

Blade Terminal & Special Purpose Fuses

	PAGE
Blade Terminal And Special Purpose Fuses	
RoHS 257 series, ATO® Fast-Acting Fuse	450
RoHS 297 series, MINI® Fast-Acting Fuse	451
RoHS 997 series, MINI® Fast-Acting 42V Fuse	452
RoHS 299 series, MAXI® Slo-Blo® Fuse	453
RoHS 999 series, MAXI® 42V Slo-Blo® Fuse	454
RoHS 298 series, MEGA® Slo-Blo® Fuse	455
RoHS 498 series, MIDI® Fuse and Fuseholder	456
RoHS 995 series, JCASE® 42V Slo-Blo® Cartridge Fuse	457
RoHS 496 series, Cable Pro® Cable Protector	458
RoHS 242 Barrier Network Fuse	459
RoHS 259 Series Safe-T-Plus Fuse	459
481 Series Alarm Indicating Fuse for Telecom	460
482 Series Alarm Indicating Fuseholder for Telecom	461-462
LVSP Surge Fuse	463-464

Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS ATO® Fuse Fast-Acting Type



Designed and originated by Littelfuse for the automotive industry, the ATO fuse has become the original equipment circuit protection standard for foreign and domestic automobiles and trucks. Readily identifiable and easily replaced, this fuse can be specified for a variety of low voltage electronic applications.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1–40 Amp	100 Hours Minimum
135%	1–2 Amp	.50 sec., Min. ; 600 sec., Max.
	3–40 Amp	.75 sec., Min. ; 600 sec., Max.
200%	1–2 Amp	.10 sec., Min. ; 5 sec., Max.
	3–40 Amp	.15 sec., Min. ; 5 sec., Max.
350%	1–2 Amp	.020 sec., Min. ; 0.5 sec., Max.
	3–40 Amp	.080 sec., Min. ; 0.5 sec., Max.

AGENCY APPROVALS: Listed by Underwriters Laboratories (1–40 amperes). Certified by CSA (3–30 amperes).

DESIGN STANDARDS: U.L. Standard for Automotive Blade Type Fuses. SAE (Society of Automotive Engineers) J1284.

PATENTED

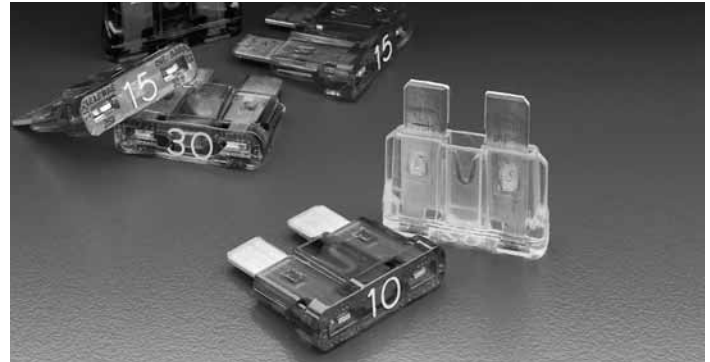
COLOR-CODING: Autofuse® fuses are color-coded for easy amperage identification.

INTERRUPTING RATING:

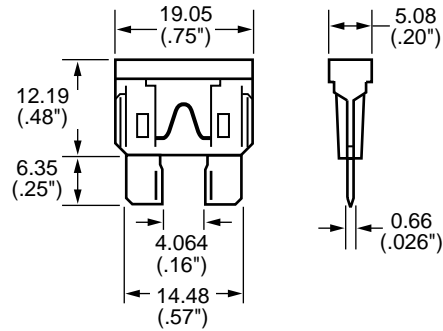
1000A @ 32VDC

ORDERING INFORMATION:

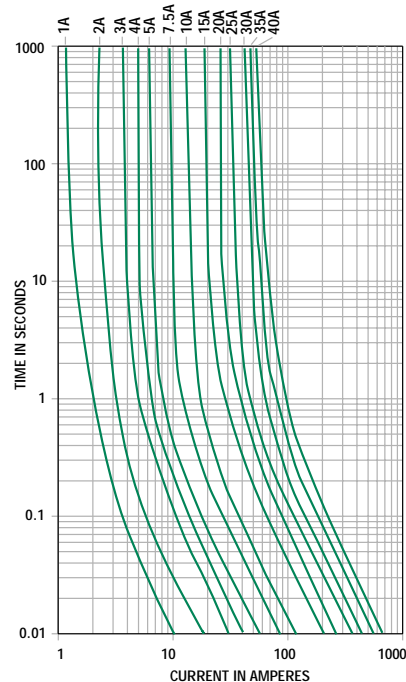
Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
257 001	1	32	Black	0.123	.4
257 002	2	32	Grey	0.050	1.4
257 003	3	32	Violet	0.031	7.4
257 004	4	32	Pink	0.023	14
257 005	5	32	Tan	0.018	26
257 07.5	7½	32	Brown	0.011	60
257 010	10	32	Red	0.0077	115
257 015	15	32	Blue	0.0048	340
257 020	20	32	Yellow	0.0033	520
257 025	25	32	Natural	0.0025	1080
257 030	30	32	Green	0.0019	1510
257 035	35	32	Blue Green	0.0016	2280
257 040	40	32	Orange	0.0014	3310



Reference Dimensions



Average Time Current Curves



Reference pg. 344, ATO® Fuse Clip for P.C. Board mounting.

Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MINI® Fuse Fast-Acting Type



The MINI Fuse is smaller than its predecessor, the ATO® Fuse, which permit more fuses in the same amount of space. More fuses in the same space satisfy the requirement that more circuits be individually fused in newer automobiles.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	100 Hours Minimum
135%	.75 sec., Min. ; 600 sec., Max.
200%	.15 sec., Min. ; 5 sec., Max.
350%	.080 sec., Min. ; .250 sec., Max.
600%	.030 sec., Min. ; .100 sec., Max.

AGENCY APPROVALS: Listed by Underwriters Laboratories.

DESIGN STANDARD: SAE (Society of Automotive Engineers) J2077.

PHYSICAL SPECIFICATIONS:

Materials: Body: Nylon
Terminations: Silver-Plated

PATENTED

INTERRUPTING RATING:

1000A @ 32VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
297 002	2	32	Grey	0.056	2.8
297 003	3	32	Violet	0.034	9.4
297 004	4	32	Pink	0.024	17
297 005	5	32	Tan	0.018	25
297 07.5	7½	32	Brown	0.011	68
297 010	10	32	Red	0.0073	93
297 015	15	32	Blue	0.0045	270
297 020	20	32	Yellow	0.0032	380
297 025	25	32	Natural	0.0023	625
297 030	30	32	Green	0.0018	1130

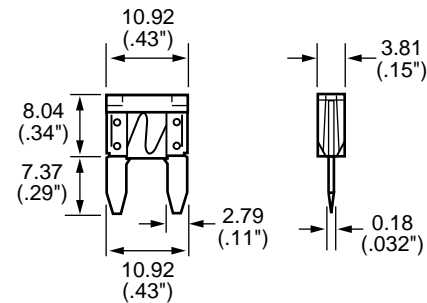
ATO® Fuse, MINI® Fuse, 3AG Fuse Puller

ORDERING INFORMATION:

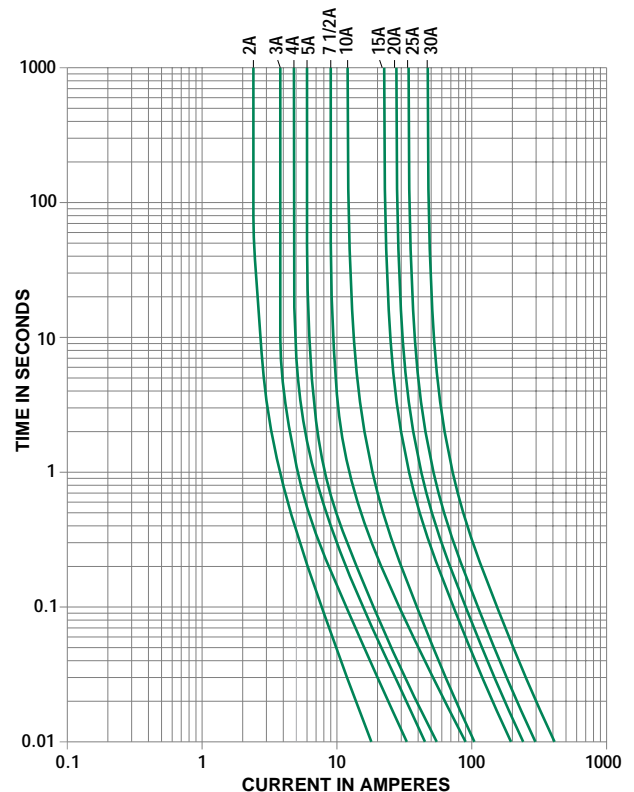
Catalog Number: 097024



Reference Dimensions



Average Time Current Curves



Reference pg. 344 for MINI® Fuse P.C. Board fuseholders.

Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MINI® 42V Fuse Fast-Acting Type

As power demand in vehicles continues to grow, the need for electrical and fuel economy is driving the necessity for a more efficient automotive electrical system.

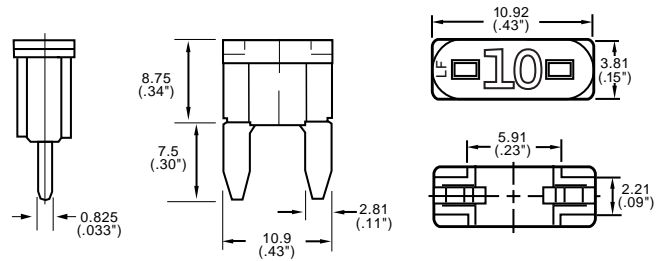
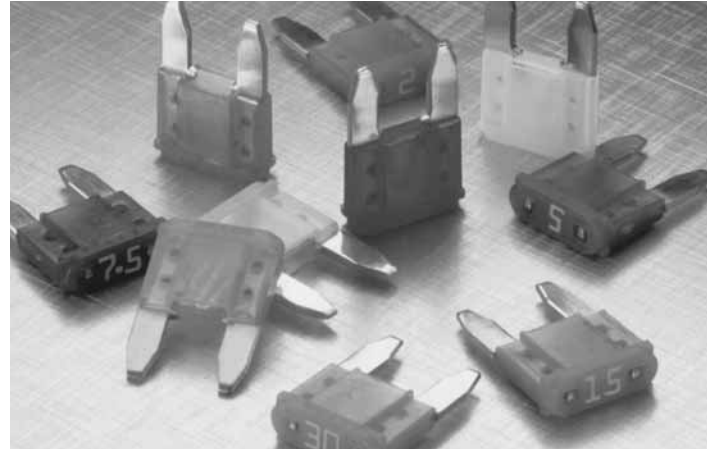
Littelfuse is working closely with major automakers and wire harness suppliers to develop and establish new standards of circuit protection for 42 volt automotive electrical systems.

Advantages include:

- 42 Volt nominal rating / 58 Volt interrupting rating
- Drop-in replacement for MINI® fuse
- Same blade size and spacing as MINI® fuse
- Same Time-Current characteristics as MINI® fuse
- Rejection feature prevents interchangeability with non-compliant 14 Volt fuses

ELECTRICAL CHARACTERISTICS:

% of (Rating)	Opening Time
110%	100 hrs., Minimum
135%	0.75 sec., Min. ; 600 sec., Max.
200%	0.15 sec., Min. ; 5.0 sec., Max.
350%	0.08 sec., Min. ; 0.25 sec., Max.
600%	0.030 sec., Min. ; 0.10 sec., Max.



Interrupting Rating: 1000A @ 58 VDC

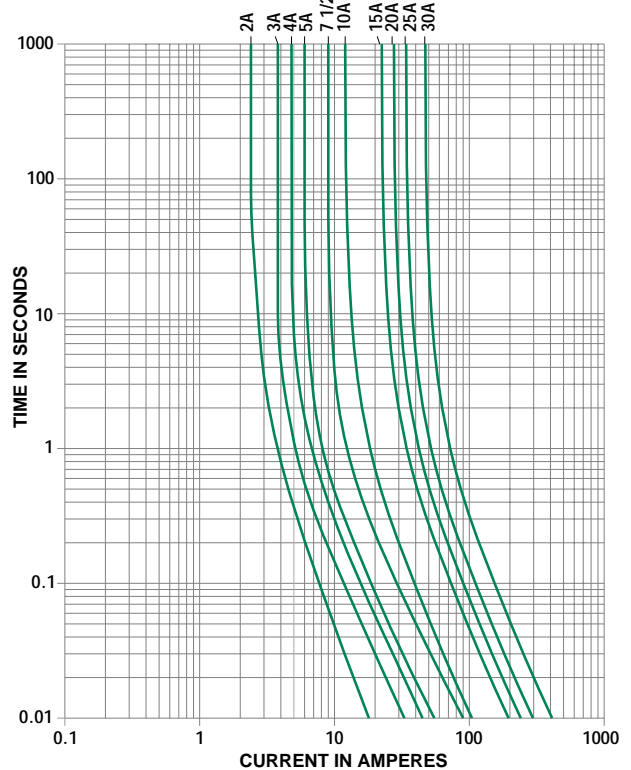
Voltage Rating: 58 VDC

Ambient Temp: -40°C to +125°C

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color	Typical Cold Resistance (Ω)	Typical Voltage Drop at Rated Current (mV)
997 002	2	58	Grey	.056	171
997 003	3	58	Violet	.034	153
997 004	4	58	Pink	.024	121
997 005	5	58	Tan	.018	129
997 07.5	7.5	58	Brown	.011	135
997 010	10	58	Red	.0073	108
997 015	15	58	Blue	.0045	98
997 020	20	58	Yellow	.0032	96
997 025	25	58	Natural	.0023	86
997 030	30	58	Green	.0018	87

Average Time Current Curves



Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MAXI® Fuse Slo-Blo® Type Fuse



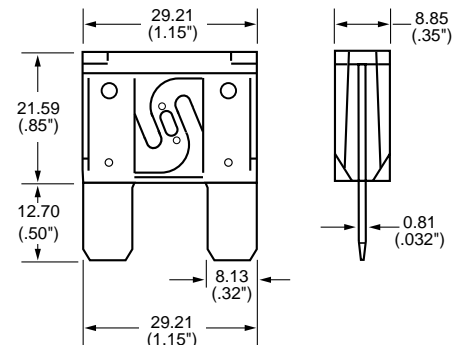
The MAXI Fuse is available in a higher range of amperage ratings (20–80 amperes) than the MINI® Fuse and ATO® Fuse designs and is larger in physical size. A typical MAXI Fuse application in today's more sophisticated automobile circuits is protection of the wiring harness by replacing the fusible wire or fusible link, which is often a plain piece of small wire.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
135%	20–60	60 sec., Min. ; 1800 sec., Max.
	70–80	60 sec., Min. ; 3600 sec., Max.
200%	20	4 sec., Min. ; 20 sec., Max.
	30	6 sec., Min. ; 30 sec., Max.
	40	8 sec., Min. ; 40 sec., Max.
	50	10 sec., Min. ; 50 sec., Max.
	60	15 sec., Min. ; 60 sec., Max.
350%	70–80	4 sec., Min. ; 60 sec., Max.
	20	.7 sec., Min. ; 2 sec., Max.
	30	1 sec., Min. ; 4 sec., Max.
	40	1.4 sec., Min. ; 5 sec., Max.
	50	1.7 sec., Min. ; 6 sec., Max.
600%	60	2 sec., Min. ; 7 sec., Max.
	70–80	.2 sec., Min. ; 2 sec., Max.
	20	.15 sec., Min. ; 1 sec., Max.
600%	30–60	.20 sec., Min. ; 1 sec., Max.
	70–80	.04 sec., Min. ; .15 sec., Max.



Reference Dimensions



AGENCY APPROVALS: Recognized under the components program of Underwriters Laboratories.

DESIGN STANDARD: SAE (Society of Automotive Engineers) J1888.

PHYSICAL SPECIFICATIONS:

Materials: Body: Plastic
Terminations: Silver-Plated

PATENTED

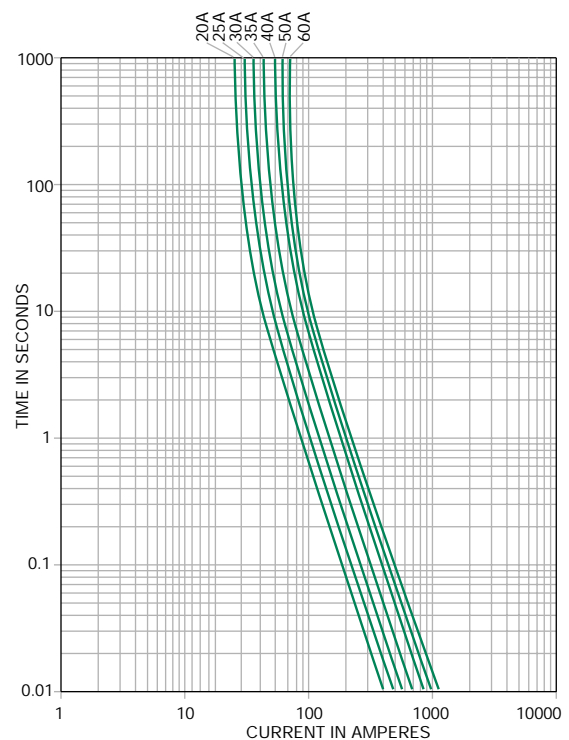
INTERRUPTING RATING:

1000A @ 32VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
299 020	20	32	Yellow	0.0031	1100
299 025	25	32	Gray	0.0024	2087
299 030	30	32	Green	0.0020	4070
299 035	35	32	Brown	0.0017	6032
299 040	40	32	Orange	0.0014	8450
299 050	50	32	Red	0.0011	11300
299 060	60	32	Blue	0.00089	15300
299 070	70	32	Tan	0.00064	6900
299 080	80	32	Natural	0.00054	8800

Average Time Current Curves



Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MAXI® 42V Fuse Slo-Blo® Type Fuse

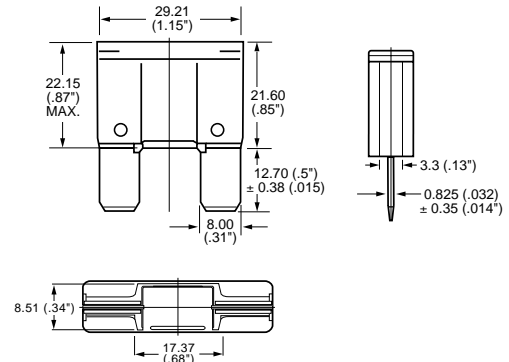
- Same performance characteristics as the industry standard MAXI, but modified to work in the 42 volt environment
- Unique design prevents lower rated fuses from being inserted into the circuit
- Backwards compatibility with 12 volt circuits
- Based on proven technology
- Mates with industry standard terminals

ELECTRICAL CHARACTERISTICS:

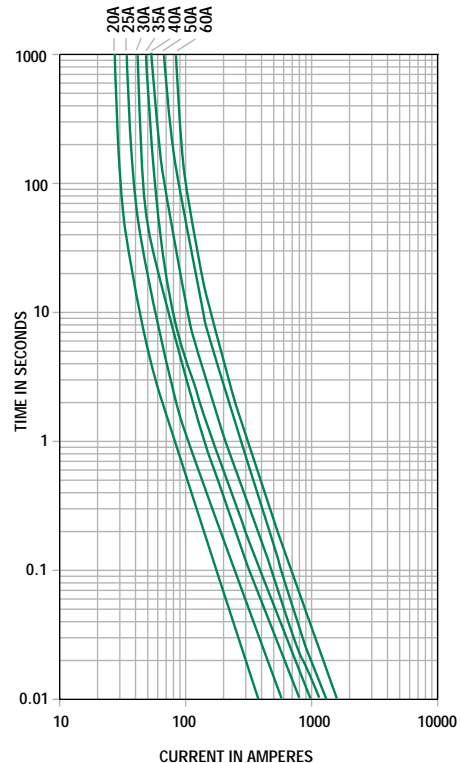
% of Ampere Rating	Ampere Rating	Opening Time
100%	20–80	100 hrs., Min.
135%	20–60	60 sec., Min. ; 1800 sec., Max.
	70–80	60 sec., Min. ; 3600 sec., Max.
200%	20	4 sec., Min. ; 20 sec., Max.
	30	6 sec., Min. ; 30 sec., Max.
	40	8 sec., Min. ; 40 sec., Max.
	50	10 sec., Min. ; 50 sec., Max.
	60	15 sec., Min. ; 60 sec., Max.
350%	70–80	4 sec., Min. ; 60 sec., Max.
	20	.7 sec., Min. ; 2 sec., Max.
	30	1 sec., Min. ; 4 sec., Max.
	40	1.4 sec., Min. ; 5 sec., Max.
	50	1.7 sec., Min. ; 6 sec., Max.
600%	60	2 sec., Min. ; 7 sec., Max.
	70–80	.2 sec., Min. ; 2 sec., Max.
	20	.15 sec., Min. ; 1 sec., Max.
600%	30–60	.20 sec., Min. ; 1 sec., Max.
	70–80	.04 sec., Min. ; .15 sec., Max.



Reference Dimensions



Average Time Current Curves



DESIGN STANDARD: SAE (Society of Automotive Engineers) J1888.

PHYSICAL SPECIFICATIONS:

Materials: Body: Plastic
Terminations: Silver-Plated

PATENTED

INTERRUPTING RATING:

1000A @ 58VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
999 020	20	58	Yellow	0.0031	1100
999 025	25	58	Gray	0.0024	2087
999 030	30	58	Green	0.0020	4070
999 035	35	58	Brown	0.0017	6032
999 040	40	58	Orange	0.0014	8450
999 050	50	58	Red	TBD	TBD
999 060	60	58	Blue	TBD	TBD
999 070	70	58	Tan	TBD	TBD
999 080	80	58	Natural	TBD	TBD

Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MEGA® Slo-Blo® Fuse

Designed for high current circuit protection up to 250 amperes. Ideal for battery and UPS systems requiring ultra-high current protection.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	4 Hours, Minimum
135%	120 sec., Min. ; 1800 sec., Max.
200%	1 sec., Min. ; 15 sec., Max.
350%	0.3 sec., Min. ; 5 sec., Max.
600%	0.1 sec., Min. ; 1 sec., Max.

PHYSICAL SPECIFICATIONS:

Materials: Body: Plastic
Terminations: Copper

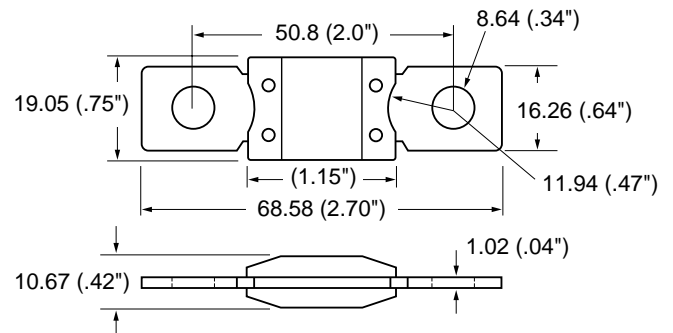
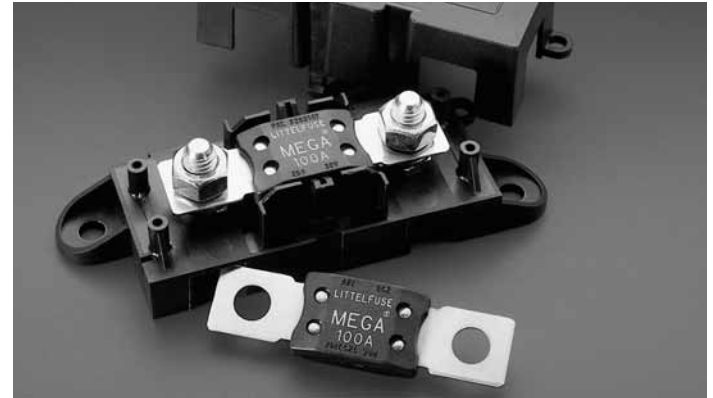
PATENTED

INTERRUPTING RATING:

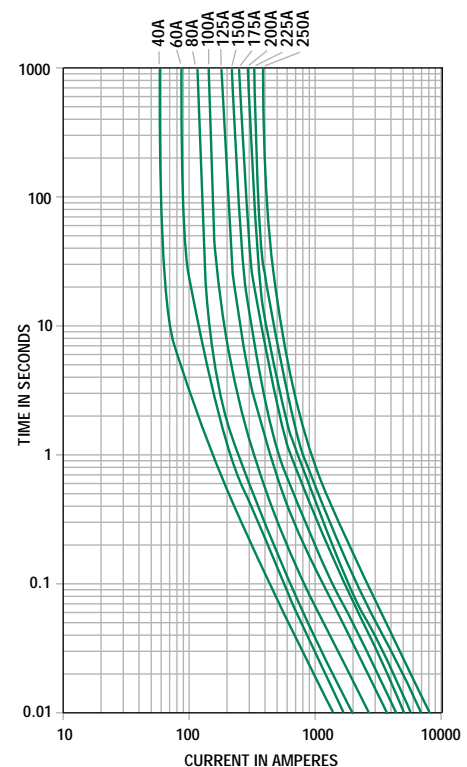
2000A @ 32 VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Stamp Color Code	Nominal Cold Resistance (milliOhms)	Minimum Melting I ² t (A ² Sec.)
298 040	40	32	TBD	TBD	TBD
298 060	60	32	TBD	TBD	TBD
298 080	80	32	TBD	TBD	TBD
298 100	100	32	Yellow	0.55	31100
298 125	125	32	Green	0.43	57800
298 150	150	32	Orange	0.35	100000
298 175	175	32	White	0.27	168000
298 200	200	32	Blue	0.26	204000
298 225	225	32	Tan	0.23	257000
298 250	250	32	Pink	0.19	389000



Average Time Current Curves



MEGA® Fuse Holder

ORDERING INFORMATION:

Catalog Number	Version
0298 1001	Single Holder Assembly
0298 2001	Dual Holder Assembly

Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS MIDI® FUSE



The MIDI® Fuse offers a bolt-on space saving fuse for high current wiring protection and provides time delay characteristics with "Diffusion Pill Technology". The MIDI Fuse was designed and patented by Littelfuse.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	30-125A	100 hours, Minimum
110%	30-125A	4 hours, Minimum
150%	30-125A	90 sec., Min. ; 3600 sec., Max.
200%	30-125A	5 sec., Min. ; 100 sec., Max.
	150-200A	1 sec., Min. ; 15 sec., Max.
300%	30-125A	.5 sec., Min. ; 15 sec., Max.
	150-200A	.3 sec., Min. ; 3 sec., Max.

AGENCY APPROVALS: Recognized under the components program of Underwriters Laboratories.

AGENCY FILE NUMBERS: E71611

INTERRUPTING RATINGS: 1000 amperes at 32 VDC

VOLTAGE RATINGS: 32 VDC

AMBIENT TEMP.: -40°C to +125°C

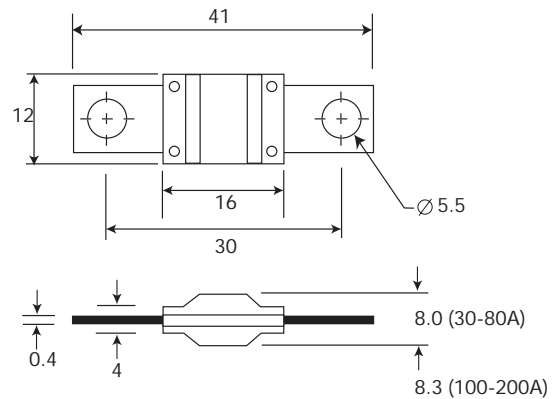
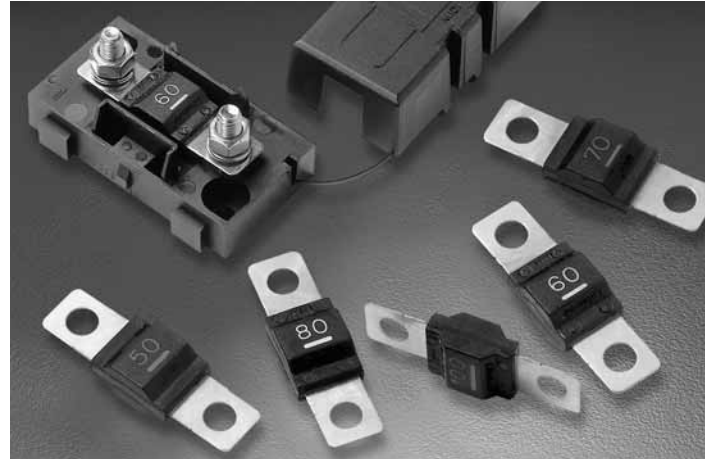
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INTERRUPTING RATING:

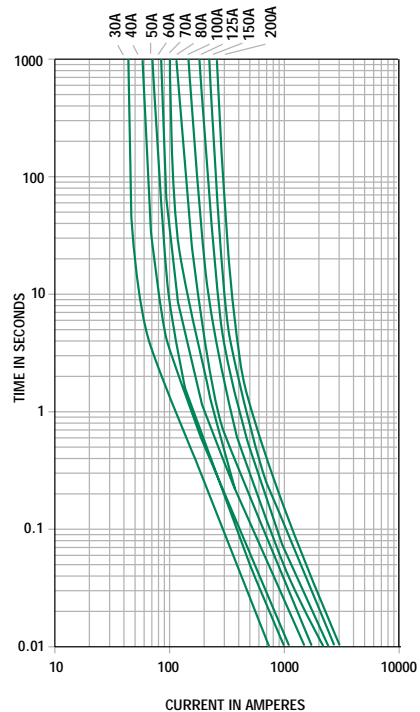
1000A @ 32 VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating (VDC)	Nominal Cold Resistance (mΩ)
0498 030	30	32	2.1
0498 040	40	32	1.3
0498 050	50	32	1.04
0498 060	60	32	0.87
0498 070	70	32	0.72
0498 080	80	32	0.56
0498 100	100	32	0.45
0498 125	125	32	0.40
0498 150	150	32	0.33
0498 200	200	32	0.25



Average Time Current Curves



MIDI® FUSE Fuseholders

ORDERING INFORMATION: Catalog Number 498900.

SPECIFICATIONS:

Electrical: Use with MIDI® Fuses from 30 to 200 amps. (32V)

Body: Glass Filled Thermoplastic

Body Color: Black

Cover With Tether: Glass Filled Thermoplastic

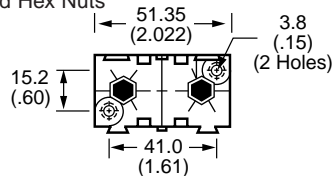
Cover Color: Black

Ambient Temp.: -40°C to +125°C

Fuse Mounting: M5 Threaded Stud and Hex Nuts

Cable Positions: Optional

Side Stackable Feature



Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS JCASE® 42V Slo-Blo® Cartridge Fuse

As power demand in vehicles continues to grow, the need for electrical and fuel economy is driving the necessity for a more efficient automotive electrical system.

Littelfuse is working closely with major automakers and wire harness suppliers to develop and establish new standards of circuit protection for 42 volt automotive electrical systems.

Advantages include:

- 42 Volt nominal rating / 58 Volt interrupting rating
- Unique keying design prevents lower rated fuses from being inserted into the circuit
- Same performance characteristics as industry standard JCASE fuse but modified to work in the 42 volt environment

ELECTRICAL CHARACTERISTICS:

% of (Rating)	Opening Time
110%	100 hrs., Minimum
135%	60 sec., Min. ; 1800 sec., Max.
200%	4.00 sec., Min. ; 60.0 sec., Max.
350%	0.20 sec., Min. ; 17.0 sec., Max.
600%	0.04 sec., Min. ; 1.0 sec., Max.

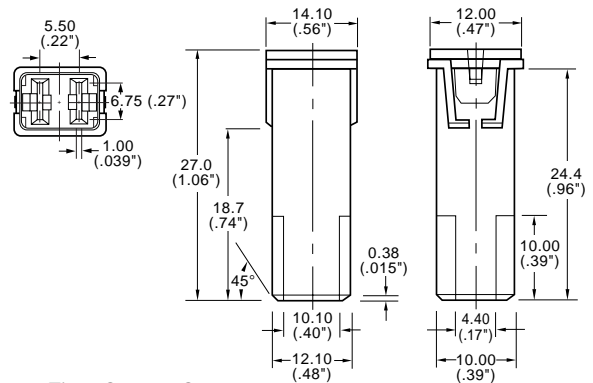
Interrupting Rating: 1000A @ 58 VDC

Voltage Rating: 58 VDC

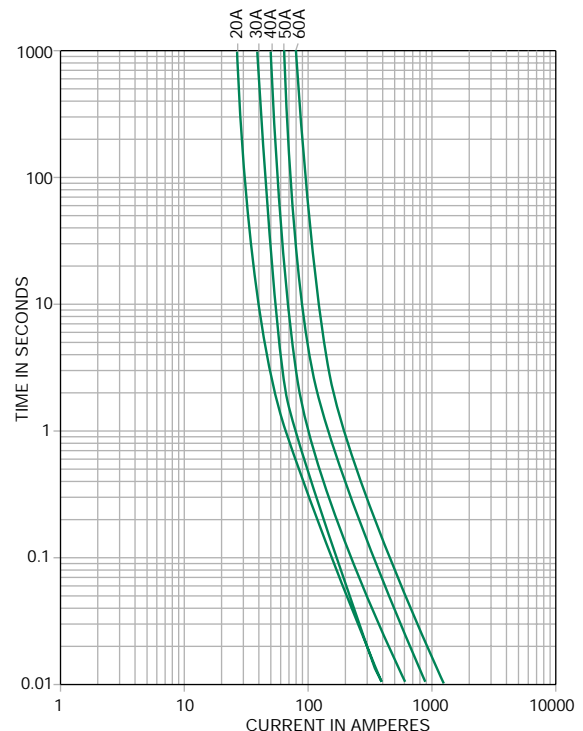
Ambient Temp: -40°C to +125°C

ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color	Typical Voltage Drop at Rated Current (mV)	Nominal Cold Resistance (Ω)
995 020	20	58	Blue	125	.00486
995 025	25	58	Natural	120	.00328
995 030	30	58	Pink	115	.00245
995 040	40	58	Green	115	.00152
995 050	50	58	Red	115	.00118
995 060	60	58	Yellow	115	.00095



Average Time Current Cur ves



Blade Terminal & Special Purpose Fuses

Low Voltage

RoHS Cable Pro® Cable Protector 496 Series



ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	100 hours, Minimum
135%	120 sec., Min. ; 1800 sec., Max.
200%	10 sec., Min. ; 300sec., Max.
350%	1 sec., Min. ; 15 sec., Max.
600%	0.3 sec., Min. ; 5 sec., Max.

CABLE TYPE: SAE J1127(4 & 6 AWG) & SAE J1128(8 AWG).

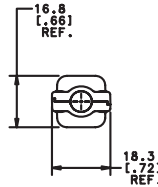
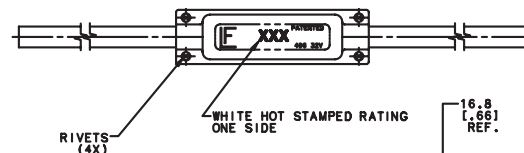
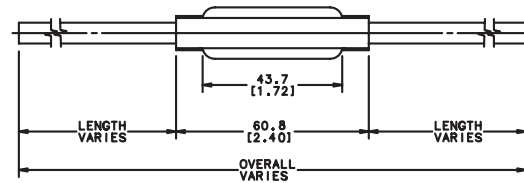
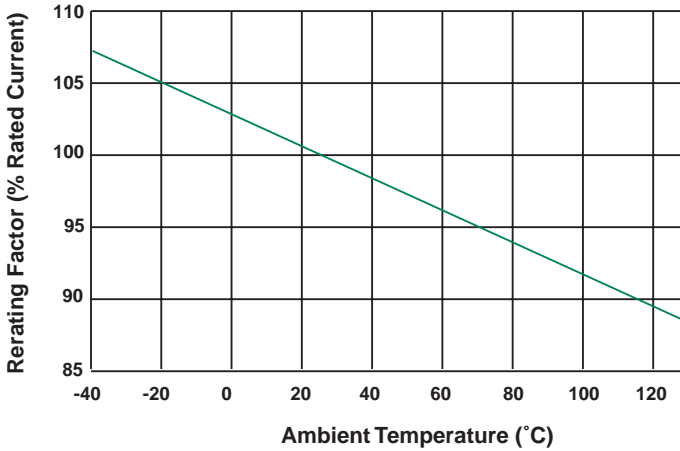
INTERRUPTING RATINGS: 2000 amperes @ 32 VDC

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature Range: -40°C to +125°C



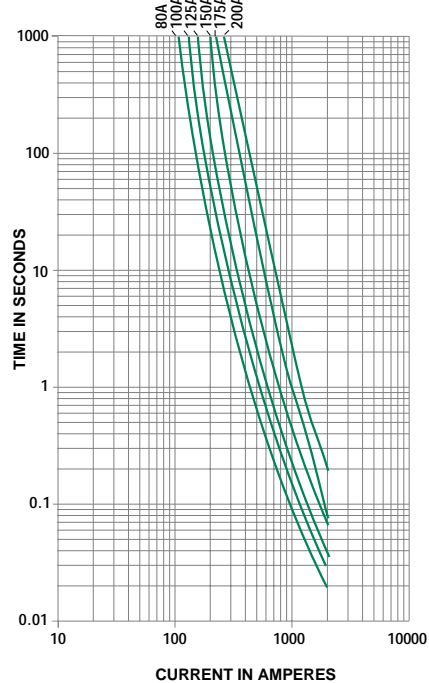
Temperature Derating Curve



ORDERING INFORMATION:

Catalog Number	Ampere Rating	Wire Size	Typical Voltage Drop at Rated Current (mV)*	Nominal Cold Resistance (mΩ)*
0496 080	80	8mm ² (8AWG)	117.0	1.188
0496 100	100	8mm ² (8AWG)	119.9	0.937
0496 125	125	13mm ² (6AWG)	104.6	0.697
0496 150	150	19mm ² (4AWG)	102.1	0.555
0496 175	175	19mm ² (4AWG)	105.4	0.473
0496 200	200	19mm ² (4AWG)	97.6	0.374
0496 060	60	5mm ² (10AWG)	132.8	1.770

* NOMINAL COLD RESISTANCE AND TYPICAL VOLTAGE DROP AT RATED CURRENT IS MEASURED AT THE ENDS OF TWO 80.0mm(3.15") CABLES.



Blade Terminal & Special Purpose Fuses

Hazardous Area Fuses

RoHS Barrier Network Fuse 242 Series



- Meets Barrier Network Standards (EN50020) for hazardous applications.
- High interrupting rating. Meets the 1500A minimum.
- Available in both axial lead and surface mount.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
110%	4 hours, Minimum
300%	10 seconds, Maximum
1000%	0.002 seconds, Maximum

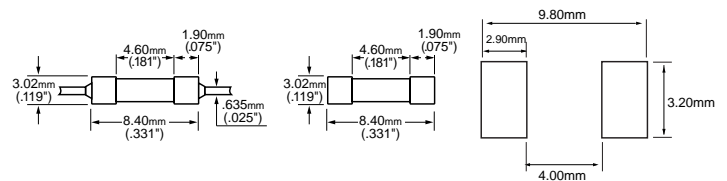
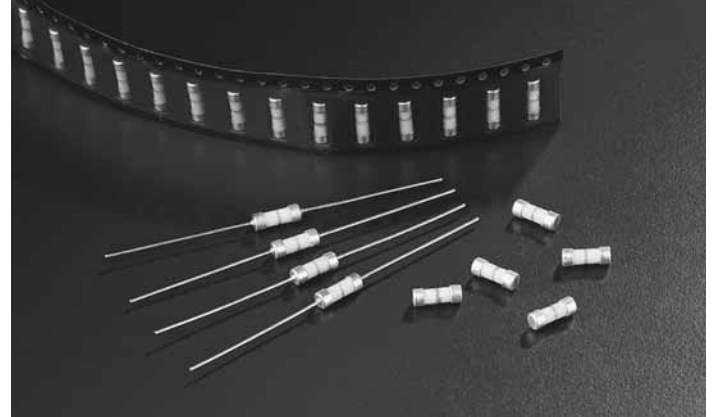
AGENCY APPROVALS: Recognized under the components program of Underwriters Laboratories.

INTERRUPTING RATINGS: 4000 amperes at 250VAC/VDC

PACKAGING (500 pcs): For surface mount version add packaging suffix UR. For Axial Leaded version add packaging suffix UA. For Axial Leaded version, taped add packaging suffix UAT1.

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Color Coding	Nominal Resistance Cold Ohms	Nominal Melting I ² t A ² Sec.
0242.050	.050	Red	11.34	0.000103
0242.080	.080	Green	8.19	0.000214
0242.100	.100	Blue	3.60	0.000977
0242.160	.160	Violet	3.00	0.00157
0242.200	.200	Brown	2.68	0.0038
0242.250	.250	Black	1.6	0.00579



RoHS Safe-T-Plus Fuse 259 Series

- Designed to allow equipment to meet "Intrinsically Safe" certification for applications in gas plants, petrochemical and processing industries where there is a danger of gas explosion from faulty circuits.
- Hermetically sealed.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	4 hours, Minimum
200%	5 seconds, Maximum

AGENCY APPROVALS: Meets CENELEC EN500014 to 039 and IEC 60079-11.

INTERRUPTING RATINGS:

50 amperes at 125 VAC

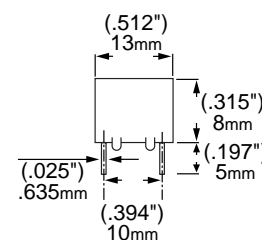
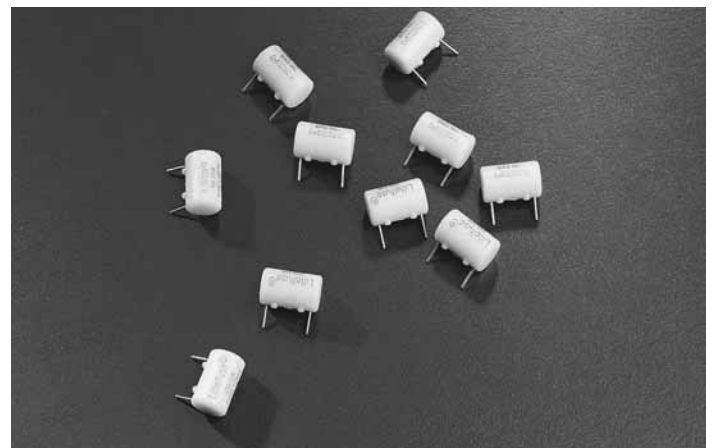
300 amperes at 125 VDC

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Drop	Maximum Resistance Cold Ohms	Nominal Melting I ² t A ² Sec.
0259.062	.062	2.1	8.1	0.00016
0259.125	.125	1.3	2.4	0.0012
0259.250	.250	0.83	0.87	0.0095
0259.375	.375	0.81	0.46	0.025
0259.500	.500	0.78	0.32	0.07
0259.750	.750	0.23	0.19	0.062
0259001.	1	0.24	0.14	0.01

Schedule of limitations.

- 1) The fuse must be so mounted that creepage and clearance distances meet the requirements of Table 2 of EN50020 :1977 or Table 4 of EN50020 :1994 (equivalent to IEC 60079-11 4th Edition 1999).
- 2) When used in intrinsically safe apparatus it will be necessary to determine a surface temperature classification for the fuse.



Blade Terminal & Special Purpose Fuses

481 Series Alarm Indicating Fuse



- Ideal for telecommunications and control panel circuits.
- Eliminates down time by immediately pinpointing the blown (open) circuit while triggering LED or audio alarm, while placed in mating holder (482 Series).
- Clear plastic lens option available for additional safety.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Opening Time
100%	10 minutes, Minimum
150%	5 minutes, Maximum

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

AGENCY FILE NUMBERS: UL E71611, CSA LR 29862

INTERRUPTING RATINGS:

- 450 amperes at 60 VDC
- 300 amperes at 125 VAC (up to 20 amperes)
- 300 amperes at 125 VDC (up to 15 amperes)
- 200 amperes at 125 VDC (up to 20 amperes)

ENVIRONMENTAL SPECIFICATION:

Operating Temperature: -55°C to +125°C

PHYSICAL SPECIFICATIONS:

Construction Materials:

- Body: Polyphenylene Sulfide (UL 94V0)
- Terminations: Beryllium Copper/Tin Plated
- Optional Lens: Nylon

PACKAGING SPECIFICATIONS:

Available in five (5) packs or boxes of one hundred (100). When ordering a Five (5) Pack, please add the letter 'V' after the catalog number. When ordering a one hundred (100) piece box, add a 'H'. To order the part with a Protective Lens, add the letters 'XL' after the package code.

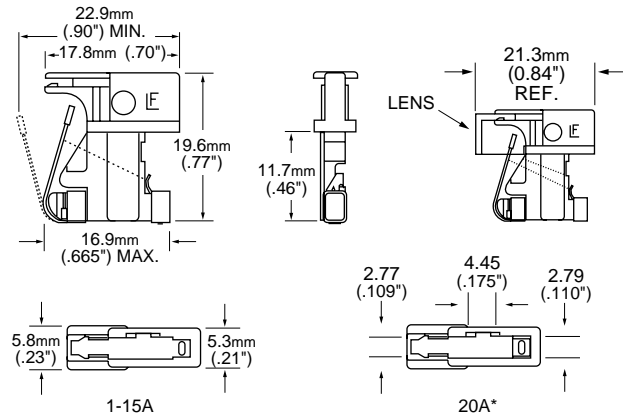
ORDERING INFORMATION:

Catalog Number	Ampere Rating (A)	Voltage Rating	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
0481.180	18/100	125 VAC & 125 VDC	Yellow	6.25	0.00808
0481.200	1/5		Red/Black	5.70	0.0140
0481.250	1/4		Violet	4.20	0.0356
0481.375	3/8		Gray/White	2.00	0.028
0481.500	1/2		Red	1.52	0.139
0481.650	65/100		Black	1.25	0.278
0481.750	3/4		Brown	.980	0.363
0481001.	1		Gray	.665	0.733
04811.33	1 1/3		White	.480	1.58
048101.5	1 1/2		Yellow/White	.385	2.55
0481002.	2		Orange	.120	5.29
048102.5	2 1/2		Orange/White	.0904	9.46
0481003.	3		Blue	.0670	11.2
048103.5	3 1/2		Blue/White	.0415	10.5
0481004.	4		Brown/White	.0350	15.4
0481005.	5		Green	.0285	26.2
048107.5	7 1/2		Black/White	.0113	42.8
0481010.	10		Red/White	.00840	115.3
0481012.	12	Green/Yellow	.00660	222.5	
0481015.	15	Red/Blue	.00580	294.22	
0481020.	20*	Green/White	.00394	570.0	
0481000.	Dummy		∅		

*20A Fuseholder must be used. Fuse is keyed to prevent insertion in lower rated holders. 20A Fuseholder is designed to accept all ratings up to 20 amperes.

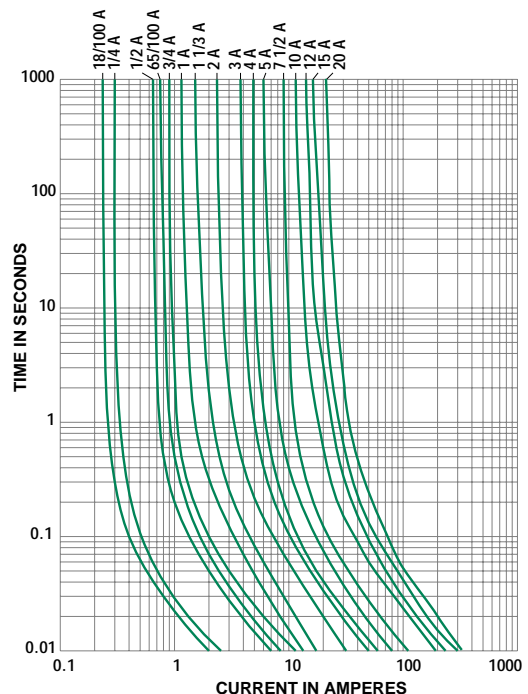


Reference Dimensions:



*20A Fuseholder must be used. Fuse is keyed to prevent insertion in lower rated holders. 20A Fuseholder is designed to accept all ratings up to 20 amperes.

Average Time Current Curves



Blade Terminal & Special Purpose Fuses

482 Series Alarm Indicating Fuseholder

The Alarm Indicating Fuseholder is designed for use with the Littelfuse 481 Alarm Fuse. It is designed to accept other manufacturer's replacement fuses as well.

- Ideal for telecommunications and control panel circuits.

The fuseholder is available in three versions:

PCB Mount: Can be soldered directly to a printed circuit board. Rated up to 15 amperes. Available in single pole or gangable up to 20 poles. Fuseholder is keyed to prevent insertion of 20 ampere fuse.

Panel Mount – 20A: Available in a single pole version rated up to 20 amperes. Large leads for wire attachment.

Panel Mount – 15A: 15 ampere gangable version of fuseholder is keyed to prevent insertion of 20 ampere fuse.

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

AGENCY FILE NUMBERS: UL E14721, CSA LR 29862

SPECIFICATIONS:

PCB Mount and Panel Mount – 15A: Rated at 15 amperes up to 125 VAC/VDC

Body Material: Thermoplastic

Fuse Terminals: Tin-plated Beryllium Copper

Alarm Terminal: Tin-plated Brass

Operating Temperature: -55°C to + 125°C

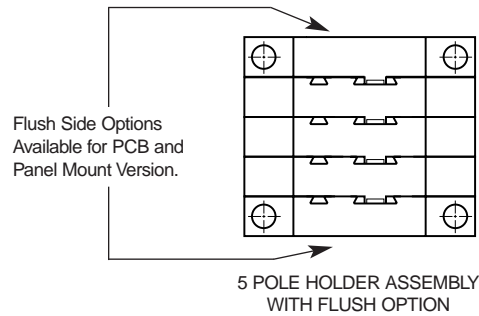
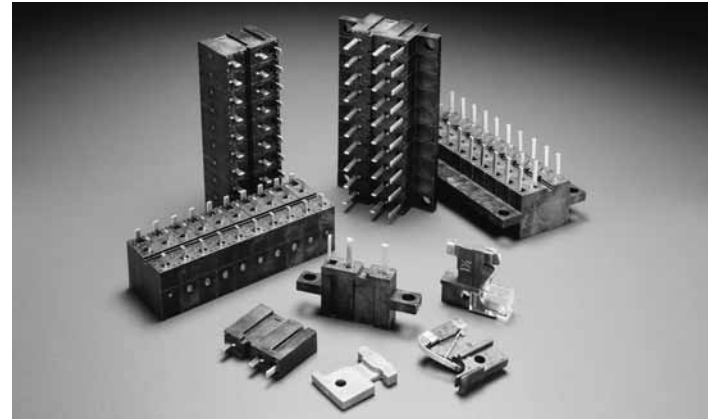
Panel Mount – 20A: Rated at 20 amperes up to 125 VAC/VDC

Body Material: Black Phenolic

Fuse Terminals: Tin-plated Beryllium Copper

Alarm Terminal: Tin-plated Brass

Operating Temperature: -40°C to + 85°C

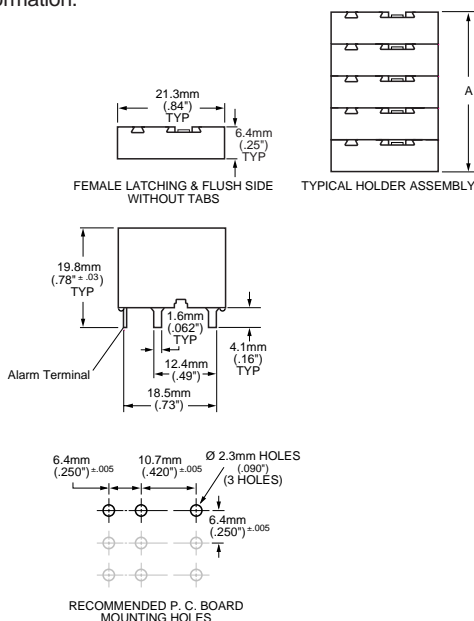


12
BLADE TERMINAL AND SPECIAL PURPOSE FUSES

482 Series PCB Mount Fuseholder



PCB Mount – 15A: 15 ampere gangable version of fuseholder is keyed to prevent insertion of 20 ampere fuse. Please contact Littelfuse for ordering information.



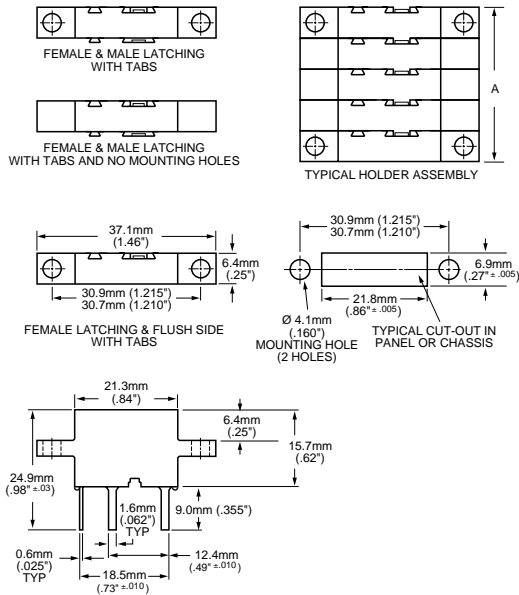
ORDERING INFORMATION: PCB Mount

Catalog Number PCB Mount	Catalog Number PCB Mount Flush	Type	Length (A)
0482 0001ZXB	0482 0001ZXB	1 Pole	6.40mm (.25")
0482 0002ZXB	0482 0002ZXB	2 Pole	12.80mm (.50")
0482 0003ZXB	0482 0003ZXB	3 Pole	19.05mm (.75")
0482 0004ZXB	0482 0004ZXB	4 Pole	25.40mm (1.0")
0482 0005ZXB	0482 0005ZXB	5 Pole	31.75mm (1.25")
0482 0006ZXB	0482 0006ZXB	6 Pole	38.10mm (1.50")
0482 0007ZXB	0482 0007ZXB	7 Pole	44.45mm (1.75")
0482 0008ZXB	0482 0008ZXB	8 Pole	50.80mm (2.00")
0482 0009ZXB	0482 0009ZXB	9 Pole	57.15mm (2.25")
0482 0010ZXB	0482 0010ZXB	10 Pole	63.50mm (2.50")
0482 0011ZXB	0482 0011ZXB	11 Pole	69.85mm (2.75")
0482 0012ZXB	0482 0012ZXB	12 Pole	76.20mm (3.00")
0482 0013ZXB	0482 0013ZXB	13 Pole	82.55mm (3.25")
0482 0014ZXB	0482 0014ZXB	14 Pole	88.90mm (3.50")
0482 0015ZXB	0482 0015ZXB	15 Pole	95.25mm (3.75")
0482 0016ZXB	0482 0016ZXB	16 Pole	101.60mm (4.00")
0482 0017ZXB	0482 0017ZXB	17 Pole	107.95mm (4.25")
0482 0018ZXB	0482 0018ZXB	18 Pole	114.30mm (4.50")
0482 0019ZXB	0482 0019ZXB	19 Pole	120.65mm (4.75")
0482 0020ZXB	0482 0020ZXB	20 Pole	127.00mm (5.00")

Blade Terminal & Special Purpose Fuses

482 Series Panel Mount Fuseholder

Panel Mount – 15A: 15 ampere gangable version of fuseholder is keyed to prevent insertion of 20 ampere fuse. Please contact Littelfuse for ordering information.



ORDERING INFORMATION: Panel Mount –15A

Catalog Number Panel Mount	Catalog Number Panel Mount Flush	Type	Length (A)
0482 0001ZXP	0482 0001ZXPF	1 Pole	6.40mm (.25")
0482 0002ZXP	0482 0002ZXPF	2 Pole	12.80mm (.50")
0482 0003ZXP	0482 0003ZXPF	3 Pole	19.05mm (.75")
0482 0004ZXP	0482 0004ZXPF	4 Pole	25.40mm (1.0")
0482 0005ZXP	0482 0005ZXPF	5 Pole	31.75mm (1.25")
0482 0006ZXP	0482 0006ZXPF	6 Pole	38.10mm (1.50")
0482 0007ZXP	0482 0007ZXPF	7 Pole	44.45mm (1.75")
0482 0008ZXP	0482 0008ZXPF	8 Pole	50.80mm (2.00")
0482 0009ZXP	0482 0009ZXPF	9 Pole	57.15mm (2.25")
0482 0010ZXP	0482 0010ZXPF	10 Pole	63.50mm (2.50")
0482 0011ZXP	0482 0011ZXPF	11 Pole	69.85mm (2.75")
0482 0012ZXP	0482 0012ZXPF	12 Pole	76.20mm (3.00")
0482 0013ZXP	0482 0013ZXPF	13 Pole	82.55mm (3.25")
0482 0014ZXP	0482 0014ZXPF	14 Pole	88.90mm (3.50")
0482 0015ZXP	0482 0015ZXPF	15 Pole	95.25mm (3.75")
0482 0016ZXP	0482 0016ZXPF	16 Pole	101.60mm (4.00")
0482 0017ZXP	0482 0017ZXPF	17 Pole	107.95mm (4.25")
0482 0018ZXP	0482 0018ZXPF	18 Pole	114.30mm (4.50")
0482 0019ZXP	0482 0019ZXPF	19 Pole	120.65mm (4.75")
0482 0020ZXP	0482 0020ZXPF	20 Pole	127.00mm (5.00")

482 Series 20A Panel Mount Fuseholder

Panel Mount – 20A: The 20 ampere single pole holder is designed to accept all fuse ratings up to 20 amperes. 20 ampere fuseholders should be spaced 12.7mm (0.50) apart when loaded to maximum capacity, center to center to insure proper heat dissipation under normal operation. Heatsinking may be required for operation in higher ambient temperatures or alternate configurations.

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

AGENCY FILE NUMBERS: UL E71611, CSA LR 29862

SPECIFICATIONS:

Panel Mount – 20A: Rated at 20 amperes up to 125 VAC/VDC

Body Material: Black Phenolic

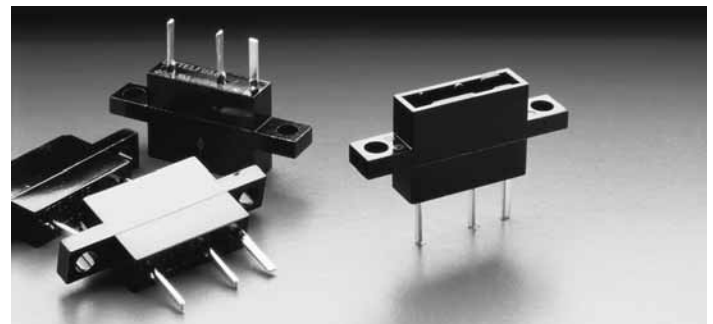
Fuse Terminals: Tin-plated Copper Alloy

Alarm Terminal: Tin-plated Copper Alloy

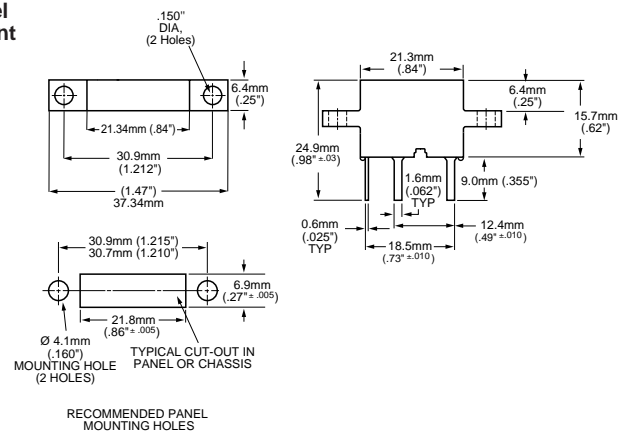
Operating Temperature: -40° to +85°C

ORDERING INFORMATION:

CATALOG NUMBER: 0482 2001ZXP



Panel Mount



* For additional terminal lengths please contact Littelfuse.

Blade Terminal & Special Purpose Fuses

Surge Fuses

LVSP Series Surge Fuse



The Littelfuse Varistor Surge Protection (LVSP) Fuses are intended for the protection of TVSS products. The LVSP Series has been designed to survive the 8x20µs lightning surges described in various Standards (UL1449, IEC61000-4-5 & IEEE C62.41) without opening. This allows the TVSS to perform the necessary suppression. The LVSP Series is not rated for continuous current and the ratings are to specific 8x20µs surge capability. The LVSP Series can be used to facilitate TVSS module compliance to UL1449 in permanently connected applications (abnormal overvoltage, unlimited current conditions)

Features:

- Rated at 600 VAC - 200kA I.R.
- Available in Surge Ratings from 5-100kA (8x20µs)
- Very current limiting under AC short-circuit conditions
- Available in Cartridge, Bolt-in and PC board mount versions
- Provides short circuit protection in TVSS Systems and complements the Littelfuse Line of overvoltage products (HA, HB34, TMOV™ and iTMOV™ varistors as well as the AK-10 series TVS diodes)

AGENCY APPROVALS: Recognized under the components program of Underwriters Laboratories for Special Purpose Fuses.

AGENCY FILE NUMBERS: UL E71611

RATINGS: 5-100kA 8x20µs Surge withstand 600VAC 200kA I.R.

APPLICATIONS:

- TVSS Products
- Surge Arrestors

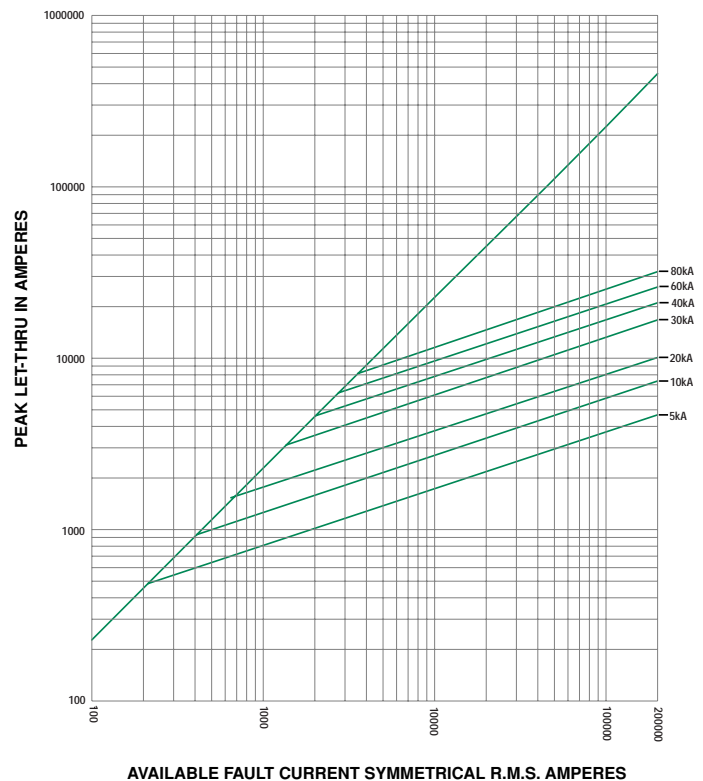
RECOMMENDED FUSE BLOCKS FOR LVSP FUSES:

- **LVSP (5-20)-2**
 - L60030M Series (Block)
 - LPSM Series ("Dead Front" Holder)
- **LVSP (30-100)-2**
 - LJ60030 Series (Block)
 - LPSJ30 ("Dead Front" Holder)

ORDERING INFORMATION:

Catalog Number	8x20µs Surge Rating	Nominal Melting I ² t A ² Sec	Nominal Clearing I ² t A ² Sec	I _{peak} @ 100kA, 60Hz (A)
LVSP 5	5,000	359	981	3,700
LVSP 10	10,000	1,300	3,210	5,823
LVSP 15	15,000	3,267	8,235	7,765
LVSP 20	20,000	4,940	11,710	8,135
LVSP 30	30,000	11,950	35,325	12,478
LVSP 40	40,000	20,550	61,700	15,250
LVSP 40P	40,000	9,975	55,854	17,300
LVSP 60	60,000	39,240	145,566	19,604
LVSP 80	80,000	75,000	254,000	24,600
LVSP 100	100,000	Contact Factory		

*Contact the factory for additional rating or configuration availability



Blade Terminal & Special Purpose Fuses

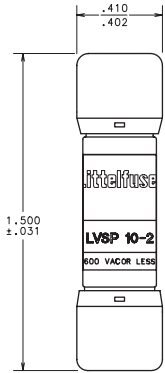
Surge Fuses

LVSP Series Surge Fuse

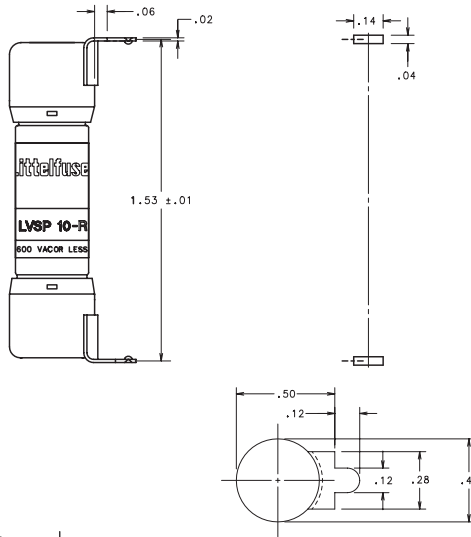


Reference Dimensions:

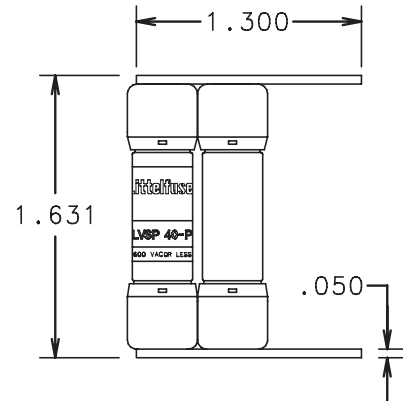
LVSP (5-20)-2



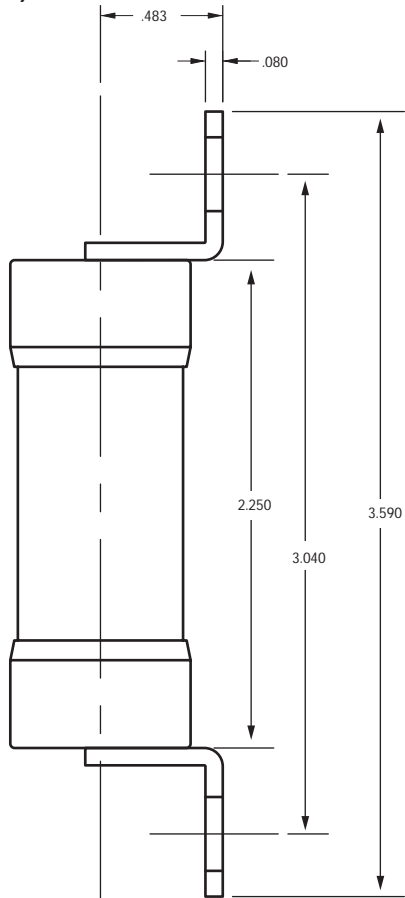
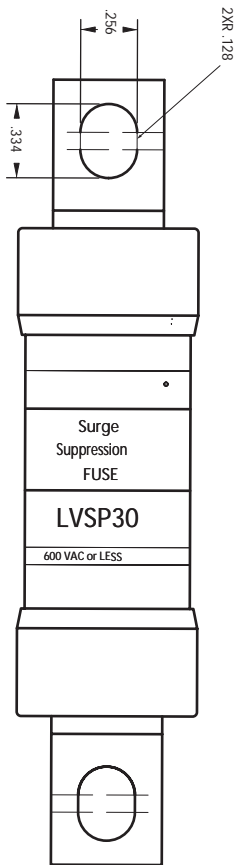
LVSP (5-20)-R



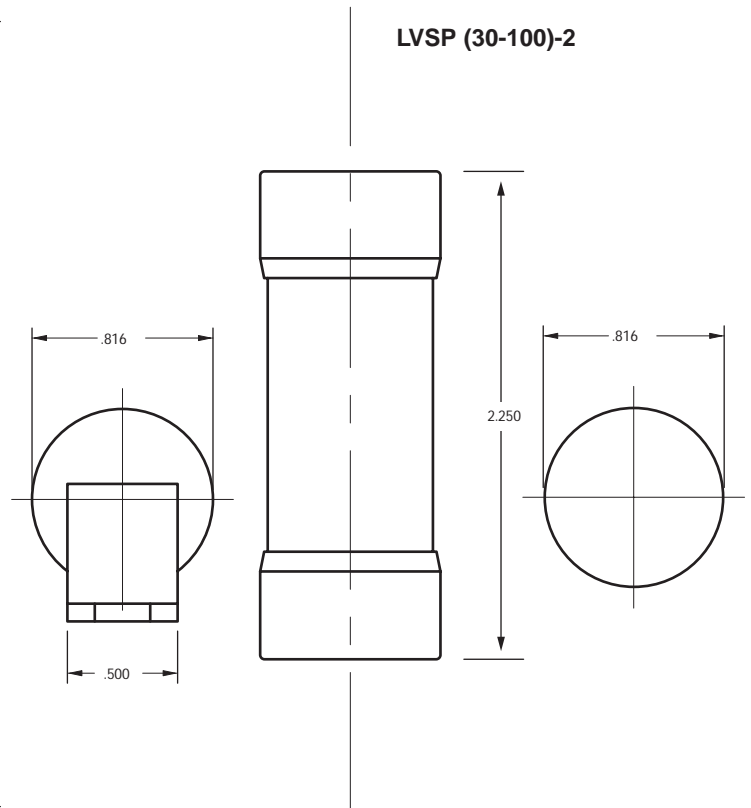
LVSP40P



LVSP (30-100)



LVSP (30-100)-2



Blade Terminal & Special Purpose Fuses

Notes and Drawings

