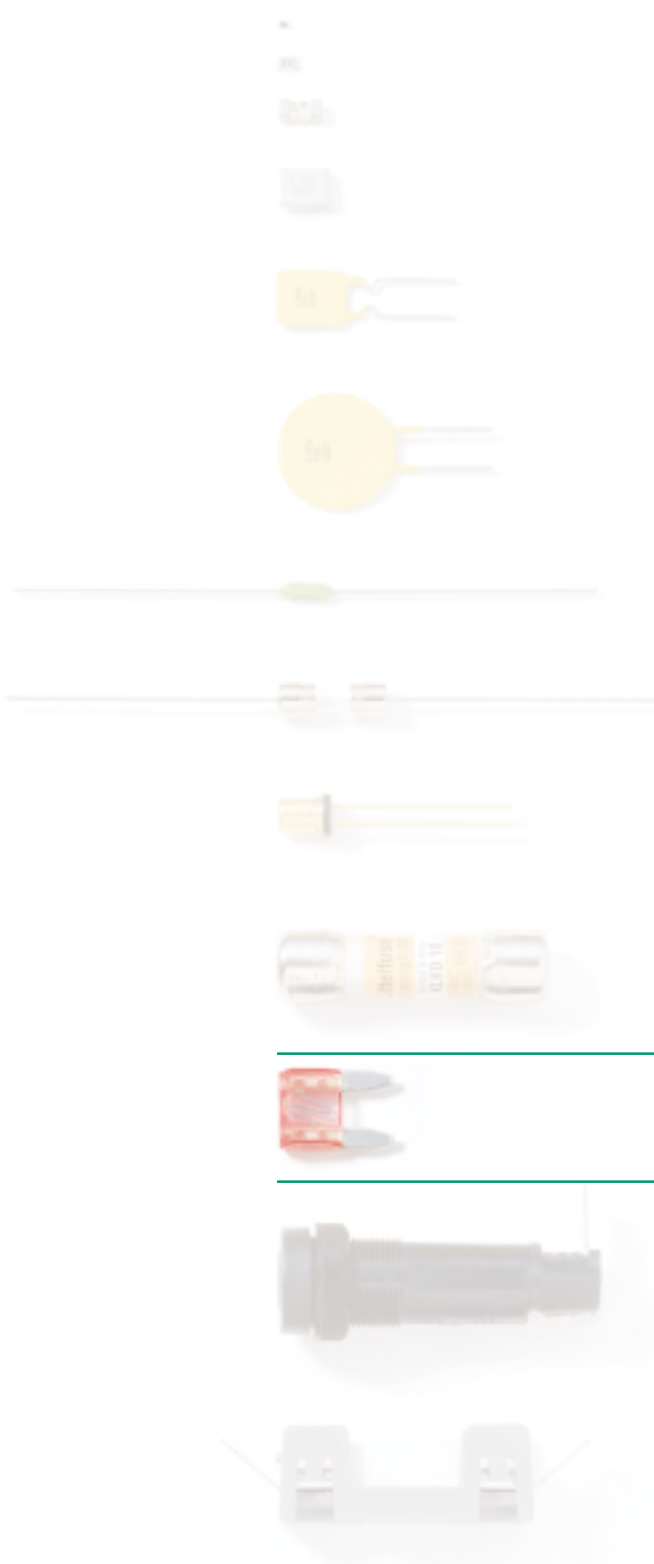


BLADE TERMINAL AND SPECIAL PURPOSE FUSES



LOW VOLTAGE

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

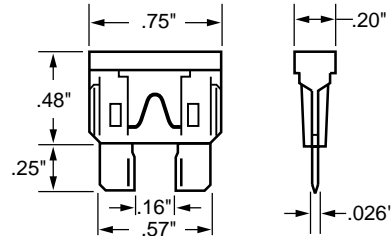
COLOR-CODING: Autofuse® fuses are color-coded for easy amperage identification.

ORDERING INFORMATION:

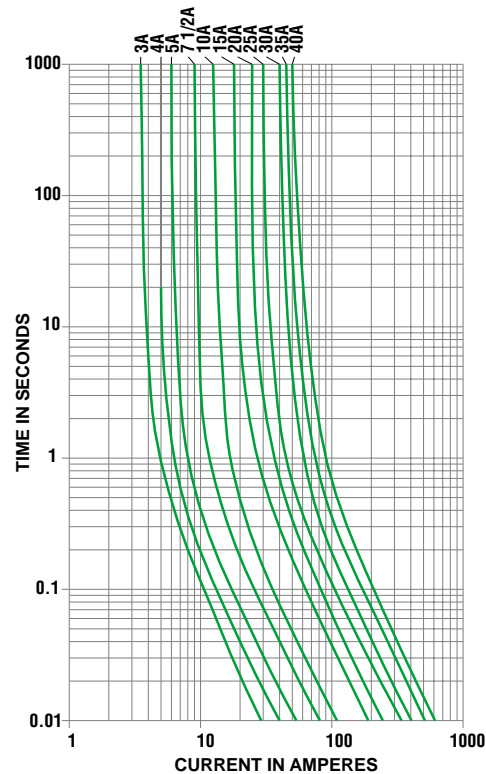
Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Body Color Code	Nominal Cold Resistance Ohms	Minimum Melting I ² t (A ² Sec.)
257 001	1	32	Black	0.123	.4
257 002	2	32	Grey	0.050	1.4
257 003	3	32	Violet	0.031	7.4
257 004	4	32	Pink	0.023	14
257 005	5	32	Tan	0.018	26
257 07.5	7½	32	Brown	0.011	60
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. 96, ATO® Fuse Clip for P.C. Board mounting.

LOW VOLTAGE

MINI® Fuse Fast-Acting Type



The MINI® Fuse is smaller than its predecessor, the ATO® or AUTOFuse® fuses, 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: Plastic
Terminations: Silver-Plated

PATENTED

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

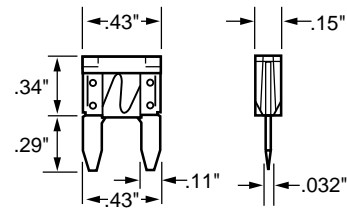
ATO® Fuse, MINI® Fuse, 3AG Fuse Puller

ORDERING INFORMATION:

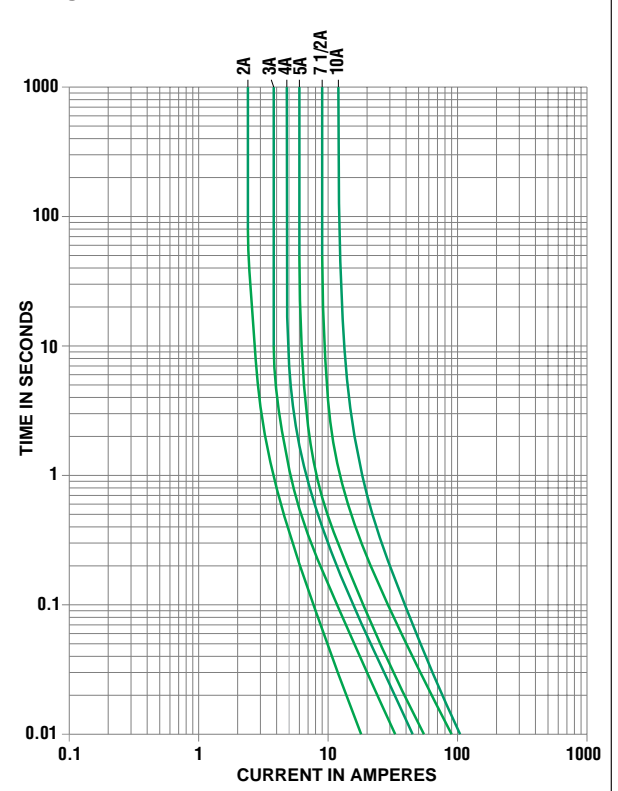
Catalog Number: 097024



Reference Dimensions



Average Time Current Curves



Reference pg. 86 for MINI® Fuse P.C. Board fuseholders.

LOW VOLTAGE

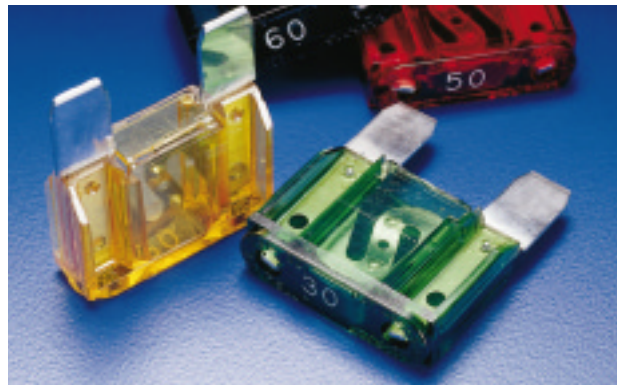
MAXI™ Fuse Slo-Blo® Type Fuse



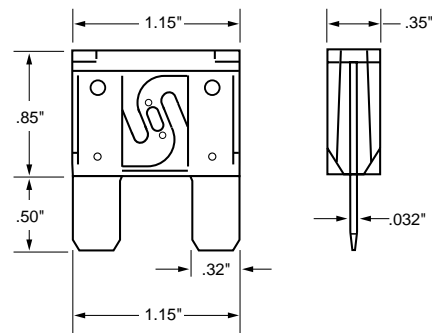
The MAXI™ Fuse is available in a higher range of amperage ratings (20–80 amperes) than the MINI® Fuse and AUTOFUSE® Fuse designs and is larger in physical size. A typical MAXI™ Fuse application in today's more sophisticated automobile circuits is protection of the wiring harness by replacing the fusible 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.
	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 (20–60 amperes).

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

PHYSICAL SPECIFICATIONS:

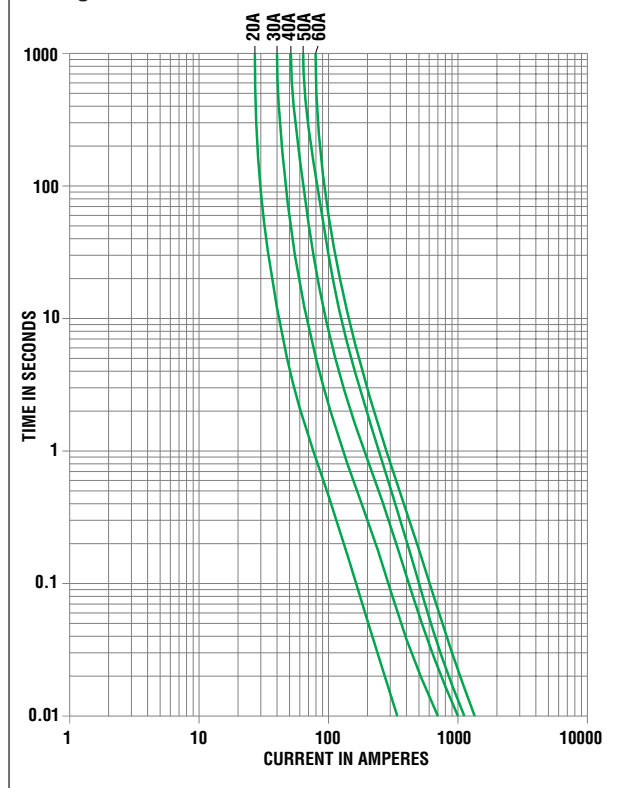
Materials: Body: Plastic
Terminations: Silver-Plated

PATENTED

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	1.71	2087
299 030	30	32	Green	0.0020	4070
299 035	35	32	Brown	2.39	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	0.00069	6900
299 080	80	32	Natural	0.00059	8800

Average Time Current Curves



MEGA® Fuse Fast-Acting Type

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
110%	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.

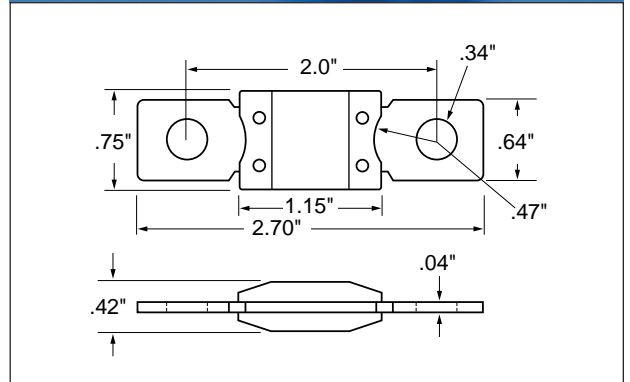
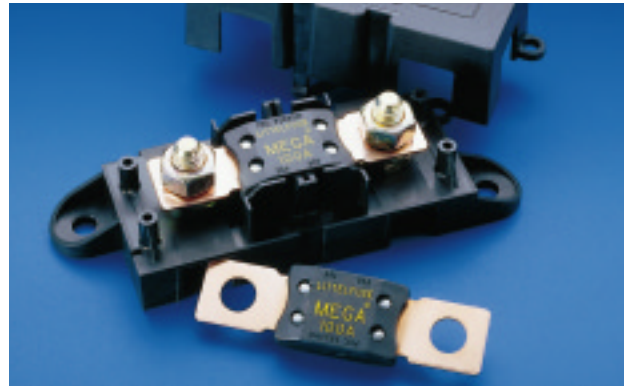
PHYSICAL SPECIFICATIONS:

Materials: Body: Plastic
Terminations: Copper

PATENTED

ORDERING INFORMATION:

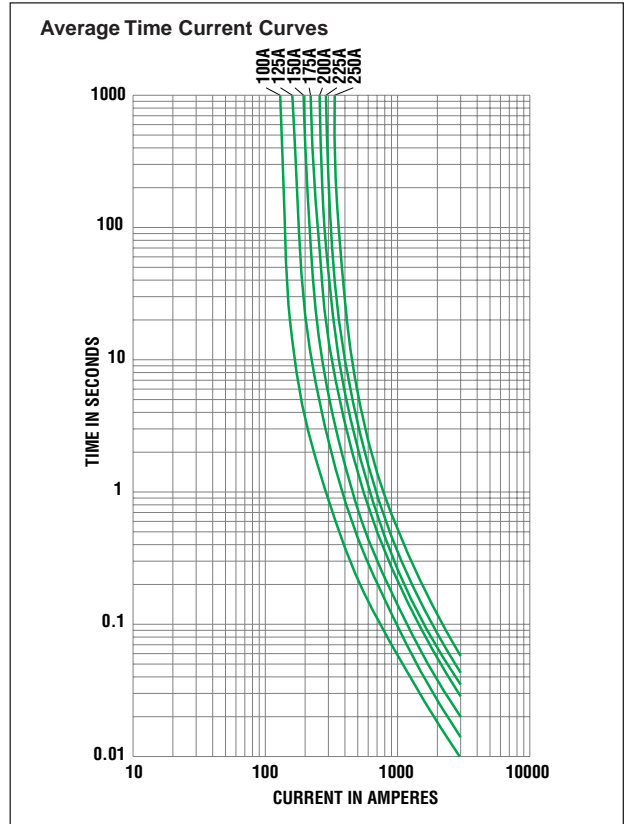
Catalog Number	Ampere Rating (A)	Voltage Rating (VDC)	Stamp Color Code	Nominal Cold Resistance (milliOhms)	Minimum Melting I ² t (A ² Sec.)
298 100	100	32	Yellow	0.55	31100
298 125	125	32	Green	0.43	57800
298 150	150	32	Orange	0.35	100000
298 175	175	32	White	0.27	168000
298 200	200	32	Blue	0.26	204000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



MEGA® Fuse Holder

ORDERING INFORMATION:

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



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	Opening Time
100%	100 hours, Minimum
110%	4 hours, Minimum
150%	90 sec., Min. ; 3600 sec., Max.
200%	5 sec., Min. ; 100 sec., Max.
300%	.5 sec., Min. ; 15 sec., Max.

INTERRUPTING RATINGS: 1000 amperes at 32 VDC

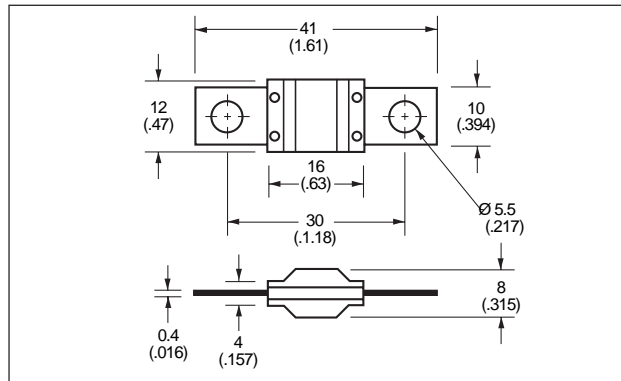
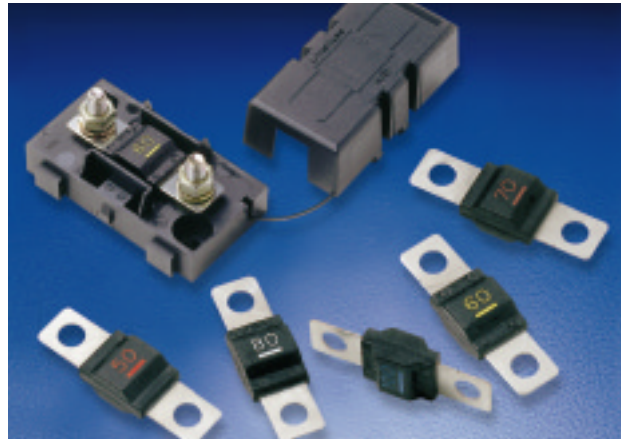
VOLTAGE RATINGS: 32 VDC

AMBIENT TEMP.: -40°C to +125°C

PATENTED:

ORDERING INFORMATION:

Catalog Number	Ampere Rating	Voltage Rating (VDC)	Nominal Cold Resistance (mΩ)
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



MIDI® FUSE Fuseholders

ORDERING INFORMATION:

Catalog Number 498900.

SPECIFICATIONS:

Electrical: Use with MIDI® Fuses from 40 to 150 amps. (32V)

Body: Glass Filled Thermoplastic

Body Color: Black

Cover With Tether: Glass Filled Thermoplastic

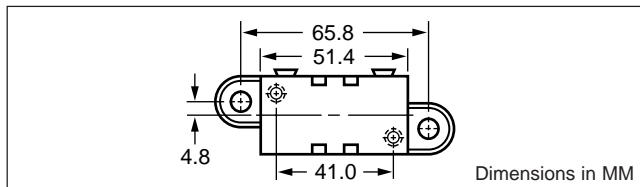
Cover Color: Black

Ambient Temp.: -40°C to +125°C

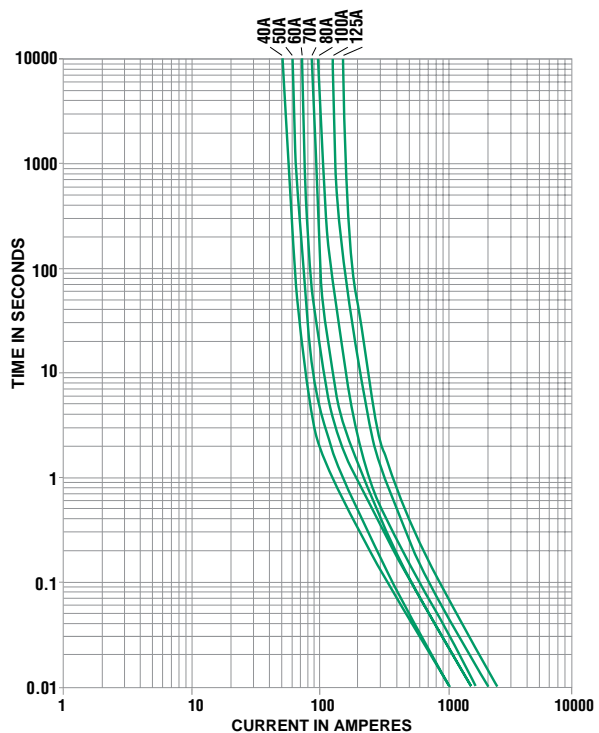
Fuse Mounting: M5 Threaded Stud and Hex Nuts

Cable Positions: Optional

Side Stackable Feature



Average Time Current Curves



481 Alarm Indicating Type 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/VDC

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

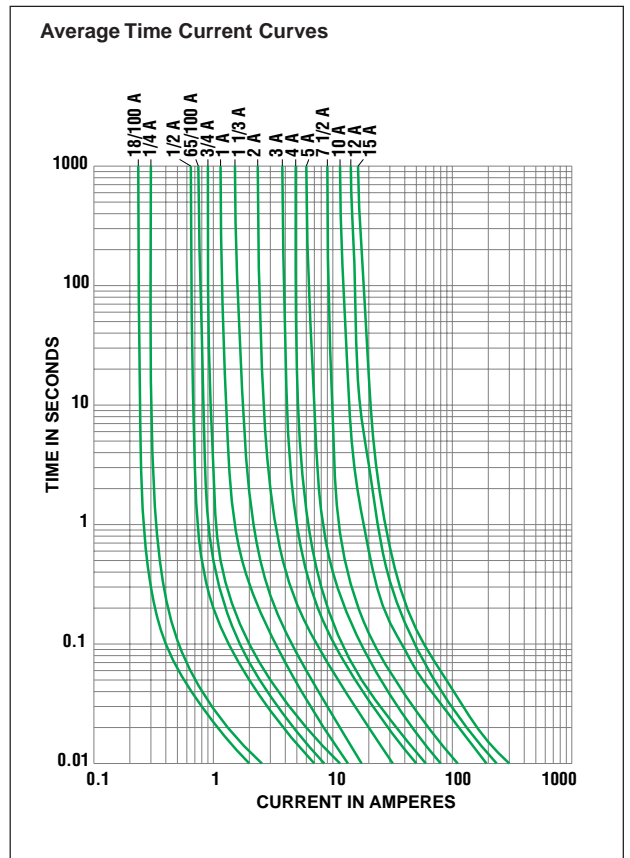
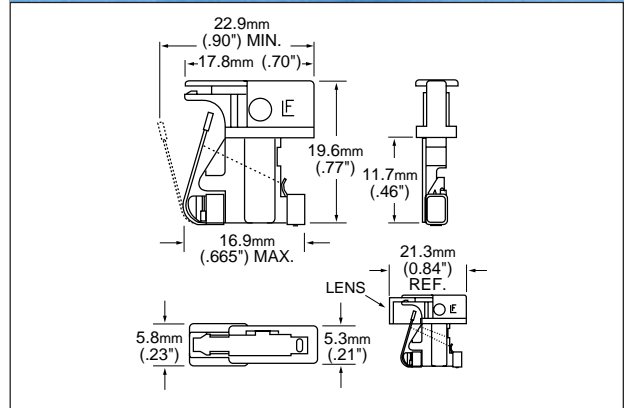
PACKAGING SPECIFICATIONS:

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	Flag Color Code	Voltage Rating
0481.180	18/100	Yellow	125 VAC & 125 VDC
0481.250	1/4	Violet	
0481.500	1/2	Red	
0481.650	65/100	Black	
0481.750	3/4	Brown	
0481001.	1	Gray	
04811.33	1 1/3	White	
048101.5	1 1/2	Yellow/White	
0481002.	2	Orange	
0481003.	3	Blue	
048103.5	3 1/2	Blue/White	
0481004.	4	Brown/White	
0481005.	5	Green	
048107.5	7 1/2	Black/White	
0481010.	10	Red/White	
0481012.	12	Green/Yellow	
0481015.	15	Red/Blue	
0481000.	Dummy	∅	

Contact Littelfuse for nominal cold resistance and melting I²t.



Refer to pg.85 for Alarm Indicating Fuseholder.