.600	6/10	250	0.940	3.90
326.700	**325**.700	7/10	250	0.716	6.42
326.750	**325**.750	3/4	250	0.636	7.00
326.800	**325**.800	8/10	250	0.568	8.20
326 001	**325** 001	1	250	0.386	16.3
326 01.2	**325** 01.2	$1^2/_{10}$	250	0.284	22.0
326 1.25	**325** 1.25	$1^1/_4$	250	0.266	24.0
326 01.5	**325** 01.5	$1^1/_2$	250	0.196	40.1
326 01.6	**325** 01.6	$1^6/_{10}$	250	0.175	45.0
326 002	**325** 002	2	250	0.120	80.0
326 02.5	**325** 02.5	$2^1/_2$	250	0.0830	136.0
326 02.8	**325** 02.8	$2^8/_{10}$	250	0.0690	170.0
326 003	**325** 003	3	250	0.0600	200.0
326 03.2	**325** 03.2	$3^2/_{10}$	250	0.0535	214.0
326 004	**325** 004	4	250	0.0755	9.71
326 005	**325** 005	5	250	0.0518	25.0
326 6.25	**325** 6.25	$6^1/_4$	250	0.0343	60.4
326 007	**325** 007	7	250	0.0225	47.3
326 008	**325** 008	8	250	0.0191	67.1
326 010	**325** 010	10	250	0.0131	137.0
326 012	**325** 012	12	250	0.0066	129.0
326 015	**325** 015	15	250	0.0049	245.0
326 020	**325** 020	20	250	0.0033	575.0
326 025	**325** 025	25	125	0.0024	1030.0
326 030	**325** 030	30	125	0.0019	1690.0

326 000 **Series** **325** 000 **Series**



Axial Lead Material: Solder coated copper.

Average Time Current Curves

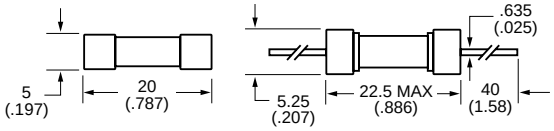


DESIGNED TO IEC STANDARD

5 x 20 mm Fast-Acting Type

- Designed to International (IEC) Standards for use globally.
- Meets the IEC 60127-2, Sheet 2 specification for Fast-Acting Fuses.
- Available in Cartridge and Axial Lead Form.
- Available in ratings of 0.032 to 10 amperes.

217 000 **Series** **217** 000 **XE**
227 000 **Series**[1]



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
150%	.032–.100	60 minutes, **Min**imum
	.125–6.3	60 minutes, **Min**imum
210%	.032–.100	30 minutes, **Max**imum
	.125–6.3	30 minutes, **Max**imum
275%	.032–.100	0.01 sec., **Min.**; .5 sec. **Max.**
	.125–6.3	0.05 sec., **Min.**; 2 sec. **Max.**
400%	.032–.100	.003 sec., **Min.**; 0.1 sec. **Max.**
	.125–6.3	.01 sec., **Min.**; 0.3 sec. **Max.**
1000%	.032–.100	.02 second, **Max**imum
	.125–6.3	.02 second, **Max**imum

AGENCY APPROVALS: Sheet I IEC 60127-2:* SEMKO, VDE approved thru 6.3 amps. BSI approved 0.4-6.3 amps. Recognized under the Components Program of Underwriters Laboratories and recognized by CSA. UL recognized to 6.3A only.

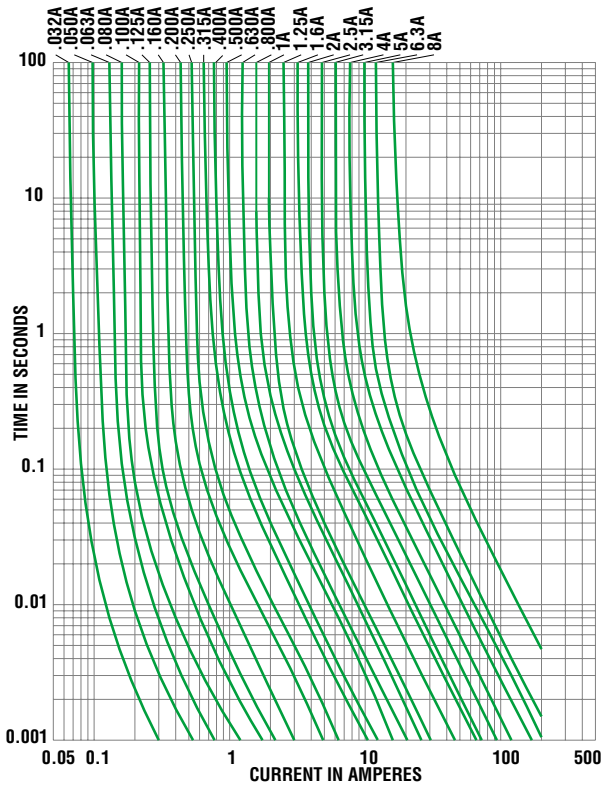
INTERRUPTING RATING: 35 amperes or 10 x rated current; whichever is greater.

ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
217.032	**227**.032	.032	250	262.2	0.000048
217.040	**227**.040	.040	250	183.2	0.000074
217.050	**227**.050	.050	250	15.20	0.00020
217.063	**227**.063	.063	250	10.43	0.00057
217.080	**227**.080	.080	250	7.88	0.00085
217.100	**227**.100	.100	250	5.10	0.0034
217.125	**227**.125	.125	250	3.68	0.0049
217.160	**227**.160	.160	250	2.53	0.011
217.200	**227**.200	.200	250	1.65	0.025
217.250	**227**.250	.250	250	1.18	0.043
217.315	**227**.315	.315	250	0.810	0.110
217.400	**227**.400	.400	250	0.277	0.130
217.500	**227**.500	.500	250	0.210	0.225
217.630	**227**.630	.630	250	0.168	0.420
217.800	**227**.800	.800	250	0.134	0.870
217 001	**227** 001	1	250	0.096	1.07
217 1.25	**227** 1.25	1.25	250	0.070	2.29
217 01.6	**227** 01.6	1.6	250	0.046	4.74
217 002	**227** 002	2	250	0.040	5.88
217 02.5	**227** 02.5	2.5	250	0.033	9.72
217 3.15	**227** 3.15	3.15	250	0.022	18.2
217 004	**227** 004	4	250	0.016	30.0
217 005	**227** 005	5	250	0.013	43.9
217 06.3	**227** 06.3	6.3	250	0.0098	64.2
217 008	**227** 008	8*	250	0.0068	203.5
217 010	**227** 010	10*	250	0.0060	223.5

*IEC Standards for 5 x 20mm fuses do not include ratings above 6.3 amperes, but are under consideration.

Average Time Current Curves



[1] 227 Series is used for North American ordering.

DESIGNED TO IEC STANDARD

5 x 20 mm Time Lag Fuse (Slo-Blo® Type Fuse)

- Designed to International (IEC) Standards for use globally.
- Meets the IEC 60127-2, Sheet 3 specification for Time Lag Fuses.
- Available in Cartridge and Axial Lead Form.
- Available in ratings of 0.032 to 10 amperes.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
150%	.032–.100	60 minutes, **Min**imum
	.125–6.3	60 minutes, **Min**imum
210%	.032–.100	2 minutes, **Max**imum
	.125–6.3	2 minutes, **Max**imum
275%	.032–.100	0.2 sec., **Min.**; 10 sec. **Max.**
	.125–6.3	0.6 sec., **Min.**; 10 sec. **Max.**
400%	.032–.100	.04 sec., **Min.**; 3 sec. **Max.**
	.125–6.3	.15 sec., **Min.**; 3 sec. **Max.**
1000%	.032–.100	.01 sec., **Min.**; 0.3 sec. **Max.**
	.125–6.3	0.02 sec., **Min.**; 0.3 sec. **Max.**

AGENCY APPROVALS: Sheet III IEC 60127-2:* SEMKO, VDE approved thru 6.3 amps. BSI approved 0.08-6.3 amps. Recognized under the Components Program of Underwriters Laboratories and recognized by CSA. 0213 series MITI approved 1-5A.

VOLTAGE RATING: 250 VAC

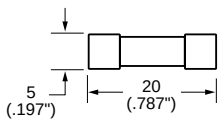
INTERRUPTING RATINGS: 35 amperes or 10 x rated current; whichever is greater.

ORDERING INFORMATION:
For axial leaded change 218 to 228 and 213 to 223.

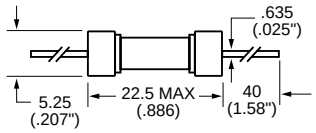
	218/228			213/223 Surge Withstand		
Ampere Rating	Cartridge Catalog Number	Nominal Resistance Cold Ohmns	Nominal Melting I^2t $A^2Sec.$	Cartridge Catalog Number	Nominal Resistance Cold Ohms	Nominal Melting I^2t $A^2Sec.$
.032	**218**.032	58.45	0.00305	–	–	–
.040	**218**.040	35.70	0.0055	–	–	–
.050	**218**.050	23.30	0.0071	–	–	–
.063	**218**.063	18.1	0.012	–	–	–
.080	**218**.080	12.6	0.0265	–	–	–
.100	**218**.100	8.95	0.0495	–	–	–
.125	**218**.125	4.41	0.150	–	–	–
.160	**218**.160	2.44	0.225	–	–	–
.200	**218**.200	1.60	0.350	**0213**.200	1.60	0.350
.250	**218**.250	1.05	0.555	**0213**.250	1.05	0.555
.315	**218**.315	0.848	1.14	**0213**.315	0.848	1.14
.400	**218**.400	0.535	1.35	**0213**.400	0.535	1.35
.500	**218**.500	0.370	2.90	**0213**.500	0.370	2.90
.630	**218**.630	0.275	4.80	**0213**.630	0.275	4.80
.800	**218**.800	0.073	1.99	**0213**.800	0.165	9.42
1	**218** 001	0.055	3.33	**0213** 001.	0.117	19.20
1.25	**218** 1.25	0.042	5.80	**0213** 1.25	0.081	27.15
1.6	**218** 01.6	0.032	10.61	**0213** 01.6	0.055	44.2
2	**218** 002	0.029	14.80	**0213** 002.	0.044	92.7
2.5	**218** 02.5	0.022	23.85	**0213** 02.5	0.030	138.0
3.15	**218** 3.15	0.017	39.20	**0213** 3.15	0.022	226.5
4	**218** 004	0.013	70.95	**0213** 004.	0.017	202
5	**218** 005	0.010	114.0	**0213** 005.	0.011	314
6.3	**218** 06.3	0.0075	204.0	**0213** 06.3	0.08	600
8	**218** 008	0.0059	350.5	–	–	–
10	**218** 010	0.0045	583.0	–	–	–
15	**218** 015	0.0030	1441.0			

* IEC Standards for 5 x 20 fuses do not include ratings above 6.3A, but are under consideration.

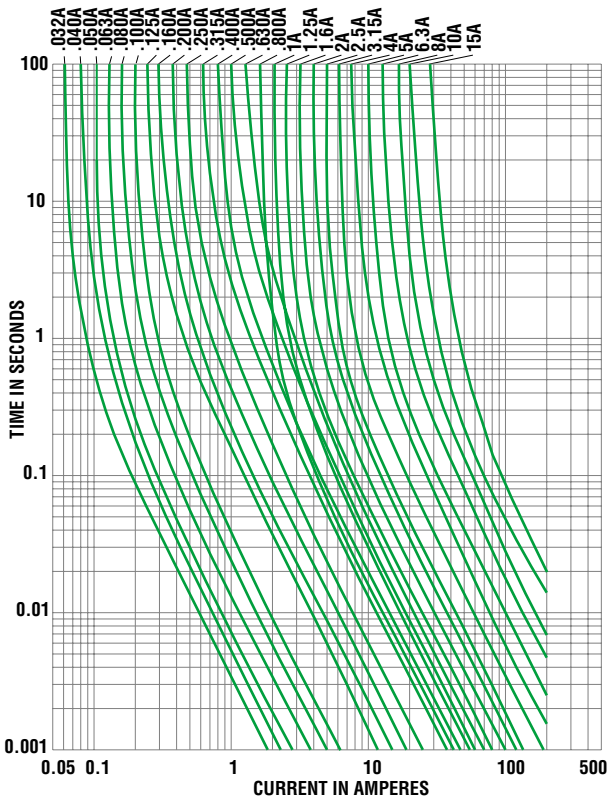
218 000 **XE**
228 000 [1]



213 000 **XE**
223 000 [1]



Average Time Current Curves for 218/228



Please contact Littelfuse for Average Time Current Curve for 213/223 surge withstand.

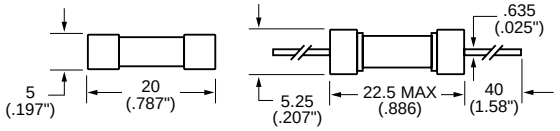
[1] 228 and 223 Series are used for North American ordering.

DESIGNED TO IEC STANDARD

5 x 20 mm Fast-Acting Type

- Designed to International (IEC) Standards for use globally.
- Meets the IEC 60127-2, Sheet 1 specification for Fast Acting Fuses.
- Available in Cartridge and Axial Lead Form.
- Available in ratings of 0.050 to 10 amperes.
- High breaking capacity.

216 000 **Series** **216** 000 **XE**
226 000 **Series** [1]



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
150%	.05–3.15	60 minutes, **Min**imum
	4–6.3	60 minutes, **Min**imum
210%	.05–3.15	30 minutes, **Max**imum
	4–6.3	30 minutes, **Max**imum
275%	.05–3.15	0.01 sec., **Min.**; 2 sec. **Max.**
	4–6.3	0.01 sec., **Min.**; 3 sec. **Max.**
400%	.05–3.15	.003 sec., **Min.**; 0.3 sec. **Max.**
	4–6.3	.003 sec., **Min.**; 0.3 sec. **Max.**
1000%	.05–3.15	.02 seconds, **Max**imum
	4–6.3	.02 seconds, **Max**imum

AGENCY APPROVALS: Sheet I IEC 60127-2:* SEMKO approved thru 6.3 amps. Recognized under the Components Program of Underwriters Laboratories and recognized by CSA. BSI approved 1A to 6.3A. VDE approved .05-6.3.

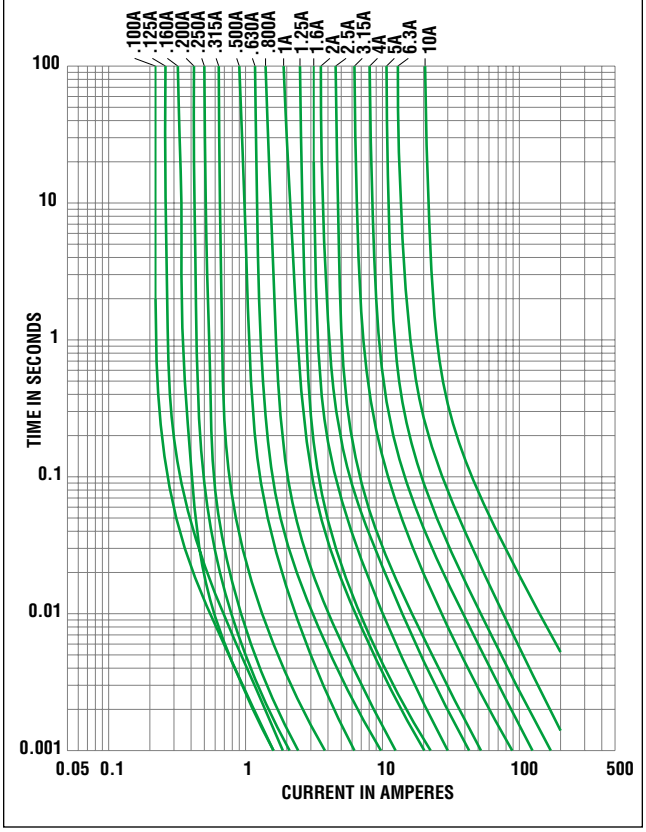
INTERRUPTING RATING: 1500 amperes.

ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
216.050	**226**.050	.050	250	15.90	0.00019
216.063	**226**.063	.063	250	10.45	0.00055
216.080	**226**.080	.080	250	7.89	0.00086
216.100	**226**.100	.100	250	5.42	0.0033
216.125	**226**.125	.125	250	3.68	0.0056
216.160	**226**.160	.160	250	5.20	0.0018
216.200	**226**.200	.200	250	3.35	0.0045
216.250	**226**.250	.250	250	2.35	0.0092
216.315	**226**.315	.315	250	1.85	0.015
216.400	**226**.400	.400	250	1.67	0.028
216.500	**226**.500	.500	250	1.20	0.045
216.630	**226**.630	.630	250	0.790	0.097
216.800	**226**.800	.800	250	0.588	0.18
216 001	**226** 001	1	250	0.228	0.19
216 1.25	**226** 1.25	1.25	250	0.153	0.49
216 01.6	**226** 01.6	1.6	250	0.108	1.04
216 002	**226** 002	2	250	0.0770	1.92
216 02.5	**226** 02.5	2.5	250	0.0575	2.77
216 3.15	**226** 3.15	3.15	250	0.0333	7.85
216 004	**226** 004	4	250	0.0243	15.4
216 005	**226** 005	5	250	0.0168	28.2
216 06.3	**226** 06.3	6.3	250	0.0125	57.9
216 008	**226** 008	8*	250	0.0120	66.1
216 010	**226** 010	10*	250	0.00775	158.5

*IEC Standards for 5 x 20mm fuses do not include ratings above 6.3 amperes, but are under consideration.

Average Time Current Curves

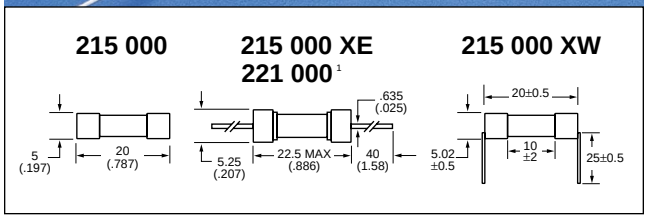


[1] 226 Series is used for North American ordering.

DESIGNED TO IEC STANDARD

5 x 20 mm Time Lag Fuse (Slo-Blo® Type Fuse)

- Designed to International (IEC) Standards for use globally.
- Meets the IEC 60127-2, Sheet 5 specification for Time Lag Fuses.
- Available in Cartridge and Axial Lead Form.
- Available in ratings of .2 to 10 amperes.
- High breaking capacity.



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
150%	1–3.15	60 minutes, **Min**imum
	4–6.3	60 minutes, **Min**imum
210%	1–3.15	30 minutes, **Max**imum
	4–6.3	30 minutes, **Max**imum
275%	1–3.15	1 sec., **Min.**; 80 sec. **Max.**
	4–6.3	1 sec., **Min.**; 80 sec. **Max.**
400%	1–3.15	.095 sec., **Min.**; 5 sec. **Max.**
	4–6.3	.150 sec., **Min.**; 5 sec. **Max.**
1000%	.2–.4	.010 sec., **Min.**; .15 sec., **Max.**
	.5–3.15	.010 sec., **Min.**; .1 sec., **Max.**
	4–6.3	.020 sec., **Min.**; .1 sec. **Max.**

AGENCY APPROVALS: Sheet V IEC 60127-2:* SEMKO approved 1A-6.3A. BSI and VDE approved 1.0-6.3 amps. MITI approved 1-10A. Recognized under the Components Program of Underwriters Laboratories and recognized by CSA.

INTERRUPTING RATING: 1500 amperes.

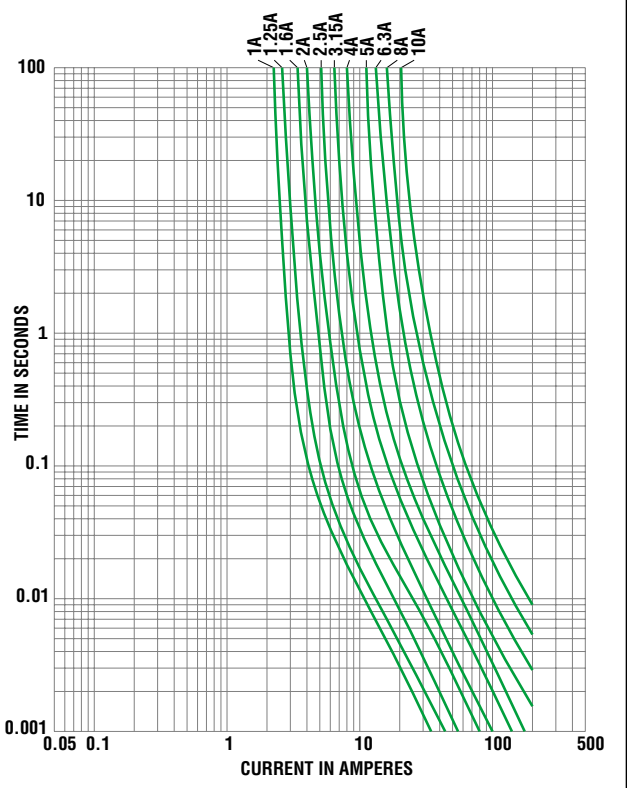
ORDERING INFORMATION:

Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
215.200	**221**.200	.200*	250	1.750	0.37
215.250	**221**.250	.250*	250	1.170	0.56
215.315	**221**.315	.315*	250	0.873	1.08
215.400	**221**.400	.400*	250	0.560	1.45
215.500	**221**.500	.500*	250	1.080	0.34
215.630	**221**.630	.630*	250	0.660	0.56
215.800	**221**.800	.800*	250	0.436	0.954
215 001	**221** 001	1	250	0.110	1.05
215 1.25	**221** 1.25	1.25	250	0.085	2.05
215 01.6	**221** 01.6	1.6	250	0.0588	3.90
215 002	**221** 002	2	250	0.043	6.95
215 02.5	**221** 02.5	2.5	250	0.0312	10.65
215 3.15	**221** 3.15	3.15	250	0.0220	21.2
215 004	**221** 004	4	250	0.0163	38.7
215 005	**221** 005	5	250	0.0125	82.85
215 06.3	**221** 06.3	6.3	250	0.0099	132.5
215 008	**221** 008	8*	250	0.0078	209.5
215 010	**221** 010	10*	250	0.0060	360.5

*IEC Standards for 5 x 20mm fuses do not include ratings above 6.3 amperes, but are under consideration.

IEC 60127-2, Sheet 5 does not include ratings below 1 ampere (under consideration by IEC).

Average Time Current Curves



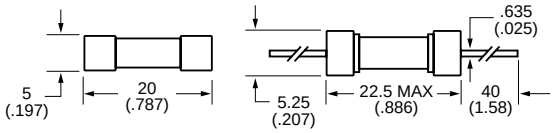
[1] 221 Series is used for North American ordering.

DESIGNED TO IEC STANDARD

5 x 20 mm Time Lag Fuse (Slo-Blo® Type Fuse)

- Designed to International (IEC) Standards for use globally.
- Meets the IEC 60127-2, Sheet 6 specification for Time Lag Fuses.
- Available in Cartridge and Axial Lead Format.
- Available in ratings of 0.125 to 6.3 amperes.
- Enhanced Breaking Capacity

219 000 **Series** **219** 000 **XE**



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
150%	60 minutes, **Min**imum
210%	2 minutes, **Max**imum
275%	0.6 sec., **Min.**; 10 sec. **Max**
400%	.15 sec., **Min.**; 3 sec. **Max**
1000%	0.02 sec., **Min.**; 0.3 sec. **Max**.

AGENCY APPROVALS: Sheet 6 IEC 60127: SEMKO, BSI and VDE approved. Recognized 1A to 6.3A under the components program of Underwriters Laboratories and recognized by CSA. MITI A 1A to 6.3A.

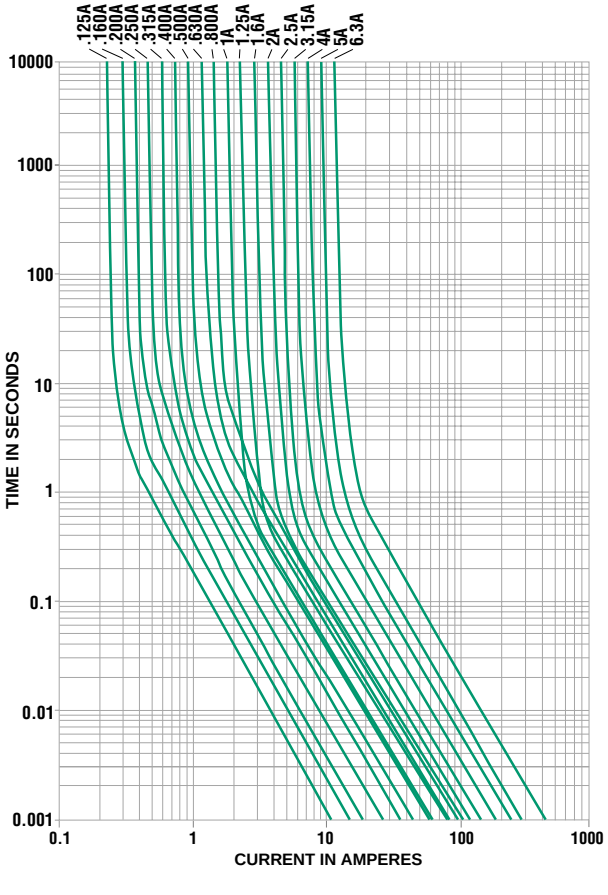
INTERRUPTING RATINGS: 150 amperes

PACKAGING: For Axial Leads add packaging suffix XE.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Nominal Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
0219.125	.125	250	4.41	0.150
0219.160	.160	250	2.44	0.225
0219.200	.200	250	1.60	0.350
0219.250	.250	250	1.05	0.555
0219.315	.315	250	0.848	1.14
0219.400	.400	250	0.535	1.35
0219.500	.500	250	0.370	2.90
0219.630	.630	250	0.275	4.80
0219.800	.800	250	0.163	9.42
0219 001.	1	250	0.055	3.33
0219 1.25	1.25	250	0.042	5.80
0219 01.6	1.6	250	0.032	10.61
0219 002.	2	250	0.029	14.80
0219 02.5	2.5	250	0.022	23.85
0219 3.15	3.15	250	0.017	39.20
0219 004.	4	250	0.013	70.95
0219 005.	5	250	0.010	114.0
0219 06.3	6.3	250	0.0075	204.0

Average Time Current Curves



DESIGNED TO MITI STANDARD

5 x 20 mm Medium Acting Fuse

- Designed to Japanese Standard JIS C6575.
- Available in Cartridge, Axial and Radial Lead Format.
- Available in ratings of 1A to 10A.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
130%	1 hour, **Min**imum
160%	1 hour, **Max**imum
200%	2 minutes, **Max**imum

AGENCY APPROVALS: MITI B Approval.

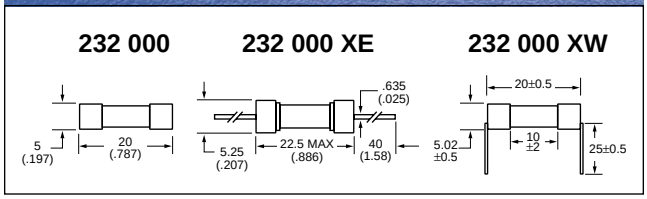
INTERRUPTING RATING:
500 amperes at 125 VAC
100 amperes at 250 VAC

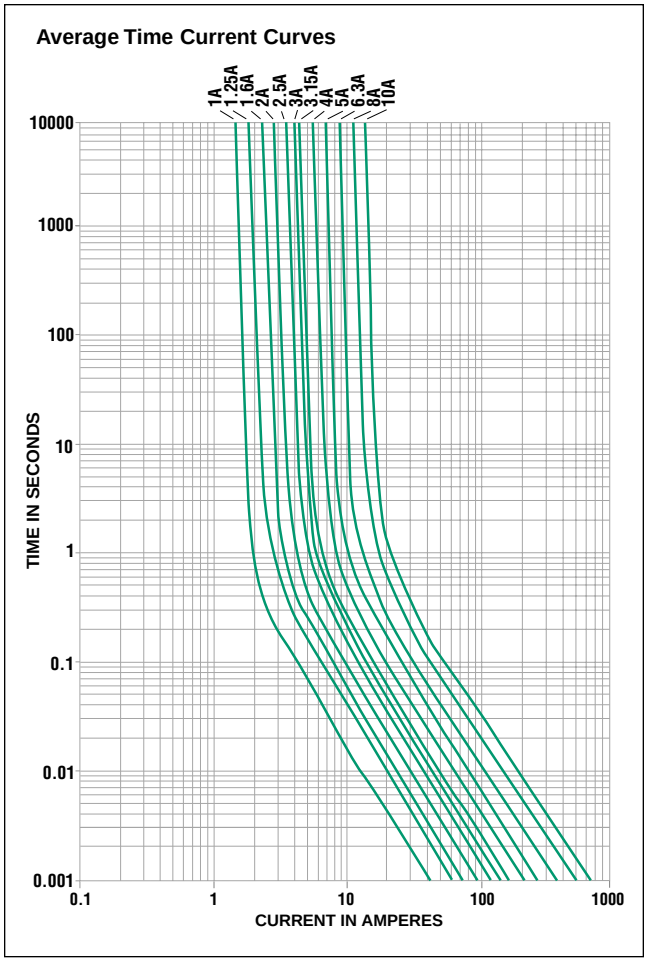
PACKAGING: For Axial Leads add packaging suffix XE. For Radial Leads add packaging suffix XW. For tape and reel options contact Littelfuse.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating*	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
0232 001.	1	125/250	0.0957	1.41
0232 1.25	1.25	125/250	0.0707	4.22
0232 01.6	1.6	125/250	0.0567	7.14
0232 002.	2	125/250	0.0385	8.47
0232 02.5	2.5	125/250	0.0297	14.25
0232 003.	3	125/250	0.0257	17.65
0232 3.15	3.15	125/250	0.0235	22.55
0232 004.	4	125/250	0.018	38.75
0232 005.	5	125/250	0.0145	58.25
0232 06.3	6.3	125/250	0.0105	92.85
0232 008.	8	125/250	.0076	187.5
0232 010.	10	125/250	.0061	298.5

*Voltage Rating is not marked on fuse.





DESIGNED TO MEET UL/CSA STANDARDS

5 x 20 mm Fast-Acting Type

- Designed to UL/CSA/ANCE 248 Standard.
- Available in Cartridge and Axial Lead Format.
- Available in ratings of 0.100 to 6 amperes.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	1 second, **Max**imum

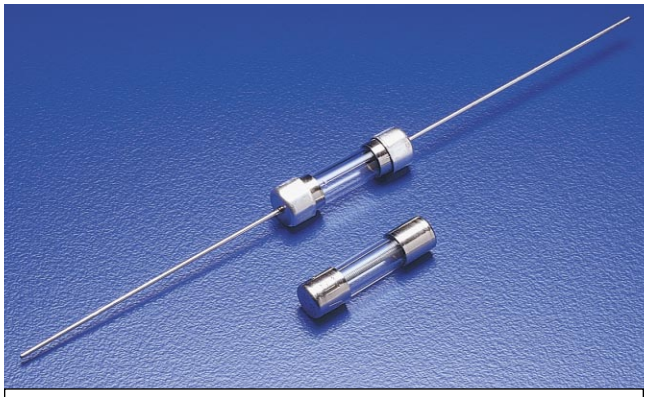
AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

INTERRUPTING RATING:

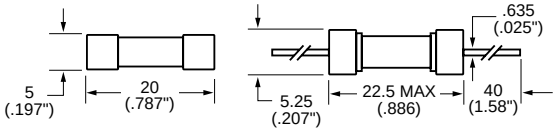
1A	10,000 amperes at 125 VAC 35 amperes at 250 VAC
1.25A-3.5A	10,000 amperes at 125 VAC 100 amperes at 250 VAC
4A-10A	10,000 amperes at 125 VAC

ORDERING INFORMATION:

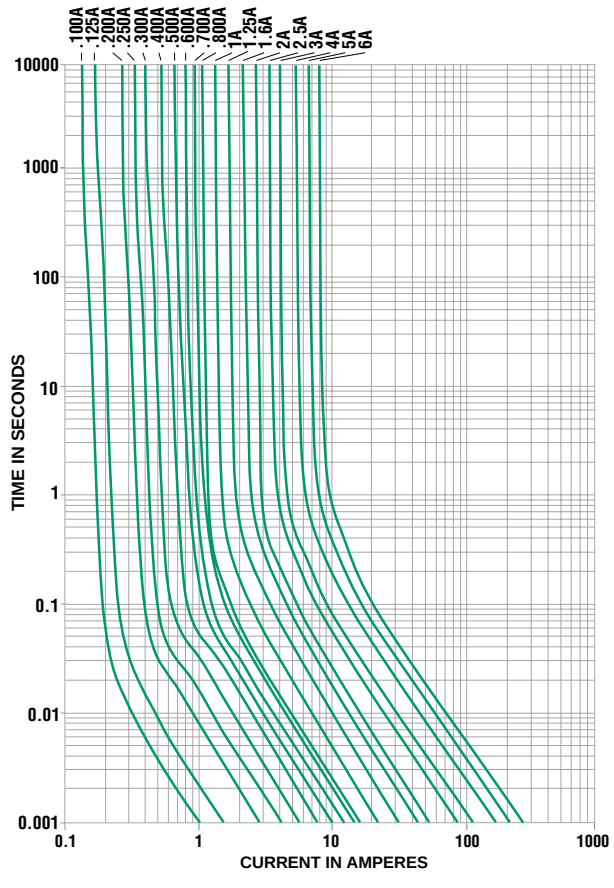
Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
235.100	**236**.100	.100	250	8.40	0.00160
235.125	**236**.125	.125	250	5.75	0.00280
235.200	**236**.200	.200	250	3.15	0.00890
235.250	**236**.250	.250	250	2.25	0.0170
235.300	**236**.300	.300	250	1.60	0.0330
235.400	**236**.400	.400	250	1.08	0.0600
235.500	**236**.500	.500	250	0.455	0.0710
235.600	**236**.600	.600	250	0.318	0.115
235.700	**236**.700	.700	250	0.263	0.160
235.800	**236**.800	.800	250	0.195	0.260
235 001	**236** 001	1	250	0.153	0.480
235 1.25	**236** 1.25	1.25	250	0.106	1.12
235 01.6	**236** 01.6	1.6	250	0.0775	2.08
235 002	**236** 002	2	250	0.0600	2.72
235 02.5	**236** 02.5	2.5	250	0.0438	5.59
235 003	**236** 003	3	250	0.0348	8.62
235 004	**236** 004	4	125	0.0248	17.60
235 005	**236** 005	5	125	0.0185	28.15
235 006	**236** 006	6	125	0.0150	48.60



235 000 **Series** **235** 000 **XE**
236 000 **Series**



Average Time Current Curves



DESIGNED TO UL/CSA STANDARD

5 x 20 mm Medium Acting Fuse

- Designed to UL/ CSA/ANCE 248 Standard.
- Available in Cartridge, Axial and Radial Lead Format.
- Available in ratings of 1A to 10A.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1–3.5	4 hours, **Min**imum
	4–10	1 hour, **Min**imum
135%	1–10	1 hour, **Max**imum
200%	1–10	3 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA. Approved by MITI.

INTERRUPTING RATING:

1A 10,000 amperes at 125 VAC
35 amperes at 250 VAC

1.25A-3.5A 10,000 amperes at 125 VAC
100 amperes at 250 VAC

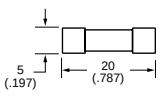
4A-10A 10,000 amperes at 125 VAC
200 amperes at 250 VAC

PACKAGING: For Axial Leads add packaging suffix XE. For Radial Leads add packaging suffix XW. For tape and reel options contact Littelfuse.

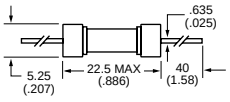
ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2Sec
0233 001	1	125	0.18	2.03
0233 1.25	1.25	125	0.13	3.48
0233 01.6	1.6	125	0.088	6.31
0233 002.	2	125	0.068	10.2
0233 02.5	2.5	125	0.052	17.5
0233 003.	3	125	0.043	27.0
0233 3.15	3.15	125	0.038	30.6
0233 03.5	3.5	125	0.034	37.3
0233 004.	4	125	0.032	53.0
0233 005.	5	125	0.022	92.4
0233 006.	6	125	0.018	135
0233 06.3	6.3	125	0.017	156
0234 001	1	250	0.18	2.03
0234 1.25	1.25	250	0.13	3.48
0234 01.6	1.6	250	0.088	6.31
0234 002.	2	250	0.068	10.2
0234 02.5	2.5	250	0.052	17.5
0234 003.	3	250	0.043	27.0
0234 3.15	3.15	250	0.038	30.6
0234 03.5	3.5	250	0.034	37.3
0234 004.	4	250	0.032	10.7
0234 005.	5	250	0.022	21.2
0234 006.	6	250	0.018	33.9
0234 06.3	6.3	250	0.017	38.7
0234 008.	8	250	0.013	82.9
0234 010.	10	250	0.010	133

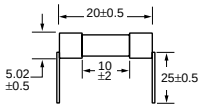
233 000
234 000



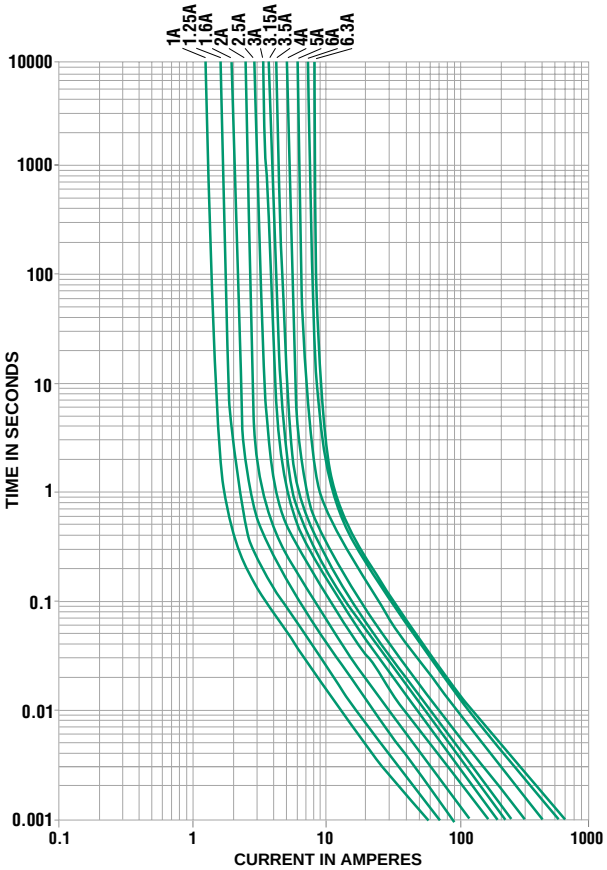
233 000 XE
234 000 XE



233 000 XW
234 000 XW



Average Time Current Curves



DESIGNED TO MEET UL/CSA STANDARDS

5 x 20 mm Time Lag Fuse (Slo-Blo® Type Fuse)

- Designed to UL/CSA/ANCE 248 Standard.
- Available in Cartridge and Axial Lead Format.
- Available in ratings of 0.200 to 5 amperes.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	5 seconds, **Min**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA. Approved by MITI from 1 through 5 amperes.

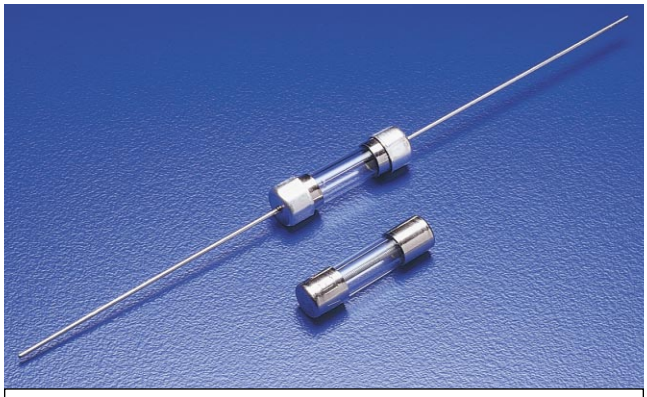
INTERRUPTING RATING:

1A	10,000 amperes at 125 VAC 35 amperes at 250 VAC
1.25A-3.5A	10,000 amperes at 125 VAC 100 amperes at 250 VAC
4A-10A	10,000 amperes at 125 VAC

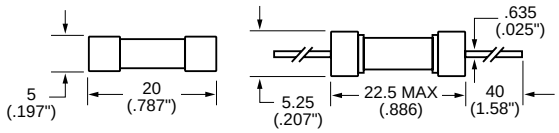
PATENTED

ORDERING INFORMATION:

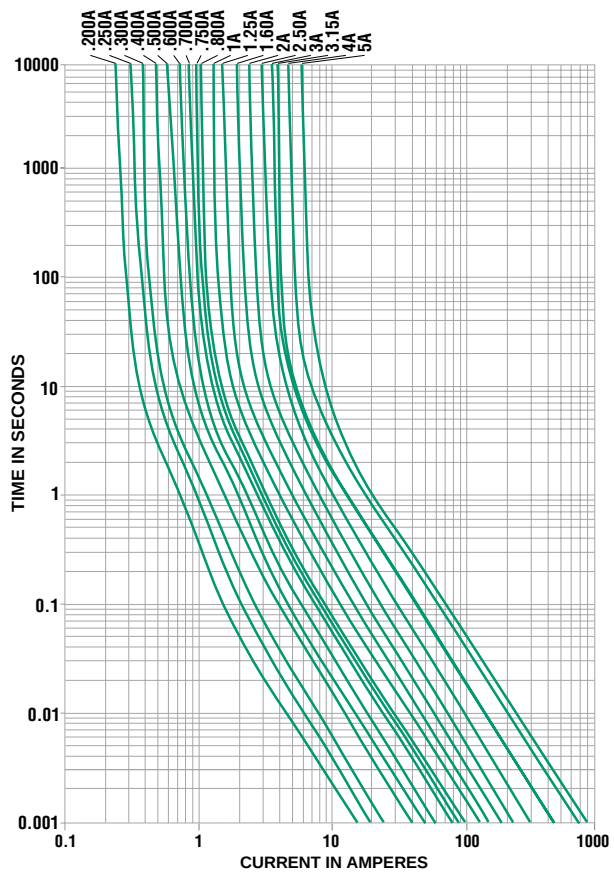
Cartridge Catalog Number	Axial Lead Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec.
239.200	**238**.200	.200	250	8.40	0.170
239.250	**238**.250	.250	250	3.00	0.3508
239.300	**238**.300	.300	250	2.25	0.630
239.400	**238**.400	.400	250	1.46	1.53
239.500	**238**.500	.500	250	0.865	2.04
239.600	**238**.600	.600	250	0.688	2.48
239.700	**238**.700	.700	250	0.550	4.23
239.750	**238**.750	.750	250	0.453	5.57
239.800	**238**.800	.800	250	0.403	7.77
239 001	**238** 001	1	250	0.313	11.60
239 1.25	**238** 1.25	1.25	250	0.200	20.05
239 01.6	**238** 01.6	1.60	250	0.122	31.25
239 002	**238** 002	2	250	0.0975	51.95
239 02.5	**238** 02.5	2.50	250	0.053	81.85
239 003	**238** 003	3	250	0.0480	133.0
239 3.15	**238** 3.15	3.15	250	0.0425	131.5
239 004	**238** 004	4	125	0.0313	278.0
239 005	**238** 005	5	125	0.0208	311.0



239 000 **Series** **239** 000 **XE**
238 000 **Series**



Average Time Current Curves



SPECIAL

3AB Very Fast-Acting Type

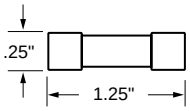
For protection of silicon controlled rectifiers and similar solid-state devices.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1–30	4 hours, **Min**imum
250%	1–10	.2 second, **Max**imum
	12–30	1 second, **Max**imum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories from 1 through 10 amperes at 250 VAC/65 VDC, 12 through 30 amperes at 65 VAC/VDC.

322 000 **Series**



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms
322 001	1	250	0.26
322 1.25	1 1/4	250	0.175
322 002	2	250	0.132
322 003	3	250	0.063
322 004	4	250	0.044
322 005	5	250	0.035
322 006	6	250	0.027
322 007	7	250	0.022
322 008	8	250	0.019
322 009	9	250	0.016
322 010	10	250	0.0135
322 012	12	65	0.0052
322 015	15	65	0.0043
322 020	20	65	0.0034
322 025	25	65	0.0029
322 030	30	65	0.0023

LOW VOLTAGE

SFE Fast-Acting Type

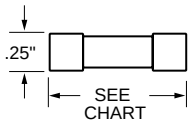
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	10 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories.

DESIGN STANDARDS: UL Standard 275. SAE (Society of Automotive Engineers) J554.

307 000 **Series**



ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Fuse Length
307 004	4	32	0.0220	5/8"
307 006	6	32	0.0144	3/4"
307 07.5	7 1/2	32	0.0113	7/8"
307 009	9	32	0.00945	7/8"
307 014	14	32	0.0055	1 1/16"
307 020	20	32	0.0034	1 1/4"
307 030	30	32	0.0021	1 7/16"

SUBMINIATURE

LT-5™ Fast-Acting Fuse 662 Series

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Time
210%	30 minutes, **Max**imum
275%	.010 sec **Min.**; 3 sec **Max**
400%	.003 sec **Min.**; .030 sec **Max**
1000%	.020 sec **Max**imum

AGENCY APPROVALS: IEC 60127-3/1: Semko and VDE approved 50 mA through 3.15 A. Recognized under the Components Program Underwriters Laboratories and recognized by CSA.

INTERRUPTING RATINGS: 35A or 10X rated current; whichever is greater.

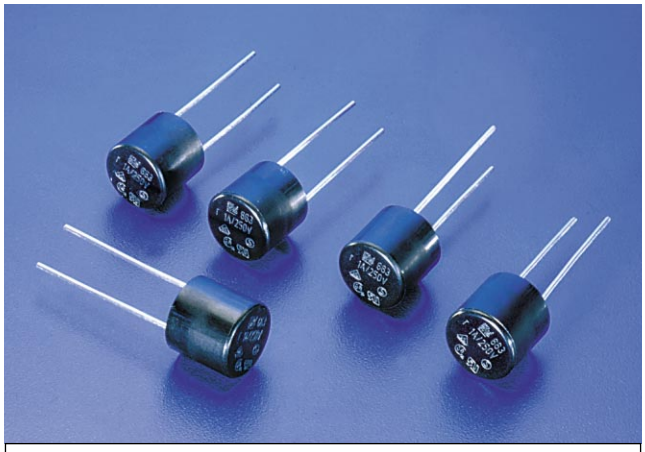
PACKAGING:
Please refer to the following suffixes when ordering.
Bulk 100 pieces:
Short Lead (Bulk) HXSL
Long Lead (Bulk) HXLL
Tape and Reel 750 pieces:
Long Lead (Tape and Reel IEC 286-2) ZRLL

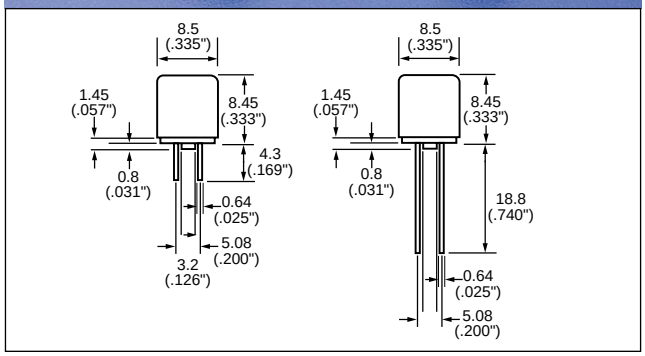
PATENTED

ORDERING INFORMATION:

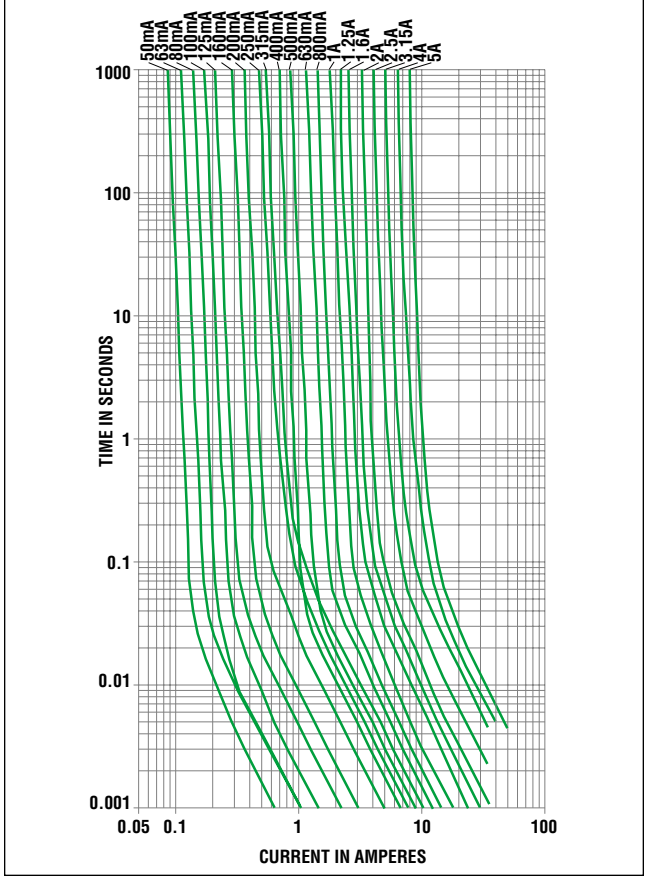
Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
0662.050	.050	250	4483	0.004
0662.063	.063	250	3865	0.001
0662.080	.080	250	2545	0.001
0662.100	.100	250	2010	0.002
0662.125	.125	250	1345	0.006
0662.160	.160	250	2960	0.014
0662.200	.200	250	2255	0.024
0662.250	.250	250	1460	0.058
0662.315	.315	250	1209	0.104
0662.400	.400	250	180	0.044
0662.500	.500	250	128	0.090
0662.630	.630	250	96	0.150
0662.800	.800	250	78	0.220
0662 001.	1.00	250	60	0.330
0662 1.25	1.25	250	45	0.680
0662 01.6	1.60	250	37	0.940
0662 002.	2.00	250	29	1.330
0662 02.5	2.50	250	24	1.940
0662 3.15	3.15	250	17	5.400
0662 004.	4.00	250	13	7.900
0662 005.	5.00	250	10	11.190

Refer to page 96 for LT-5™ holder information.





Average Time Current Curves



SUBMINIATURE

LT-5™ Time Lag Fuse 663 Series

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Time
210%	2 minutes, **Max**imum
275%	.4 sec **Min.**; 10 seconds **Max**
400%	.15 sec **Min.**; 3 seconds **Max**imum
1000%	.02 sec **Min**. .15 seconds **Max**imum

AGENCY APPROVALS: IEC 60127-3/1: Semko and VDE approved through 4 amps. Recognized under the Components Program Underwriters Laboratories and recognized by CSA.

INTERRUPTING RATINGS: 35A or 10X rated current; which ever is greater.

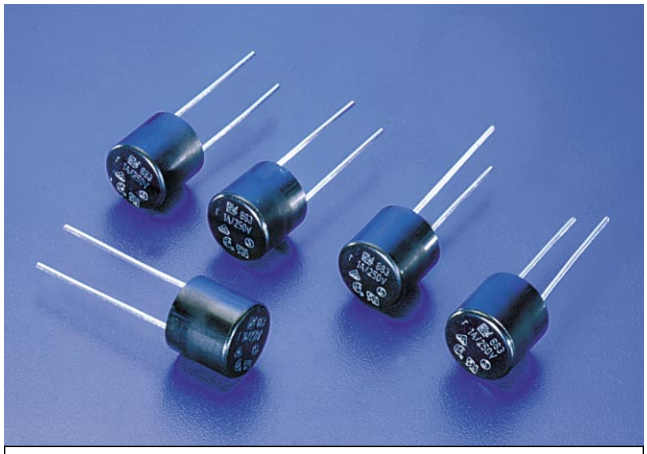
PACKAGING:
Please refer to the following suffixes when ordering.
Bulk 100 pieces:
Short Lead (Bulk) HXSL
Long Lead (Bulk) HXLL
Tape and Reel 750 pieces:
Long Lead (Tape and Reel IEC 286-2) ZRLL

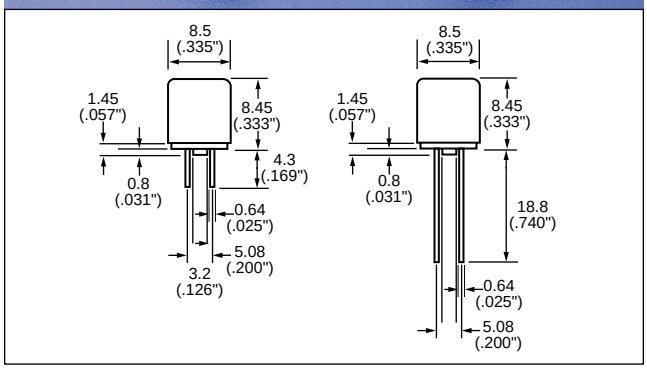
PATENTED

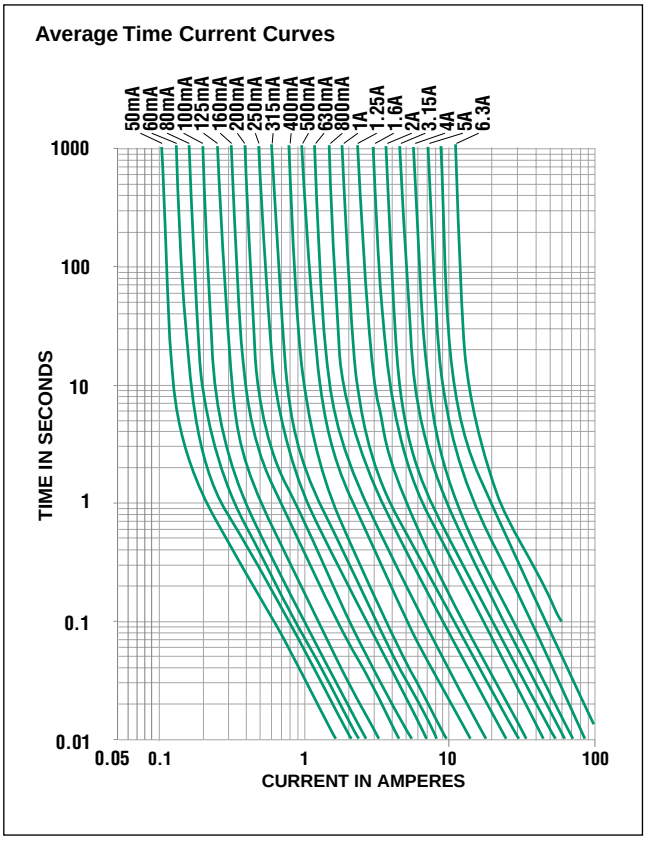
ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
0663.050	.050	250	7573	0.03
0663.063	.063	250	4490	0.05
0663.080	.080	250	2648	0.07
0663.100	.100	250	1869	0.08
0663.125	.125	250	1241	0.12
0663.160	.160	250	990	0.24
0663.200	.200	250	718	0.35
0663.250	.250	250	475	0.6
0663.315	.315	250	326	0.8
0663.400	.400	250	239	1.1
0663.500	.500	250	187	2.5
0663.630	.630	250	129	4
0663.800	.800	250	87	8
0663 001.	1.00	250	75	12
0663 1.25	1.25	250	50	15
0663 01.6	1.60	250	36	30
0663 002.	2.00	250	27	34
0663 02.5	2.50	250	20	55
0663 3.15	3.15	250	17	76
0663 004.	4.00	250	12	80
0663 005.	5.00	250	9	230
0663 06.3	6.30	250	7	360

Refer to page 96 for LT-5™ holder information.







SUBMINIATURE

LT-5™ Time Lag Extended Breaking Capacity Fuse 664 Series

- Similar to the 663 fuse, this fuse is designed with a higher breaking capacity.
- Meets IEC 60127-3/4 specifications.
- Available in short and long lead variations.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Time
210%	2 minutes, **Max**imum
275%	.4 sec **Min.**; 10 seconds **Max**imum
400%	.1 sec **Min.**; 3 seconds **Max**imum
1000%	.02 sec **Min**. .15 seconds **Max**imum

AGENCY APPROVALS: IEC 60127-3/4: Semko and VDE approved through 4A. Recognized under the Components Program Underwriters Laboratories and recognized by CSA.

INTERRUPTING RATINGS: 100A at 250 VAC.

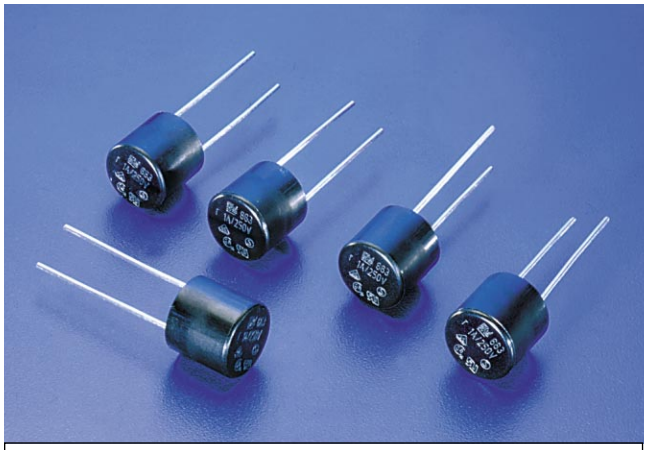
PACKAGING:
Please refer to the following suffixes when ordering.
Bulk 100 pieces:
Short Lead (Bulk) HXSL
Long Lead (Bulk) HXLL
Tape and Reel 750 pieces:
Long Lead (Tape and Reel IEC 286-2) ZRLL

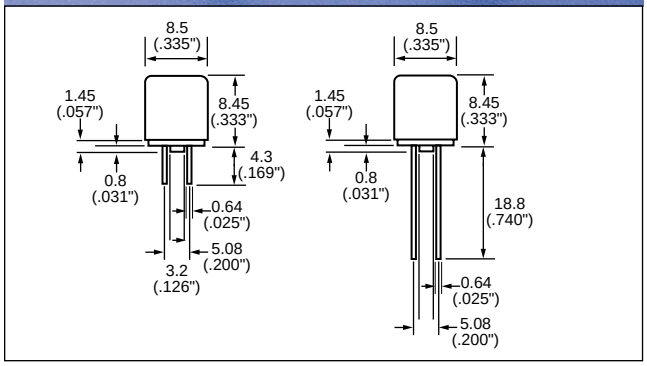
PATENTED

ORDERING INFORMATION:

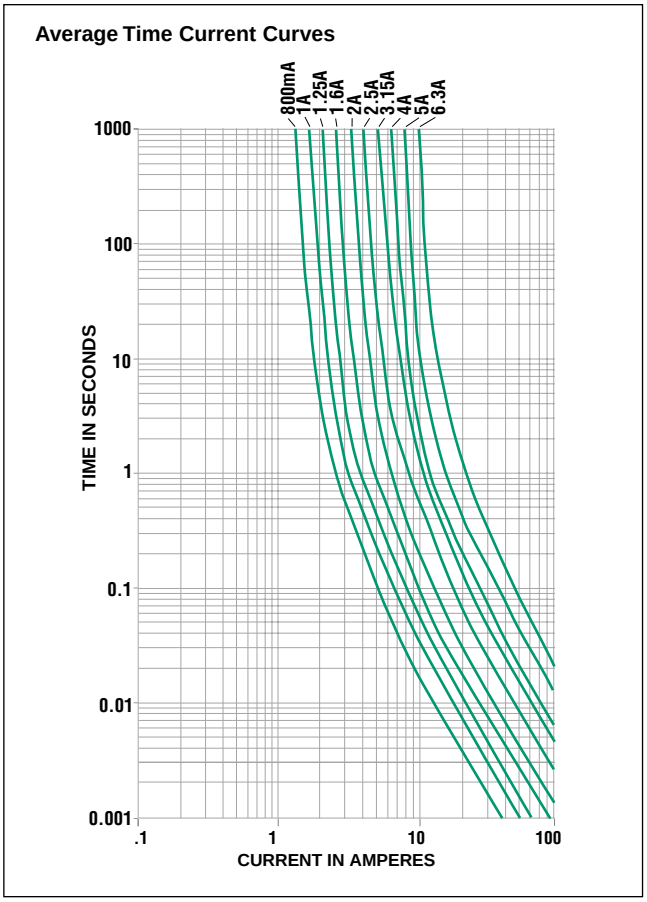
Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
0664.800	.800	250	183	2.2
0664 001.	1.00	250	123	4.4
0664 1.25	1.25	250	85	6.3
0664 01.6	1.60	250	60	10
0664 002.	2.00	250	39	16
0664 02.5	2.50	250	30	32
0664 3.15	3.15	250	20	57
0664 004.	4.00	250	17	77
0664 005.	5.00	250	12	155
0664 06.3	6.30	250	9	262

Refer to page 96 for LT-5™ holder information.





Average Time Current Curves



SUBMINIATURE

LT-5™ Time Lag Fuse 665 Series

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Time
100%	4 hours **Min**
150%	10 minutes **Max**
200%	60 sec **Max**

AGENCY APPROVALS: UL248-14 approved 250 mA through 6.3 A. Listed under the Components Program Underwriters Laboratories and recognized by CSA.

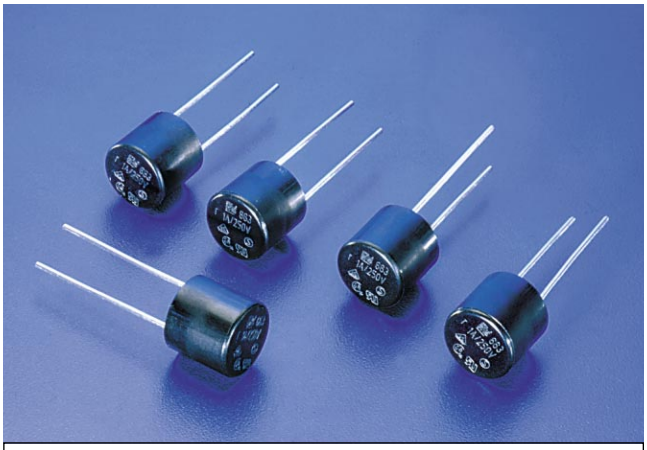
INTERRUPTING RATINGS: 50A at 250 VAC.

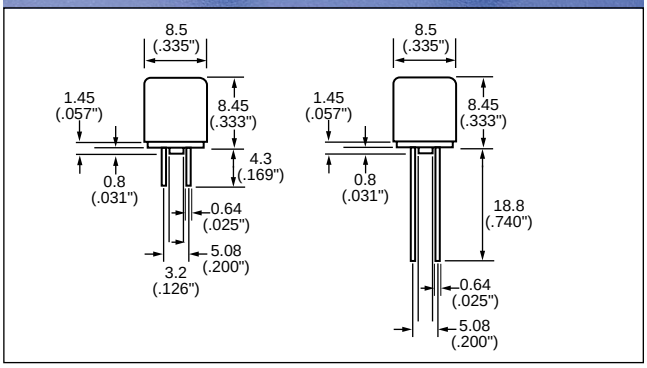
PACKAGING:
Please refer to the following suffixes when ordering.
Bulk 100 pieces:
Short Lead (Bulk) HXSL
Long Lead (Bulk) HXLL
Tape and Reel 750 pieces:
Long Lead (Tape and Reel IEC 286-2) ZRLL

PATENTED

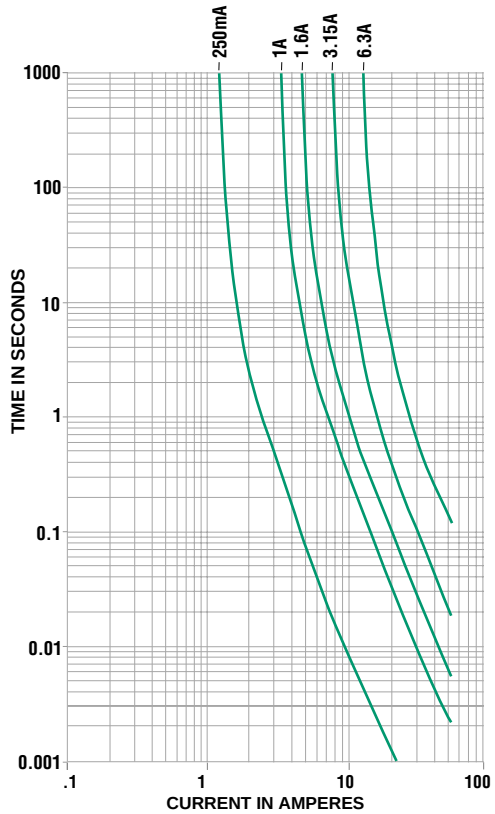
ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating	I^2t at 10 x In (A^2 Sec)
0665.250	.250	250	.26
0665001.	1.00	250	6.85
066501.6	1.60	250	17.5
06653.15	3.15	250	55
066506.3	6.30	250	287





Average Time Current Curves



MIDGET

AC Fast-Acting Type

UL CSA QPL

Fast-acting fuses designed for use in circuits with high AC fault current capacity or where military approval is required.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/10–30	4 hours, **Min**imum
135%	1/10–30	1 hour, **Max**imum
200%	1/10–4	2 seconds, **Max**imum
	5–12	15 seconds, **Max**imum
	15–30	2 minutes, **Max**imum

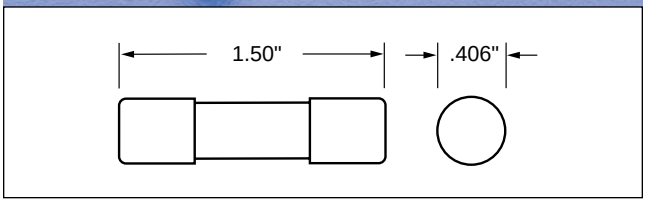
AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA from 3/10 through 30 amperes.

KLK INTERRUPTING RATING:
100,000 amperes (capable of 200,000) at 600VAC.

MILITARY TYPE F60C INTERRUPTING RATINGS:
200,000 amperes at 500VAC
150,000 amperes at 500VDC

FUSES TO MIL SPEC: See F60C type in Military Section.

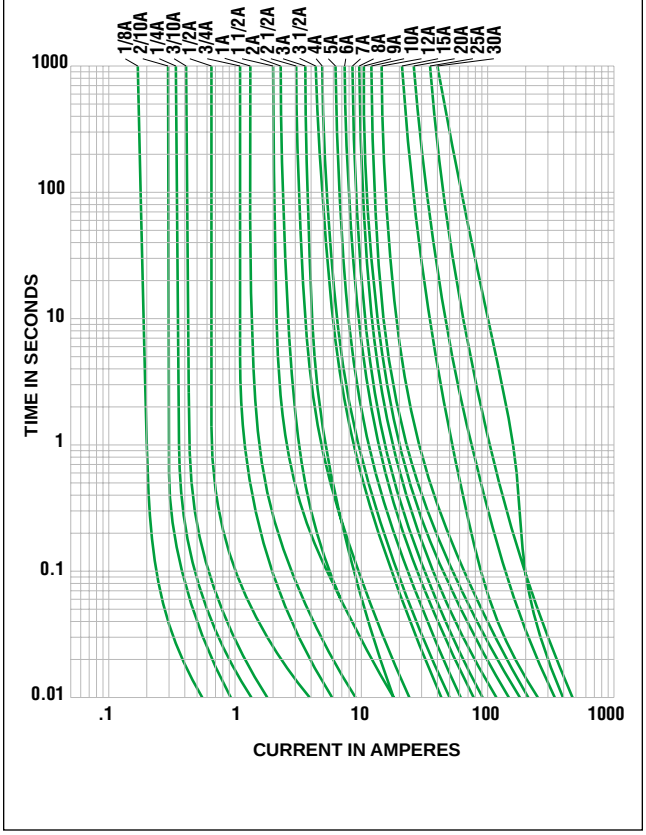
PATENTED



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms
KLK 1/10	.100	600	85.5
KLK 1/8	.125	600	65.0
KLK 2/10	.200	600	30.9
KLK 1/4	.250	600	22.0
KLK 3/10	.300	600	16.2
KLK 1/2	.500	600	7.99
KLK 3/4	.750	600	.398
KLK 1	1	600	.249
KLK 1½	1.5	600	.132
KLK 2	2	600	.129
KLK 2½	2.5	600	.0989
KLK 3	3	600	.0773
KLK 3½	3.5	600	.0613
KLK 4	4	600	.0511
KLK 5	5	600	.0261
KLK 6	6	600	.0261
KLK 7	7	600	.0205
KLK 8	8	600	.0194
KLK 9	9	600	.0166
KLK 10	10	600	.0128
KLK 12	12	600	.0103
KLK 15	15	600	.0073
KLK 20	20	600	.00421
KLK 25	25	600	.00302
KLK 30	30	600	.002816

Average Time Current Curves



MIDGET

DC Fast-Acting Type

QPL

Fast-acting fuses designed for use in circuits with DC fault currents up to 10,000 amperes. Same AC interrupting ratings as KLK series.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/10–30	4 hours, **Min**imum
135%	1/10–30	1 hour, **Max**imum
200%	1/10–4	2 seconds, **Max**imum
	5–12	15 seconds, **Max**imum
	15–30	2 minutes, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA from 3/10 through 30 amperes.

INTERRUPTING RATINGS:
10,000 amperes at 600 VDC.
100,000 amperes (capable of 200,000) at 600VAC.

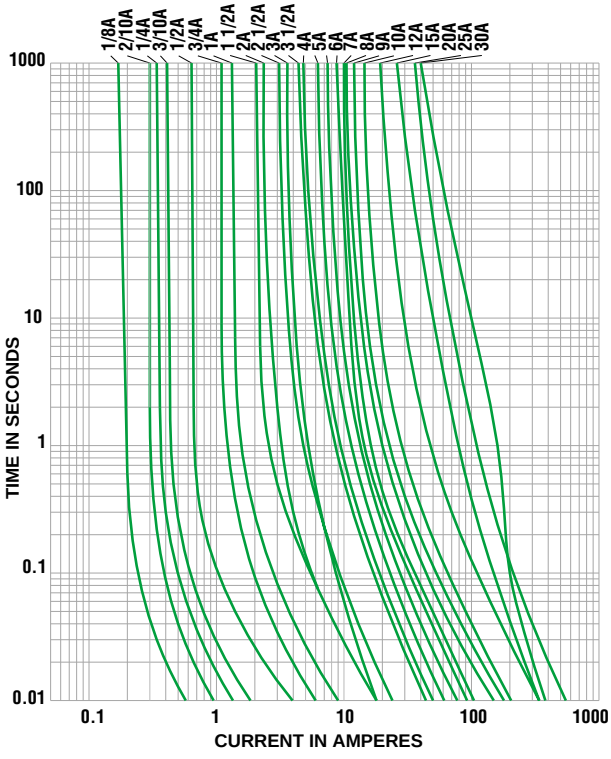
FUSES TO MIL SPEC: See **KLK Series** for QPL fuses with DC ratings.

PATENTED

ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
KLK D 1/10	.100	600	85.5
KLK D 1/8	.125	600	65.0
KLK D 2/10	.200	600	30.9
KLK D 1/4	.250	600	22.0
KLK D 3/10	.300	600	16.2
KLK D 1/2	.500	600	8.16
KLK D 3/4	.750	600	.402
KLK D 1	1	600	.252
KLK D 1½	1.5	600	.134
KLK D 2	2	600	.124
KLK D 2½	2.5	600	.0989
KLK D 3	3	600	.0773
KLK D 3½	3.5	600	.0613
KLK D 4	4	600	.0511
KLK D 5	5	600	.0363
KLK D 6	6	600	.0261
KLK D 7	7	600	.0205
KLK D 8	8	600	.0194
KLK D 9	9	600	.0166
KLK D 10	10	600	.0128
KLK D 12	12	600	.0103
KLK D 15	15	600	.0078
KLK D 20	20	600	.0045
KLK D 25	25	600	.00329
KLK D 30	30	600	.002816

Average Time Current Curves



MIDGET

250 Volt Slo-Blo® Type Fuse

UL SP QPL

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	12 seconds, **Min**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA.

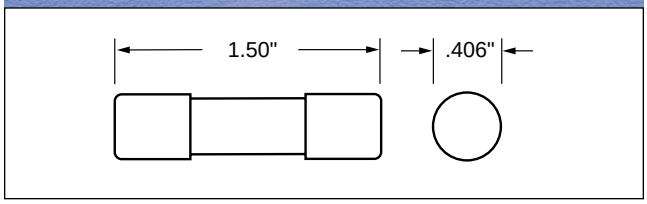
INTERRUPTING RATING:
10,000 amperes at 250 VAC.

FUSES TO MIL SPEC: See F09B type in Military Section.

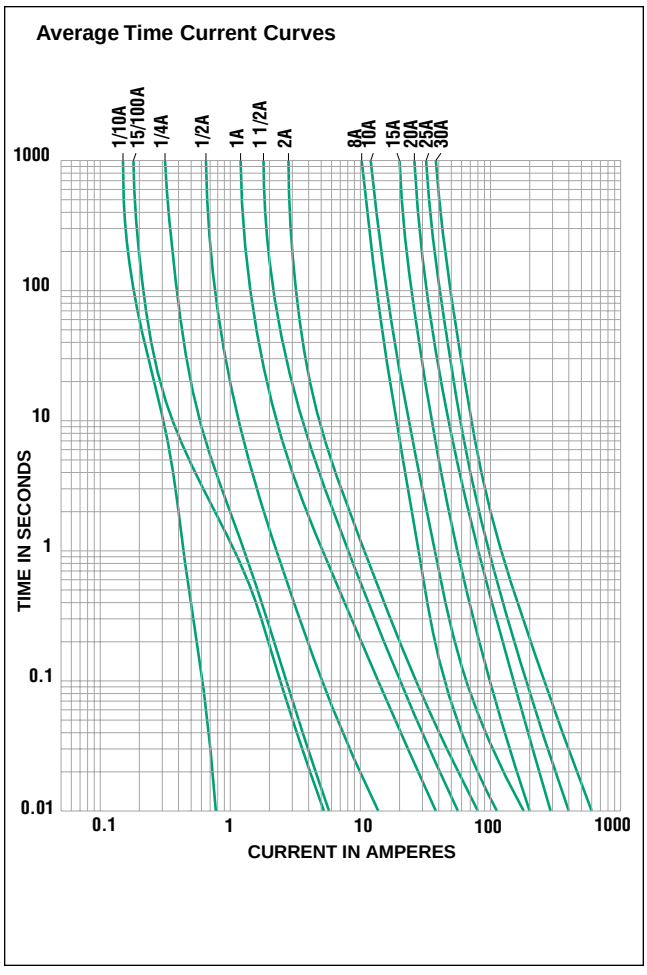
PATENTED

ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
FLM 1/10	.100	250	188.0
FLM 15/100	.150	250	87.0
FLM 2/10	.200	250	35.1
FLM 1/4	.250	250	5.40
FLM 3/10	.300	250	3.79
FLM 4/10	.400	250	2.10
FLM 1/2	.500	250	1.54
FLM 6/10	.600	250	1.024
FLM 8/10	.800	250	.623
FLM 1	1	250	.395
FLM 1 1/8	1.125	250	.356
FLM 1 1/4	1.25	250	.286
FLM 1 4/10	1.4	250	.253
FLM 1 1/2	1.5	250	.219
FLM 1 6/10	1.6	250	.184
FLM 1 8/10	1.8	250	.162
FLM 2	2	250	.125
FLM 2 1/4	2.25	250	.102
FLM 2 1/2	2.5	250	.0904
FLM 2 8/10	2.8	250	.0735
FLM 3	3	250	.0700
FLM 3 2/10	3.2	250	.0576
FLM 3 1/2	3.5	250	.0517
FLM 4	4	250	.0426
FLM 4 1/2	4.5	250	.0360
FLM 5	5	250	.0413
FLM 5 6/10	5.6	250	.0326
FLM 6	6	250	.0280
FLM 6 1/4	6.25	250	.0277
FLM 7	7	250	.02133
FLM 8	8	250	.01247
FLM 9	9	250	.01066
FLM 10	10	250	.00903
FLM 12	12	250	.00698
FLM 15	15	250	.00530
FLM 20	20	250	.00385
FLM 25	25	250	.00275
FLM 30	30	250	.00226



Average Time Current Curves



MIDGET

500 Volt Slo-Blo® Type Fuse

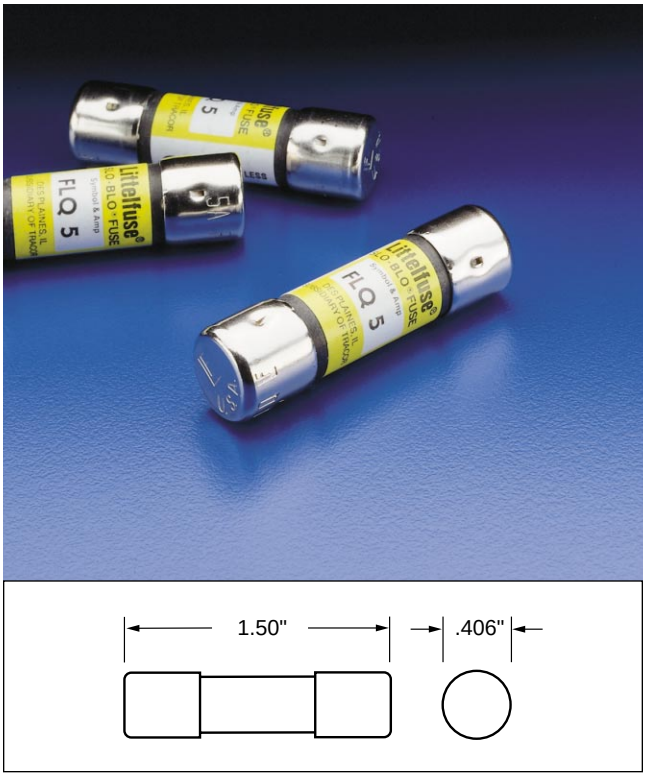
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	12 seconds, **Min**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA.

INTERRUPTING RATING:
10,000 amperes at 500 VAC.

PATENTED



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
FLQ 1/10	.100	500	188.0
FLQ 1/8	.125	500	125.9
FLQ 15/100	.150	500	87.0
FLQ 3/16	.187	500	45.5
FLQ 2/10	.200	500	35.1
FLQ 1/4	.250	500	9.7
FLQ 3/10	.300	500	7.4
FLQ 4/10	.400	500	4.33
FLQ 1/2	.500	500	2.76
FLQ 6/10	.600	500	1.88
FLQ 8/10	.800	500	1.03
FLQ 1	1	500	.7864
FLQ 1 1/8	1.125	500	.652
FLQ 1 1/4	1.25	500	.509
FLQ 1 1/2	1.5	500	.3835
FLQ 1 6/10	1.6	500	.296
FLQ 2	2	500	.2086
FLQ 2 1/4	2.25	500	.1563
FLQ 2 1/2	2.5	500	.1381
FLQ 3	3	500	.0954
FLQ 3 2/10	3.2	500	.0938
FLQ 3 1/2	3.5	500	.0732
FLQ 4	4	500	.0618
FLQ 4 1/2	4.5	500	.0463
FLQ 5	5	500	.0348
FLQ 5 6/10	5.6	500	.0327
FLQ 6	6	500	.0284
FLQ 6 1/4	6.25	500	.0263
FLQ 7	7	500	.0212
FLQ 8	8	500	.01830
FLQ 9	9	500	.01540
FLQ 10	10	500	.01563
FLQ 12	12	500	.01176
FLQ 14	14	500	.00740
FLQ 15	15	500	.00690
FLQ 20	20	500	.004063
FLQ 25	25	500	.002920
FLQ 30	30	500	.002816

SPECIAL MIDGET

1 3/8" Long Fast-Acting Type Fuse

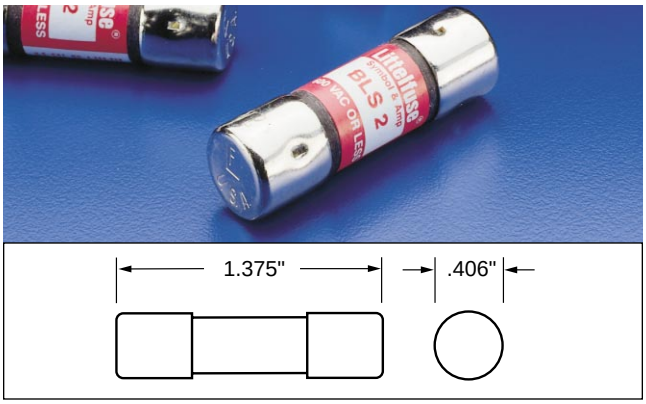
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	2/10–10	4 hours, **Min**imum
135%	2/10–10	1 hour, **Max**imum
200%	2/10–5	5 seconds, **Max**imum
	6–10	10 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories from 1/2 through 5 amperes and Certified by CSA from 1/2 through 5 amperes.

INTERRUPTING RATING:
10,000 amperes at rated VAC.

PATENTED



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
BLS 2/10	.200	600	36
BLS 4/10	.400	600	11.5
BLS 1/2	.500	600	1.25
BLS 3/4	.750	600	.591
BLS 8/10	.800	600	.524
BLS 1	1	600	.944
BLS 1 1/2	1.5	600	.190
BLS 1 6/10	1.6	600	.180
BLS 1 8/10	1.8	600	.143
BLS 2	2	600	.2608
BLS 3	3	600	.10625
BLS 4	4	600	.0464
BLS 5	5	600	.0330
BLS 6	6	250	.0182
BLS 7	7	250	.1045
BLS 8	8	250	.012
BLS 10	10	250	.0081

Slo-Blo® Indicating Type Fuse

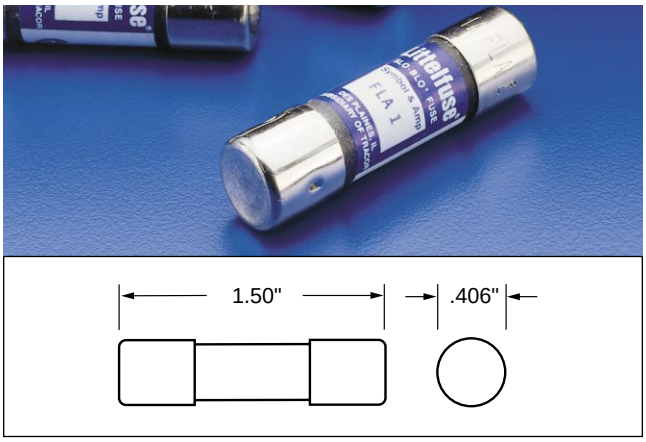
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories.

INTERRUPTING RATING:
10,000 amperes at rated VAC.

INDICATING PIN: Extends 0.3" when fuse opens.
NOTE: Fuses rated 12–30 amperes have dual tube construction.



ORDERING INFORMATION:

Catalog Number	Ampere Rating	Nominal Resistance Cold Ohms	Catalog Number	Ampere Rating	Nominal Resistance Cold Ohms	AC Voltage Rating
FLA 1/10	.100	200.0	**FLA** 5	5	.06304	125
FLA 15/100	.15	88.90	**FLA** 5 6/10	5.6	.05194	125
FLA 2/10	.200	50.00	**FLA** 6	6	.04253	125
FLA 1/4	.250	32.00	**FLA** 6 1/4	6.25	.03794	125
FLA 3/10	.300	22.20	**FLA** 7	7	.03146	125
FLA 4/10	.400	11.39	**FLA** 8	8	.01890	125
FLA 1/2	.500	8.00	**FLA** 10	10	.01387	125
FLA 6/10	.600	5.55	**FLA** 12	12	.00689	125
FLA 8/10	.800	3.65	**FLA** 15	15	.00530	125
FLA 1	1	1.9504	**FLA** 20	20	.00385	125
FLA 1 1/8	1.125	1.7004	**FLA** 25	25	.00275	125
FLA 1 1/4	1.250	1.4004	**FLA** 30	30	.00226	125
FLA 1 4/10	1.4	1.1204				125
FLA 1 1/2	1.5	.8204				125
FLA 1 6/10	1.6	.7027				125
FLA 1 8/10	1.8	.5637				125
FLA 2	2	.4627				125
FLA 2 1/4	2.25	.3557				125
FLA 2 1/2	2.5	.2599				125
FLA 2 8/10	2.8	.2048				125
FLA 3	3	.1816				125
FLA 3 2/10	3.2	.1587				125
FLA 3 1/2	3.5	.1195				125
FLA 4	4	.09772				125
FLA 4 1/2	4.5	.07875				125

MIDGET

Laminated Body Fast-Acting Type

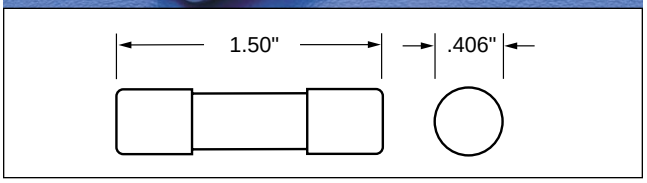
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	30 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA.

INTERRUPTING RATING:
10,000 amperes at rated VAC.

NOTE: Not recommended for applications in humid areas.



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
BLF 1/2	.500	250	1.57
BLF 1	1	250	.395
BLF 1 1/2	1.5	250	.2191
BLF 2	2	250	.125
BLF 2 1/2	2.5	250	.0946
BLF 3	3	250	.0696
BLF 4	4	250	.0432
BLF 5	5	250	.0413
BLF 6	6	260	.02842
BLF 6 1/4	6.25	250	.02741
BLF 7	7	250	.02282
BLF 8	8	250	.01664
BLF 9	9	250	.01364
BLF 10	10	250	.01097
BLF 12	12	250	.00920
BLF 15	15	250	.00684
BLF 20	20	125	.00528
BLF 25	25	125	.00378
BLF 30	30	125	.00289

Fibre Body Fast-Acting Type

QPL

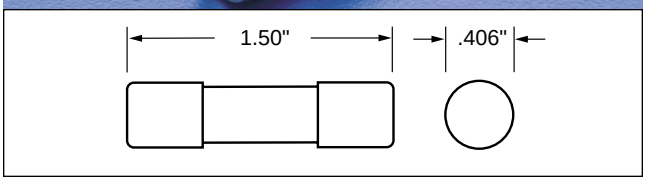
ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, **Min**imum
135%	1 hour, **Max**imum
200%	30 seconds, **Max**imum

AGENCY APPROVALS: Listed by Underwriters Laboratories and Certified by CSA.

INTERRUPTING RATING: 10,000 amperes at 250 VAC.

FUSES TO MIL SPEC: See F09A type in Military Section.



ORDERING INFORMATION:

Cartridge Catalog Number	Ampere Rating	AC Voltage Rating	Nominal Resistance Cold Ohms
BLN 1	1	250	.395
BLN 2	2	250	.222
BLN 3	3	250	.125
BLN 4	4	250	.071
BLN 5	5	250	.0432
BLN 6	6	250	.0413
BLN 8	8	250	.0284
BLN 10	10	250	.0166
BLN 12	12	250	.011
BLN 15	15	250	.00920
BLN 20	20	250	.00684
BLN 25	25	250	.00270
BLN 30	30	250	.00230

SPECIAL MIDGET

Class CC* Fast-Acting & Slo-Blo® Type Fuses

Fast-acting KLKR fuses provide fast-acting protection to equipment containing surge sensitive components. Use KLKR fuses for non-inductive loads not requiring time delay. CCMR fuses (formerly KLMR) are specifically designed to withstand sustained starting currents of small motors. The CCMR fuses provide short-circuit protection for motor branch-circuits. KLDR fuses are specifically designed to withstand the momentary high magnetizing currents of control transformers, solenoids, and similar inductive loads.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/10–30	4 hours, **Min**imum
135%	1/10–30	1 hour, **Max**imum

AGENCY APPROVALS: KLKR Series: UL listed Fast-Acting Class CC per UL 248 and CSA Certified. KLDR, CCMR Series: UL listed Time-Delay Class CC per UL 248 and CSA Certified.
*CCMR 35-60A UL Listed Time-Delay Class CD.

INTERRUPTING RATING: AC: 200,000 amperes
DC: 20,000 amperes

See page 83 for time current curves.

AGENCY FILE NUMBERS: UL E81895, CSA LR 29862.

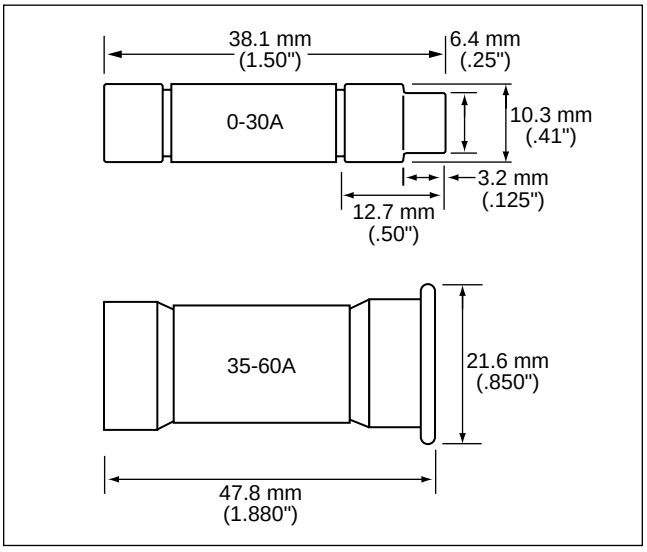
VOLTAGE RATINGS: AC: 600 Volts
DC: 250 Volts (CCMR 2/10 – 2A)
(CCMR 4 1/2 – 10A)
(CCMR 35 – 60A)
300 Volts (CCMR 2 1/4 – 4A)
300 Volts (KLDR)
300 Volts (KLKR)

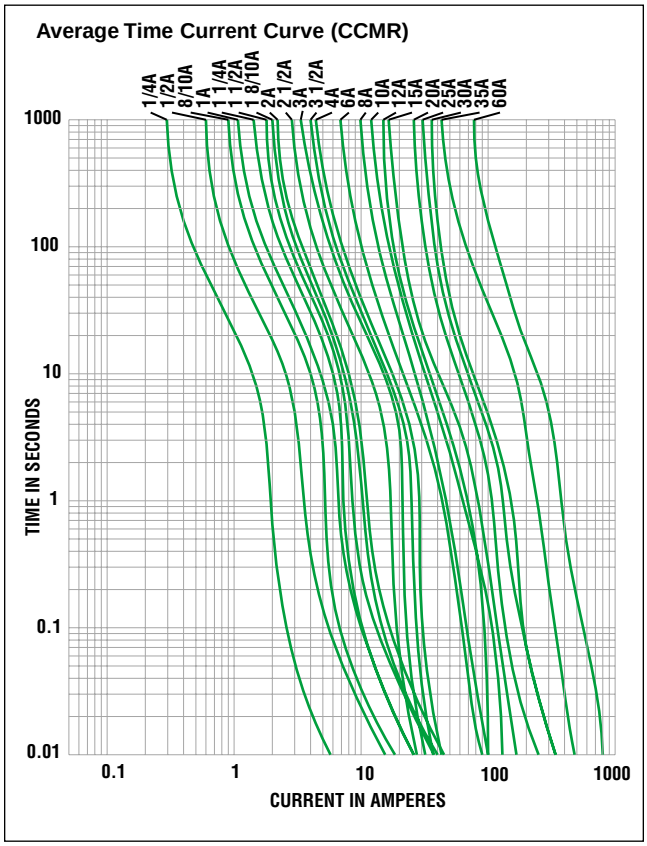
ORDERING INFORMATION:

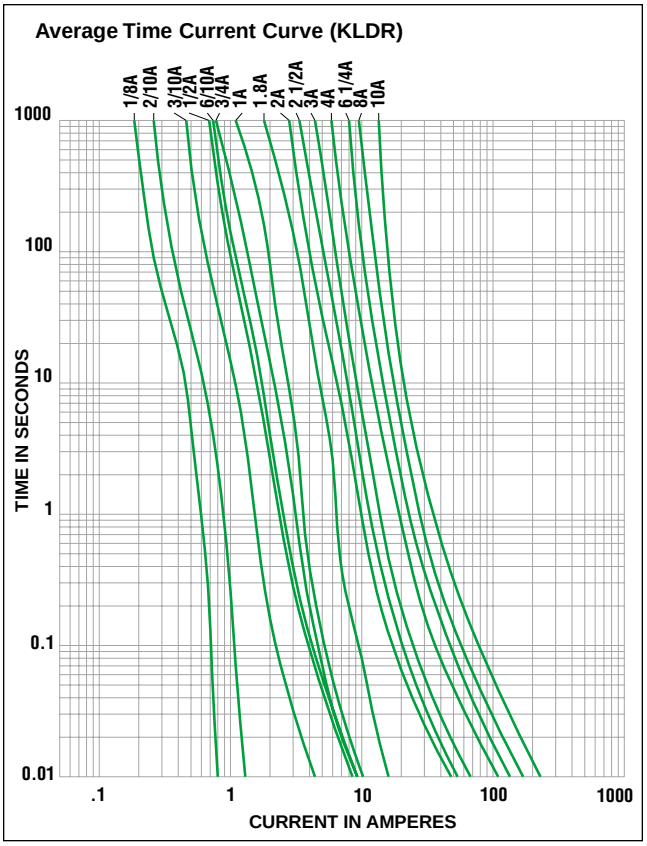
Ampere Rating	Catalog Number	Nominal Resistance Cold Ohms	Catalog Number	Nominal Resistance Cold Ohms	Catalog Number	Nominal Resistance Cold Ohms
1/10	–	–	**KLDR**.100	246	**KLKR**.100	79.33
1/8	–	–	**KLDR**.125	134.9	**KLKR**.125	56.52
15/100	–	–	**KLDR**.150	96	–	–
3/16	–	–	**KLDR**.187	66.4	–	–
2/10	**CCMR**.200	68.4	**KLDR**.200	57.8	**KLKR**.200	28.21
1/4	**CCMR**.250	43.3	**KLDR**.250	31.61	**KLKR**.250	19.22
3/10	**CCMR**.300	28.6	**KLDR**.300	25.5	**KLKR**.300	15.10
4/10	–	–	**KLDR**.400	13.6	–	–
1/2	**CCMR**.500	7.62	**KLDR**.500	15.9	**KLKR**.500	6.95
6/10	**CCMR**.600	8.2	**KLDR**.600	9.99	–	–
3/4	–	–	**KLDR**.750	6.08	**KLKR**.750	3.581
8/10	**CCMR**.800	4.013	**KLDR**.800	6.2	–	–
1	**CCMR** 001.	2.59	**KLDR** 001.	4.0	**KLKR** 001.	.2342
1 1/8	–	–	**KLDR** 1.12	2.94	–	–
1 1/4	**CCMR** 1.25	1.687	**KLDR** 1.25	2.33	–	–
1 4/10	**CCMR** 01.4	1.33	**KLDR** 01.4	1.5	–	–
1 1/2	**CCMR** 01.5	1.24	**KLDR** 01.5	.898	**KLKR** 01.5	.225
1 6/10	**CCMR** 01.6	.9894	**KLDR** 01.6	.625	–	–
1 8/10	**CCMR** 01.8	.7783	**KLDR** 01.8	.486	–	–
2	**CCMR** 002.	.485	**KLDR** 002.	.55	**KLKR** 002.	.135
2 1/4	**CCMR** 2.25	.4166	**KLDR** 2.25	.52	–	–
2 1/2	**CCMR** 02.5	.3375	**KLDR** 02.5	.333	**KLKR** 02.5	.0906
2 8/10	**CCMR** 02.8	.2400	**KLDR** 02.8	.26	–	–
3	**CCMR** 003.	.2188	**KLDR** 003.	.21	**KLKR** 003.	.0776
3 2/10	**CCMR** 03.2	.1855	**KLDR** 03.2	.171	–	–
3 1/2	**CCMR** 03.5	.1346	**KLDR** 03.5	.239	**KLKR** 03.5	.0562
4	**CCMR** 004.	.1231	**KLDR** 004.	.118	**KLKR** 004.	.0468
4 1/2	**CCMR** 04.5	.093	**KLDR** 04.5	.082	–	–
5	**CCMR** 005.	.0704	**KLDR** 005.	.0399	**KLKR** 005.	.0332
5 6/10	**CCMR** 05.6	.0535	**KLDR** 05.6	.0334	–	–
6	**CCMR** 006.	.0517	**KLDR** 006.	.0315	**KLKR** 006.	.0238
6 1/4	**CCMR** 6.25	.0464	**KLDR** 6.25	.03	–	–
7	**CCMR** 007.	.0369	**KLDR** 007.	.0253	**KLKR** 007.	.0208
7 1/2	**CCMR** 07.5	.027	**KLDR** 07.5	.0205	–	–
8	**CCMR** 008.	.023	**KLDR** 008.	.0193	**KLKR** 008.	.0177
9	**CCMR** 009.	.0193	**KLDR** 009.	.0155	**KLKR** 009.	.0151
10	**CCMR** 010.	.0133	**KLDR** 010.	.0122	**KLKR** 010.	.01325
12	**CCMR** 012.	.0114	**KLDR** 012.	.0114	**KLKR** 012.	.00852
15	**CCMR** 015.	.00708	**KLDR** 015.	.00708	**KLKR** 015.	.0074
17 1/2	**CCMR** 17.5	.00495	**KLDR** 17.5	.00495	–	–
20	**CCMR** 020.	.00360	**KLDR** 020.	.0036	**KLKR** 020.	.00511
25	**CCMR** 025.	.00250	**KLDR** 025.	.0025	**KLKR** 025.	.003775
30	**CCMR** 030.	.00240	**KLDR** 030.	.0024	**KLKR** 030.	.002954
35	**CCMR** 035.	.00426	–	–	–	–
40	**CCMR** 040.	.00286	–	–	–	–
45	**CCMR** 045.	.00246	–	–	–	–
50	**CCMR** 050.	.00182	–	–	–	–
60	**CCMR** 060.	.00118	–	–	–	–

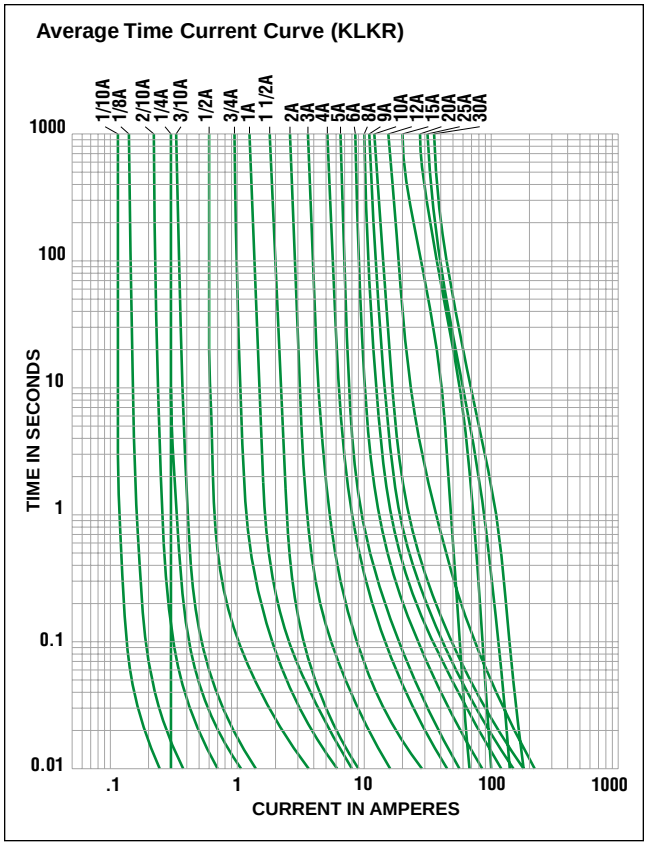
SPECIAL MIDGET

Class CC Fast-Acting & Slo-Blo® Type Fuses









MIDGET

KLQ Series Fuse

- The Littelfuse KLQ series is designed to protect gaseous vapor fixtures, HID ballasts, and other electronic and lighting circuits.
- The KLQ is the same physical size as the Littelfuse BLS, but has more time delay to handle transient and inrush currents.

VOLTAGE RATING: 600 VAC.

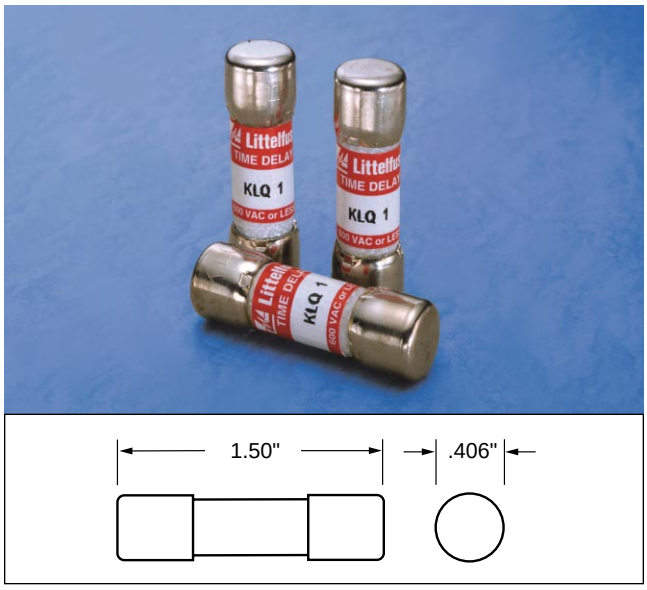
INTERRUPTING RATING:
10,000 amperes at rated VAC.

AMPERE RANGE: 1-15 amperes.

AGENCY APPROVALS: UL Listed per UL 248.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	AC Voltage Rating
KLQ 001	1	600
KLQ 1 6/10	1.6	600
KLQ 002	2	600
KLQ 003	3	600
KLQ 004	4	600
KLQ 005	5	600
KLQ 006	6	600



FLU Series Fuse

- The Littelfuse FLU series is designed specifically for the protection of multimeters.
- The 1000 VAC/VDC rating also makes the FLU ideal for a variety of other applications.

VOLTAGE RATING: 1000 VAC/VDC.

INTERRUPTING RATING: 44/100A: 10kA
11A: 20kA.

AMPERE RATINGS: 44/100 and 11 amperes.

AGENCY APPROVALS: UL Recognized under the components program.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	AC Voltage Rating
FLU 44/100	0.44	1000
FLU 011	11	1000