Littelfuse®

Expertise Applied | Answers Delivered




# AUTOMOTIVE AFTERMARKET CIRCUIT PROTECTION CATALOG



# AFTERMARKET

## Genuine OEM Circuit Protection Products

## Circuit Protection Today

### An overview of today's fuse market . . .

- New vehicles contain 90 to 150 fuses throughout the vehicle in 3 to 4 different fuse blocks. For example, the BMW 750il uses 148 fuses.
- High amperage products — MAXI, MEGA, MIDI, PAL and JCASE fuses — make up 1 out of every 5 fuses in new vehicles.
- The past decade has produced more automotive circuit protection devices than the entire history of the industry.
- Fuse and circuit breaker applications have grown by 400% in the past 10 years.
- Glass fuses have not been used as a primary original equipment circuit protection device since 1981. Unit movement has been steadily declining, although glass fuses are used in many accessory applications.

Littelfuse partners with every major automotive and heavy-duty OEM. That is why more than 95% of domestic and 70% of foreign new vehicles contain Littelfuse fuses. (Your Customers and Installers will have a Littelfuse fuse in their hand when they need a source to replace a fuse.) Littelfuse has introduced every new fuse in the industry for the past three decades, starting with the ATO blade fuse. Littelfuse holds more than 130 patents on circuit protection devices, more than all the other fuse manufacturers in the world combined. Other fuse manufacturers are licensed by Littelfuse to utilize its product designs and trademarks.

## What is Driving the Circuit Protection Market?

The Circuit Protection market is experiencing accelerated growth caused by a combination of powerful forces driving the market. There has never been a better time to invest in the distribution of the Circuit Protection category.

- **One Wire — One Fuse Protection Trend:** Auto manufacturers are moving towards protecting every wire in the vehicle.
- **More Power Consumption:** Vehicles are consuming power at higher amperages than ever before, and manufacturers are now protecting high amp applications, such as the alternator, with MEGA, MIDI, PAL, JCASE and MAXI fuses.
- **Space & Weight Efficiency:** As vehicle designs get more complex, fuses must get smaller so more fuses can fit in the same amount of space.
- **Greater Diversity of Fuses:** Vehicles contain more fuses than ever before, so Aftermarket Customers and Installers are requiring a greater variety of circuit protection devices in their displays, assortments and merchandisers.
- **More On-Board Electronics:** Auto manufacturers and Aftermarket suppliers are offering a broader range of on-board components like cellular phones, CD players, Bluetooth, navigation, alarm systems and remote starters which require circuit protection for installation and replacement.
- **New Market Niches:** The increased demand in circuit protection is offering current channels of distribution new marketing opportunities in the Fast Lube, Warehouse Club and Electrical Accessories Installer channels or any outlet stocking electrical replacement parts.
- **Longer Vehicle Life:** The life expectancy of cars is increasing to 20+ years. This results in more miles driven and wiring that is aging, leading to more blown fuses that need to be replaced.
- **Easier Access to Fuse Blocks:** Auto manufacturers have moved fuse blocks into the passenger compartments, e.g. glove box, dashboard and trunk, making it easier for DIY replacement. Fuseblocks are also better marked for easier identification of the proper circuit.
- **Infotainment**: The increasing use of video and other new electronics in vehicles have challenged designers to protect even more sensitive automotive electronics. New technologies in circuit protection and fuse box design eliminate transient surges that can damage vehicle equipment.

## The Future of Circuit Protection

Littelfuse's new product development process is based on practical innovations designed around the needs of the customer. The circuit protection products of the future will offer greater features to protect increasingly complex electrical systems, meet the booming demand for on-board electronics and make the Circuit Protection category a continuously stronger part of the Automotive Aftermarket.

Here is a glimpse of Littelfuse's vision of circuit protection for tomorrow . . .

- Fuse count per vehicle to grow each year.
- Increased need for higher amp protection with JCASE and bolt-on devices like MEGA and MIDI fuses.
- Greater need for a broader range of fuse blocks and fuseholders, testers and pullers, fuse kits and assortments and creative merchandising systems.
- Greater need for more technical training materials, point of sale education support and more reliable application data.
- More compact fuses such as MINI, Micro and electronic surface mount fuses.
- Smart circuit protection — the vehicle will tell you what fuse needs to be replaced and its location.
- Special circuit protection products designed for electric and alternative fuel vehicles.
- Modular electrical systems that require modular fuseblocks in locations throughout the vehicle like the quarter panels, fender wells, door panels, etc.


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From small beginnings, through decades of innovation in circuit protection, to advancing beyond circuit protection.

Littelfuse 85 YEARS OF EXPERTISE

# A History of Littelfuse Automotive Firsts

For more than 75 years, Littelfuse has been the Circuit Protection manufacturer to achieve the automotive industry's most significant accomplishments, beginning in 1927 by inventing electronic circuit protection technology with the first small fast-acting protective fuse.

**1930** – Automotive fuse introduced by Littelfuse.

**1950** – Littelfuse develops design of industry's first centralized under dash fuseblock.

**1976** – ATO® blade fuse revolutionizes automotive circuit protection.

**1978** – Introduced Value Pak Emergency Fuse Kits offering 8–10 fuses with fuse puller.

**1983** – Littelfuse begins battle with fuse counterfeiters and helps establish a Federal exclusion order prohibiting the importation of look-alike fuses into the United States.

**1986** – U.S. Auto Industry selects the MAXI fuse to replace the commonly used high amp fusible wire and fusible links in under-the-hood electrical harnesses.

**1987** – Littelfuse expands high amp coverage with reliable new line of PAL Auto Links for complete Japanese coverage.

**1988** – Littelfuse develops the ATO® style diode assembly to control surge voltages caused by electromagnetic components.

**1991** – High amp protection MEGA® fuse introduced as the first OEM and Aftermarket fuse rated up to 250 amps.

**1993** – The MINI® diode is introduced to perform omni-directional blocking of current flow in automotive applications.

**1993** – The ATO® resistor assembly is released to adjust and suppress excess voltage in sensitive automotive circuits.

**1993** – Littelfuse becomes the first circuit protection manufacturer to receive ISO 9000 certification.

**1994** – Littelfuse partners with Chrysler and BMW to design and patent the MIDI® fuse for specific applications.

**1994** – MIDI® compact bolt-down automotive fuse introduced for European high amp applications.

**1995** – The MINI® resistor joins the Littelfuse line of Automotive products.

**1995** – Littelfuse introduced Circuit Alert – a blown fuse indicating device for ATO® fuses.

**1995** – Add-A-Circuit fuseholder introduced as new way to add an additional circuit without cutting or splicing.

**1996** – Littelfuse became first circuit protection manufacturer to receive QS 9000 certification.

**1997** – JCASE introduced as compact version of MAXI Fuse for domestic autos beginning in 1998.

**1997** – Littelfuse celebrates 70 years of quality circuit protection innovation.

**1999** – Littelfuse acquires Harris Suppression and its overvoltage technology to compliment it's overcurrent product lines.

**2001** – The patented CablePro® is introduced to replace fuse links in high-current, battery direct applications such as starters or alternators.

**2002** – Littelfuse acquires Semitron Industries, LTD and becomes the only company in the world that can supply all the major circuit protection technologies.

**2004** – Purchases majority ownership of Heinrich Industries AG, including WICKMANN, Pudenz and Efen, to expand European market for automotive and electronic circuit protection

**2006** – Acquires SMARTGLOW® fuse, the first indicated automotive blade type fuse.

**2010** – Opens the High Power Lab, located in Champaign, Illinois, providing customers with product design and specialized testing services.

**2010** – Acquires the Cole Hersee Company, a supplier of switches and control devices to the commercial vehicle market.

**2012** – Acquires ACCEL AB, located in Vänersborg, Sweden, a leading supplier and manufacturer of advanced electromechanical products and components, primarily for the automotive industry.

**2012** – Acquires Terra Power Systems, LLC, a Bellingham, WA – based manufacturer of electrical distribution products for heavy-duty vehicle applications.

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Developed by Littelfuse for the automotive industry, the ATO® fuse has become the original equipment circuit protection standard for foreign and domestic automobiles and trucks.

2 MINI® FUSES ..... 8

Its miniature design meets the need for more circuits to be protected while utilizing less space, and its ability to cope with high temperatures in adverse environments makes the MINI® Fuse the recommended choice for protection.

3 LOW PROFILE MINI® FUSES ..... 10

The Low Profile MINI® fuse has similar performance characteristics as the standard MINI® fuse.

4 MICRO2™ / MICRO3™ FUSES ..... 12

Its sub-miniature design meets the need for more circuits to be protected while utilizing less space and its ability to cope with high temperatures in adverse environments makes the MICRO2™ and MICRO3™ Fuse the recommended choice for protection.

5 MAXI FUSES ..... 14

The MAXI fuse uses “Diffusion Pill Technology” to provide predictable time delay characteristic and low heat dissipation.

6 JCASE® FUSES ..... 14

The JCASE® is a cartridge style fuse with female terminal design. JCASE® provides both increased time delay and low voltage drop to protect high current circuits. JCASE® has the ability to handle inrush currents. The JCASE® was designed and patented by Littelfuse.

7 LOW PROFILE JCASE® FUSES ..... 16

The Low Profile JCASE® fuse has similar performance characteristics as the standard JCASE® fuse. The lower overall height reduction allows for more space and weight savings and also allows for a shorter male blade terminal, saving additional weight and material savings in fuse box designs.

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8 MCASE™ FUSES ..... 17

It has a miniaturized footprint for optimal usage of space. It is a time delayed fuse and can handle inrush currents. MCASE™ is designed and patented by Littelfuse.

9 PAL AUTOLINK FUSES ..... 20

Commonly found on many Japanese and Domestic built vehicles in current ratings up to 140 amperes. Available with female connector, male connector, bent connector and locking female connector. Color coded to indicate amp rating.

10 GLASS FUSES ..... 21

AG and SFE fuses were designed into North American vehicles prior to 1981. Glass fuses are also used for auto accessory applications.

11 CIRCUIT BREAKERS ..... 24

*Type I – Automatic Reset*
Cycles or continuously resets until the fault is corrected. Type I circuit breakers are typically used to protect circuits which occasionally experience momentary overloads such as wiper motor and headlamp circuits where a self resetting device is preferred.

*Type II – Modified Reset*
Non-cycling, remains in open position while there is power to the circuit. Resets when ignition is turned off. Type II circuit breakers are typically used in applications where fuse replacement is objectionable, such as power window, seat and sunroof circuits.

*Type III – Manual Reset*
Manually resettable circuit breakers remain in the open position until a button, lever or other external reset device is manually depressed. Type III circuit breakers are typically used in applications where a manual reset is desired for safe diagnosis of a circuit fault.

12 MEGA® BOLT ON FUSES ..... 28

The MEGA® Fuse is designed for high current circuit protection up to 500A with "Diffusion Pill Technology." The MEGA® Fuse also provides time delay characteristics. Designed and patented by Littelfuse, the MEGA® Fuse is ideal for battery and alternator protection application and other heavy gauge cables requiring ultra-high current protection.

13 MIDI® BOLT ON FUSES ..... 29

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

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# FUSEOLOGY

***Understanding how circuit protection works is a key to diagnosing automotive electrical problems. When a fuse blows, that means the fuse is doing its job — sending you a message that something needs to be fixed.***

## WHAT IS THE PURPOSE OF A FUSE?

A fuse is a safety valve. It is designed to stop current from exceeding the rating of the wires or components. Without fuses, excessive current could cause damage to electrical systems, and even result in fires.

In general, a fuse has a simple construction. The key component is the "element" — a short piece of metal wire or strap.

## WHAT CAUSES A FUSE TO BLOW?



The element is designed to melt at a specific temperature, to protect wires and equipment from overcurrents. An overcurrent is any current that exceeds the amperage rating or wiring capacity of equipment or devices under normal conditions of use.

If an overcurrent causes the current in a circuit to rise above a specific level — often the circuit's rating — the heat produced will melt the fuse's element, causing the fuse to "blow." This opens the circuit and immediately stops the flow of current. Fuses are designed to blow at temperatures far below those that would cause damage or hazards.

Once a fuse is blown, it can be replaced to allow the current to flow again. But **simply replacing a fuse may not be the solution to the problem.** In fact, there is a chance the fuse will just blow again, because the fuse is signaling a problem in the system. Understanding the factors that cause a fuse to blow will help you diagnose automotive electrical problems.

There are two types of overcurrents that can cause a fuse to blow: overloads and short circuits.

### Overload

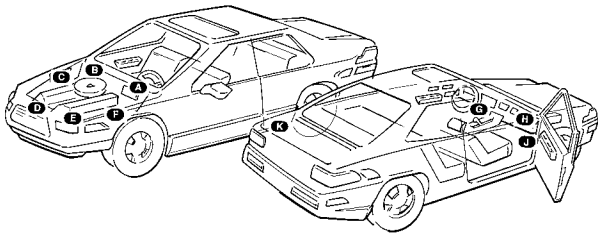
**What:** The current exceeds the amperage at which the wires or equipment are rated.

**Why:** Too many devices are connected to one circuit, or a device malfunctions and draws higher than its normal operating current. Sustained overloads cause overheating of circuit components and the fuse blows.

### Short Circuit

**What:** The current is out of its normal path.

**Why:** A malfunction creates an unintended path for electricity to flow from the battery or alternator to ground. This can be caused by the touching of any positive wire to a ground wire, e.g. due to frayed wire insulation, or tools laid across the positive and ground wires of a circuit. The uncontrolled current to ground then surpasses the normal resistance of the wire contained in the circuit, forcing higher and higher current to the point of the generating heat which blows the fuse.




**Bold letter after fuse part number indicates fuse block location.**

| | | | |
|---|---|---|---|
| **A** | Left fire wall | **G** | Behind/under dash left |
| **B** | Right fire wall | **H** | Behind/in glove box |
| **C** | Right fender | **J** | Behind/under dash right |
| **D** | Right front | **K** | Rear compartment |
| **E** | Left front | **IL** | In-line with device protected (locations may vary from car to car, see your dealer.) |
| **F** | Left fender | | |

## FINDING A FUSE

To be able to address fuse issues, you first must be able to locate the appropriate fuse within the vehicle. In today's vehicles, each individual wire is protected by a circuit protection device.

Fuses are contained in fuse blocks located at various points throughout the vehicle. The diagram above illustrates typical fuse block locations. For further help finding a fuse, use the *Littelfuse Automotive Fuse Guide*, which lists a letter corresponding to the fuse location for every fuse application listed.

## SELECTING THE RIGHT FUSE

Once you have found the fuse that has blown, and solved the problem in the vehicle, you must replace the blown fuse with an appropriate device.

When selecting the right fuse for replacement, you should consider the following:

### Physical Type

The replacement fuse must be of the same physical type as the blown fuse being replaced. It must be of the same style and have the same dimensions so that it can fit properly in the fuse block or fuseholder. Check your owner's manual to determine the appropriate fuse type.

**Installation Tip:** Littelfuse holds patents for the designs on most automotive fuses. It is important to remember that the physical type of the fuse is important, but it is not the only factor affecting the fuse's function. Although some fuses appear to be the same type and dimension as Littelfuse fuses, they do not necessarily have the same performance characteristics.

### Look for the Littelfuse OEM Label

To guarantee the same level of quality in circuit protection that the major automotive manufacturers of North America require for their original equipment fuses, look for the OEM seal on Littelfuse aftermarket products. Only Littelfuse products can guarantee this level of quality.

ORIGINAL EQUIPMENT MANUFACTURER

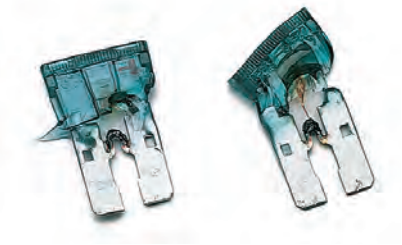

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## Beware of Counterfeit Fuses

At first glance, it's hard to tell the difference between a genuine Littelfuse blade fuse and a counterfeit. The counterfeit may have the same physical dimensions, but using it can be dangerous because it fails to perform to the stringent performance and safety specifications developed by Littelfuse and the OEMs.

In many cases, the elements in counterfeit fuses do not correspond with the amperage specification stamped on the fuse. This will prevent the elements from opening at the rated or correct amperage, which could result in an auto fire causing serious damage to the vehicle, its contents and its passengers.

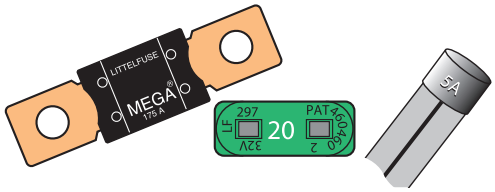
Responding to this growing problem, the United States International Trade Commission and then President Ronald Reagan issued and approved an exclusion order in 1983 prohibiting the importation of the look-alike blade fuses into the United States. This order was initiated because many of these fuses were proven to be totally unsafe. The photos shown here indicate why counterfeit fuses are potentially unsafe and present a fire risk.



To guarantee quality and safety, look for the Littelfuse name on fuses and fuse packaging.

## Current Rating — Amperage

The current rating, marked on every fuse, is the maximum current in amperes that the fuse can continuously carry under specified conditions.




**Tip:** When selecting a fuse, make sure the current rating of the fuse is the same amperage as the circuit. You can obtain the current rating of a circuit by looking in the owner's manual of the vehicle; checking to see if it is written on the fuse block; or consulting the Littelfuse Fuse Guide.

## Overfusing and Underfusing

**Overfusing** is when the fuse has a current rating higher than the rating of the circuit. In this case, the fuse will not be able to protect the circuit properly because the circuit could reach overcurrent levels, causing damage and safety hazards, before the fuse would blow.

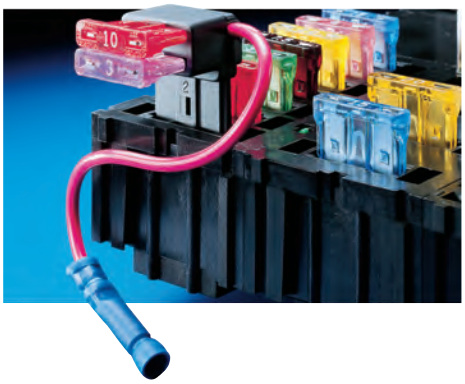
**Underfusing** is when the fuse is rated at a current too far below the rating of the circuit. In this case the fuse will blow, even though the circuit is functioning normally without an overcurrent. Underfusing almost guarantees that a fuse will blow repeatedly. This is referred to as a nuisance blow.

## Voltage Rating

The voltage rating, marked on every fuse, indicates the maximum voltage at which the fuse is designed to operate safely if an overcurrent occurs.

**Tip:** The fuse voltage rating must equal to or exceed this circuit voltage where the fuse is installed. This is not a problem in fuse selection because automotive fuse applications are typically around 12 volts, while the voltage rating of the majority of Littelfuse automotive fuses — including ATO Fuse, MINI Fuse, MAXI Fuse and MEGA Fuse — is 32 volts.

# ADDING A CIRCUIT



Always use a circuit protection device with a fuseholder or fuse block whenever adding additional circuits to ensure optimal safety. The fastest, easiest option for installers who need to add a circuit for applications such as electronic components, is Littelfuse's Add-A-Circuit Fuseholder. Add-A-Circuit, available in ATO® and MINI® blade fuse versions, is designed to facilitate installation of fuses for accessories of 10 amps or less. The Add-A-Circuit adapts the fuse block to the installer's needs, quickly turning one slot in the fuse block into two, providing a safe, economical alternative to splicing or fusetaps.

**Caution:** Fusetaps are not a recommended alternative for adding circuits because they can overstress the terminals in the fuse block. This situation can create a loose fitting fuse, which in turn produces excessive heat, which can cause nuisance blows, even melting of the fuse and fuse block and possibly an expensive repair in the future. When a fusetap is used, in many cases there is no fuse protecting the new circuit, a condition which can also present a hazard.

Another alternative to adding a circuit is the Littelfuse Battery Power Feed. This device attaches directly to the battery terminal, allowing the addition of up to three circuits. Then use an in-line fuseholder to protect the circuit properly.





# ATO® (Autofuse®) Blade Fuse

Developed 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.



## ATO® (Autofuse®) Blade Fuse

It is currently found on most cars, trucks, buses and off the road vehicles worldwide. Features Littelfuse designed industry standard color coding to indicate amp rating.

**Voltage Rating Characteristics:**
**32V AC/DC Fast-Acting**
**Approvals: UL listed, CSA certified 3-30A, SAE J1284.**



SMARTe® GLOW Fuse®

## ATO® Smart Glow Blade Fuse

Smart Glow fuses are innovative automotive style fuses that feature an indicator light that glows when the fuse is blown, saving time to troubleshoot an open circuit.

**Voltage Rating Characteristics: 14 VDC**
**Voltage Rating: 12 VDC**
**Operating Temperature Range: -40˚C to +105˚C**
**Terminals: Tin plated Zinc alloy**




## ATO® FUSE TABLE

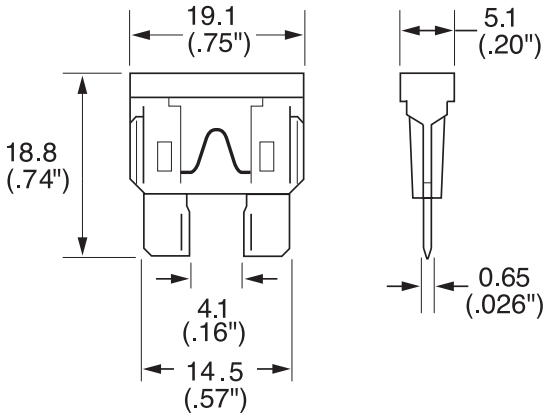
**PRO•TEK Professional Pak (Plus Pack)**

SMARTe® GLOW Fuse®

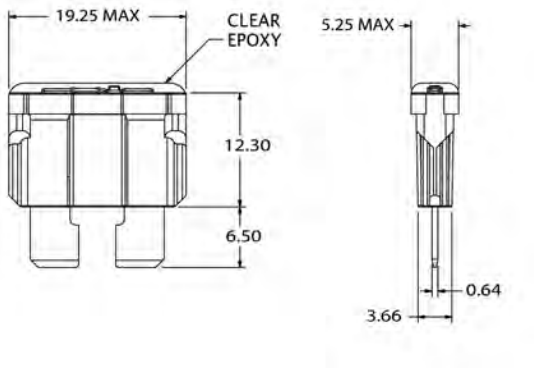
| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | | CARDED | | CARDED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # | NEW PACKAGING MATERIAL # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Black | 1A | 0ATO001.V | ATO1 | 0ATO001.VP | ATO1BP | 0ATO001.VPA | 0ATO001.ZXPRO | 0ATO001.ZXPROA | --- | --- | --- |
| Gray | 2A | 0ATO002.V | ATO2 | 0ATO002.VP | ATO2BP | 0ATO002.VPA | 0ATO002.ZXPRO | 0ATO002.ZXPROA | --- | --- | --- |
| Violet | 3A | 0ATO003.V | ATO3 | 0ATO003.VP | ATO3BP | 0ATO003.VPA | 0ATO003.ZXPRO | 0ATO003.ZXPROA | 0ATO003.VPGLO | 10-0003 | 0ATO003.VPGLOA |
| Pink | 4A | 0ATO004.V | ATO4 | 0ATO004.VP | ATO4BP | 0ATO004.VPA | 0ATO004.ZXPRO | 0ATO004.ZXPROA | --- | --- | --- |
| Tan | 5A | 0ATO005.V | ATO5 | 0ATO005.VP | ATO5BP | 0ATO005.VPA | 0ATO005.ZXPRO | 0ATO005.ZXPROA | 0ATO005.VPGLO | 10-1000 | 0ATO005.VPGLOA |
| Brown | 7.5A | 0ATO07.5V | ATO7.5 | 0ATO07.5VP | ATO7.5BP | 0ATO07.5VPA | 0ATO07.5ZXPRO | 0ATO07.5ZXPROA | 0ATO07.5VPGLO | 10-0007 | 0ATO07.5VPGLOA |
| Red | 10A | 0ATO010.V | ATO10 | 0ATO010.VP | ATO10BP | 0ATO010.VPA | 0ATO010.ZXPRO | 0ATO010.ZXPROA | 0ATO010.VPGLO | 10-1001 | 0ATO010.VPGLOA |
| Blue | 15A | 0ATO015.V | ATO15 | 0ATO015.VP | ATO15BP | 0ATO015.VPA | 0ATO015.ZXPRO | 0ATO015.ZXPROA | 0ATO015.VPGLO | 10-1002 | 0ATO015.VPGLOA |
| Yellow | 20A | 0ATO020.V | ATO20 | 0ATO020.VP | ATO20BP | 0ATO020.VPA | 0ATO020.ZXPRO | 0ATO020.ZXPROA | 0ATO020.VPGLO | 10-1003 | 0ATO020.VPGLOA |
| Clear | 25A | 0ATO025.V | ATO25 | 0ATO025.VP | ATO25BP | 0ATO025.VPA | 0ATO025.ZXPRO | 0ATO025.ZXPROA | 0ATO025.VPGLO | 10-1004 | 0ATO025.VPGLOA |
| Green | 30A | 0ATO030.V | ATO30 | 0ATO030.VP | ATO30BP | 0ATO030.VPA | 0ATO030.ZXPRO | 0ATO030.ZXPROA | 0ATO030.VPGLO | 10-1005 | 0ATO030.VPGLOA |
| Orange | 40A | 0ATO040.V | ATO40 | 0ATO040.VP | ATO40BP | 0ATO040.VPA | --- | --- | --- | --- | --- |


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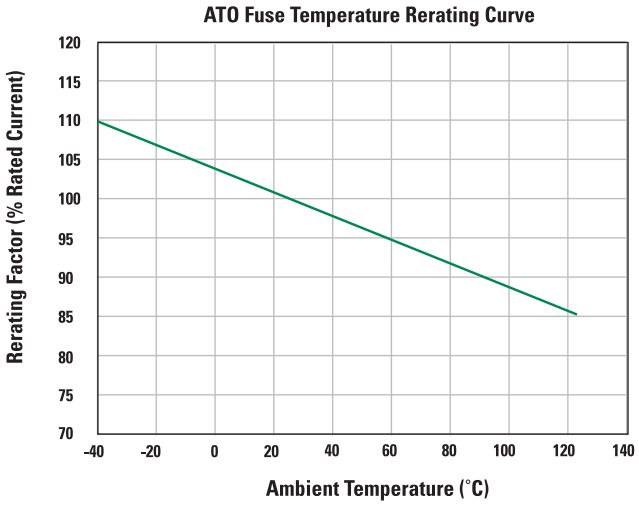
## DIMENSIONS ATO®



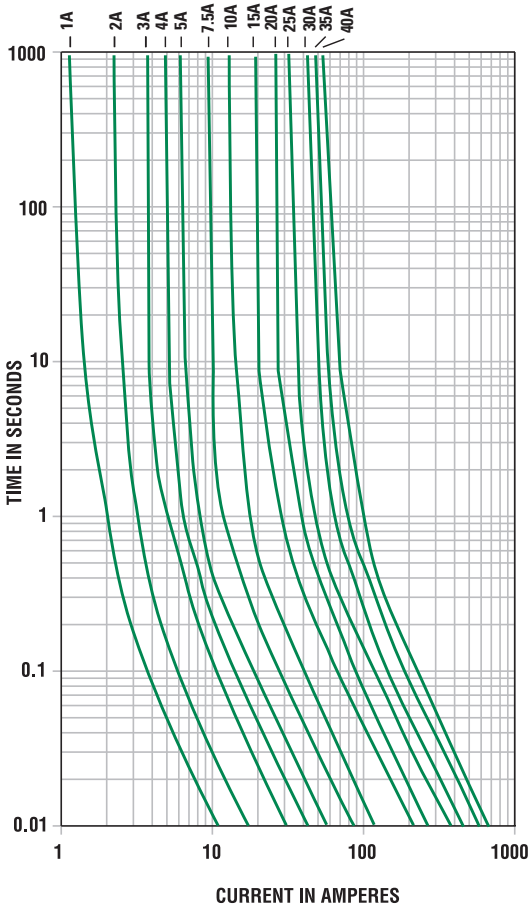

## DIMENSIONS SMART GLOW ATO®




## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTIC CURVES




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time | Opening Time Min / Max (s) |
|---|---|---|
| 100 | 35-40 | 360,000 s / – |
| 110 | 1-30 | 360,000 s / – |
| 135 | 1-2<br>3-40 | 350ms /600 s<br>0.750 s / 600 s |
| 200 | 1-2<br>3-40 | 100 ms/5.0 s<br>0.150 s / 5.0 s |
| 350 | 1-2<br>3-40 | 20 ms / 500 ms<br>80 ms / 500 ms |
| 600 | 1-30<br>35-40 | –/ 100 ms<br>–/ 150 ms |

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# MINI® Blade Fuse

The MINI® Fuse is quickly becoming the new standard for vehicle circuit protection. Its miniature design meets the need for more circuits to be protected while utilizing less space, and its ability to cope with high temperatures in adverse environments makes the MINI® Fuse the recommended choice for protection.



## MINI® Blade Fuse

The MINI® Fuse is quickly becoming the new standard for vehicle circuit protection. Its miniature design meets the need for more circuits to be protected while utilizing less space, and its ability to cope with high temperatures in adverse environments makes the MINI® Fuse the recommended choice for protection.

**Voltage Rating Characteristics: 32V AC/DC Fast-Acting**
**Approvals: UL listed, SAE J2077.**



SMARTe® GLOW Fuse®

## MINI® Smart Glow Blade Fuse

Smart Glow fuses are innovative automotive style fuses that feature an indicator light that glows when the fuse is blown, saving time to troubleshoot an open circuit.

**Interrupting Rating: 1000A @ 14 VDC**
**Voltage Rating: 12 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Terminals: Silver plated Zinc alloy**




## MINI® FUSE TABLE

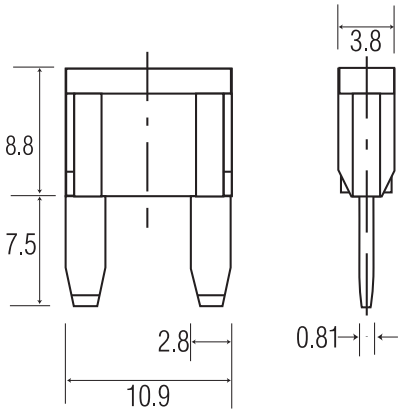
**PRO•TEK Professional Pak (Plus Pack)**

SMARTe® GLOW Fuse®

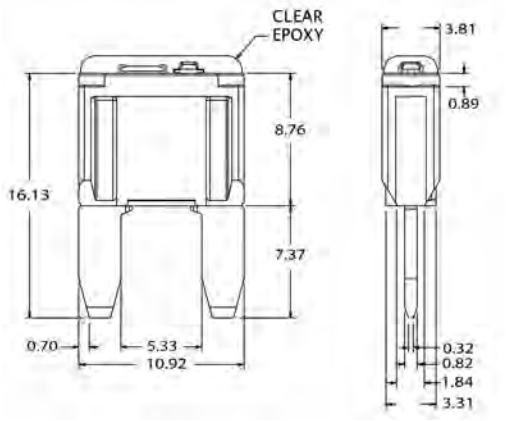
| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | | CARDED | | CARDED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # | NEW PACKAGING MATERIAL # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Gray | 2A | 0MIN002.V | MIN2 | 0MIN002.VP | MIN2BP | 0MIN002.VPA | 0MIN002.ZXPRO | 0MIN002.ZXPROA | --- | --- | --- |
| Violet | 3A | 0MIN003.V | MIN3 | 0MIN003.VP | MIN3BP | 0MIN003.VPA | 0MIN003.ZXPRO | 0MIN003.ZXPROA | 0MIN003.VPGLO | 11-0003 | 0MIN003.VPGLOA |
| Pink | 4A | 0MIN004.V | MIN4 | 0MIN004.VP | MIN4BP | 0MIN004.VPA | 0MIN004.ZXPRO | 0MIN004.ZXPROA | --- | --- | --- |
| Tan | 5A | 0MIN005.V | MIN5 | 0MIN005.VP | MIN5BP | 0MIN005.VPA | 0MIN005.ZXPRO | 0MIN005.ZXPROA | 0MIN005.VPGLO | 11-1000 | 0MIN005.VPGLOA |
| Brown | 7.5A | 0MIN07.5V | MIN7.5 | 0MIN07.5VP | MIN7.5BP | 0MIN07.5VPA | 0MIN07.5ZXPRO | 0MIN07.5ZXPROA | 0MIN07.5VPGLO | 11-0007 | 0MIN07.5VPGLOA |
| Red | 10A | 0MIN010.V | MIN10 | 0MIN010.VP | MIN10BP | 0MIN010.VPA | 0MIN010.ZXPRO | 0MIN010.ZXPROA | 0MIN010.VPGLO | 11-1001 | 0MIN010.VPGLOA |
| Blue | 15A | 0MIN015.V | MIN15 | 0MIN015.VP | MIN15BP | 0MIN015.VPA | 0MIN015.ZXPRO | 0MIN015.ZXPROA | 0MIN015.VPGLO | 11-1002 | 0MIN015.VPGLOA |
| Yellow | 20A | 0MIN020.V | MIN20 | 0MIN020.VP | MIN20BP | 0MIN020.VPA | 0MIN020.ZXPRO | 0MIN020.ZXPROA | 0MIN020.VPGLO | 11-1003 | 0MIN020.VPGLOA |
| Clear | 25A | 0MIN025.V | MIN25 | 0MIN025.VP | MIN25BP | 0MIN025.VPA | 0MIN025.ZXPRO | 0MIN025.ZXPROA | 0MIN025.VPGLO | 11-1004 | 0MIN025.VPGLOA |
| Green | 30A | 0MIN030.V | MIN30 | 0MIN030.VP | MIN30BP | 0MIN030.VPA | 0MIN030.ZXPRO | 0MIN030.ZXPROA | 0MIN030.VPGLO | 11-1005 | 0MIN030.VPGLOA |
| Black Diode | 1A | --- | --- | --- | --- | 2400113XPA | --- | --- | --- | --- | --- |


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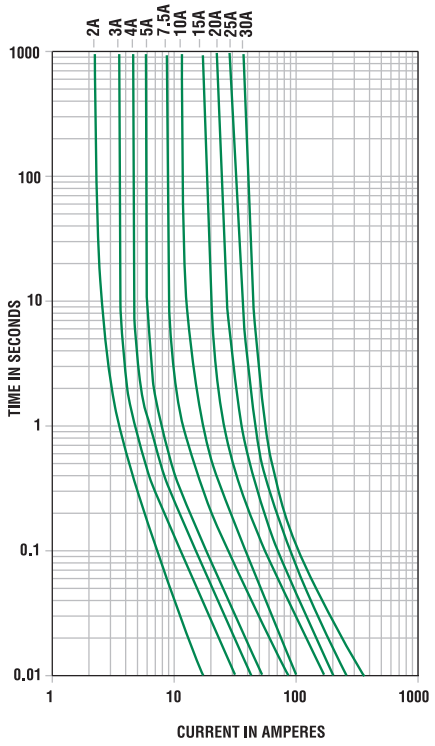
## DIMENSIONS MINI®



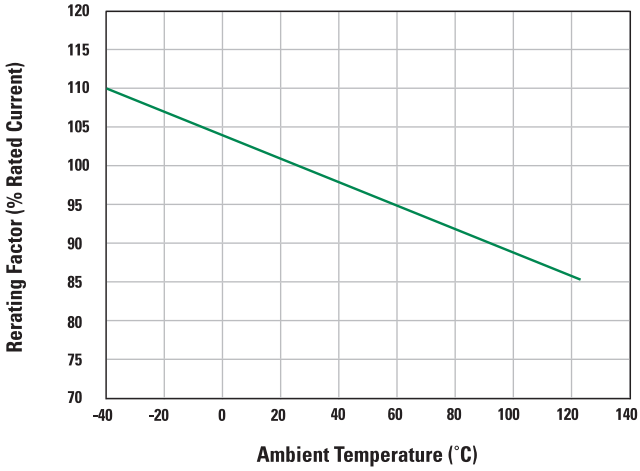

## DIMENSIONS SMART GLOW MINI®




## TIME-CURRENT CHARACTERISTIC CURVES




## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 110 | 360,000 s / – |
| 135 | 0.75 s / 600 s |
| 200 | 0.15 s / 5 s |
| 350 | 0.080 s / 0.250 s |
| 600 | 0.030 s / 0.100 s |



NEW!

## MINI® Diode Fuse

**Operating Temperature Range: -40˚C to +85˚C**
**Power Rating: 1/4 W Max**
**Housing Material: Thermoplastic**
**Terminal Material: C.R.S. (Ni/Zn Plated)**
**Terminal Retention: 25 N**

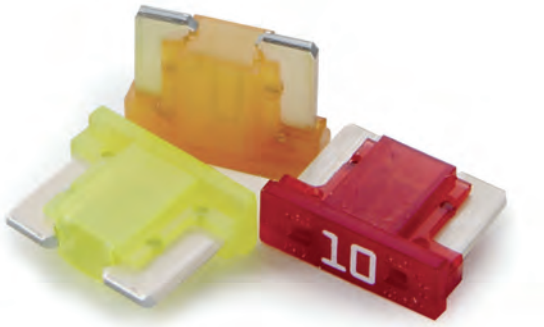
## MINI® DIODE FUSE TABLE

| COLOR CODE | CURRENT RATING (A) | CARDED MATERIAL # |
|---|---|---|
| Black Diode | 1A | 02400113XP |



# Low Profile MINI® Blade Fuse

The Low Profile MINI® fuse has similar performance characteristics as the standard MINI® fuse. The lower overall height allows for space and weight savings.




## Low Profile MINI® Blade Fuse

The Low Profile MINI® fuse is designed to mate with tuning-fork terminals, which provides additional weight and material savings in fuse box designs by eliminating the need for female box terminals.

**Voltage Rating: 58 VDC**
**Interrupting Rating: 1000A @ 58 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Terminals: either Ag or Sn plated zinc**
**Housing Materials: Nylon composite**



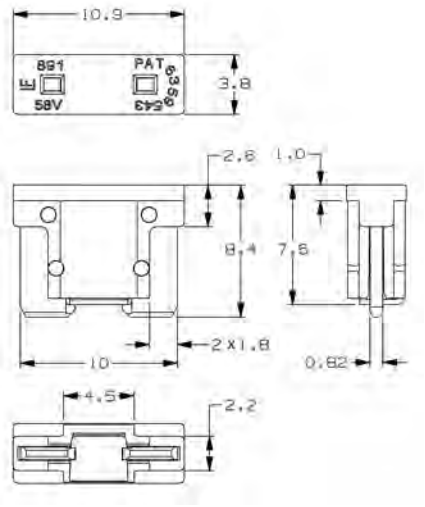

## LOW PROFILE MINI® FUSE TABLE

**PRO•TEK Professional Pak (Plus Pack)**

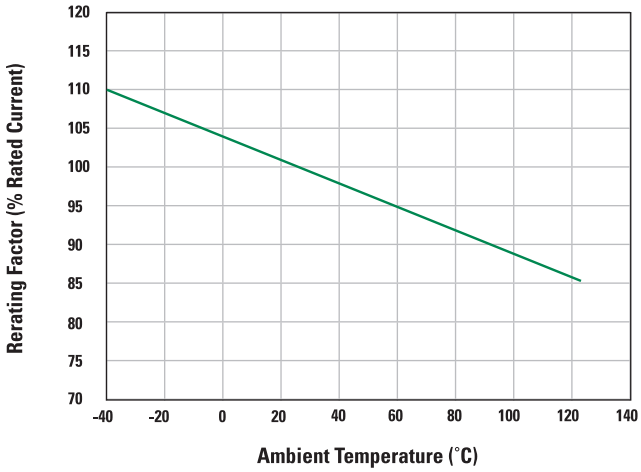
| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | | CARDED |
|---|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # |
| Gray | 2A | LMIN002.V | LMIN2 | --- | --- | --- | --- |
| Tan | 5A | LMIN005.V | LMIN5 | LMIN005.VP | LMIN005BP | LMIN005.VPA | LMIN005.ZXPROA |
| Brown | 7.5A | LMIN07.5V | LMIN7.5 | --- | --- | --- | --- |
| Red | 10A | LMIN010.V | LMIN10 | LMIN010.VP | LMIN010BP | LMIN010.VPA | LMIN010.ZXPROA |
| Blue | 15A | LMIN015.V | LMIN15 | LMIN015.VP | LMIN015BP | LMIN015.VPA | LMIN015.ZXPROA |
| Yellow | 20A | LMIN020.V | LMIN20 | LMIN020.VP | LMIN020BP | LMIN020.VPA | LMIN020.ZXPROA |
| Clear | 25A | LMIN025.V | LMIN25 | LMIN025.VP | LMIN025BP | LMIN025.VPA | LMIN025.ZXPROA |
| Green | 30A | LMIN030.V | LMIN30 | LMIN030.VP | LMIN030BP | LMIN030.VPA | LMIN030.ZXPROA |


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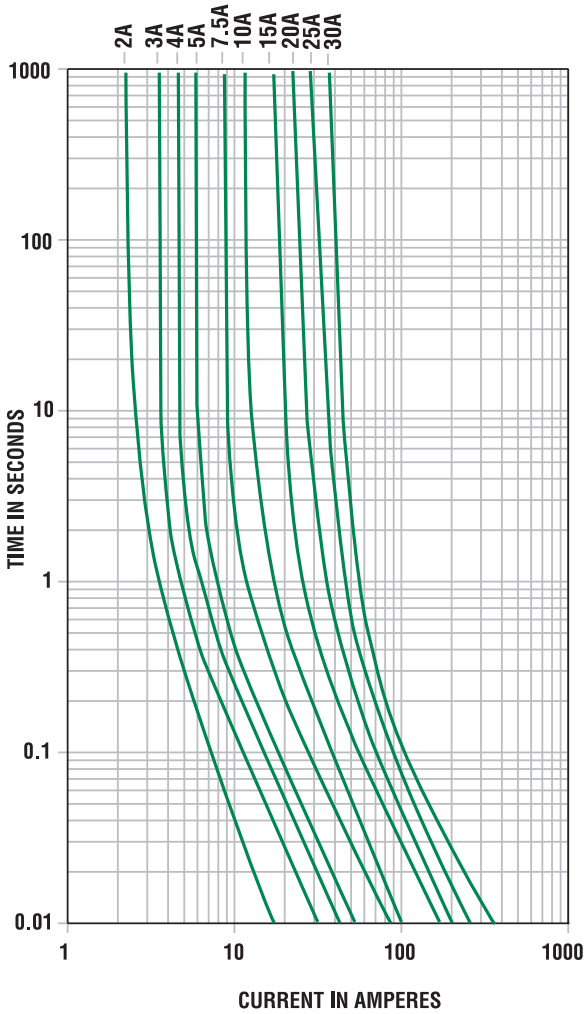
## DIMENSIONS




## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTIC CURVES




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 110 | 360,000 s / – |
| 135 | 0.750 s / 120 s |
| 200 | 0.150 s / 5 s |
| 350 | 0.080 s / 0.250 s |
| 600 | 0.030 s / 0.100 s |

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# MICRO2™ Blade Fuse

The MICRO2™ Fuse is the new standard for vehicle circuit protection.

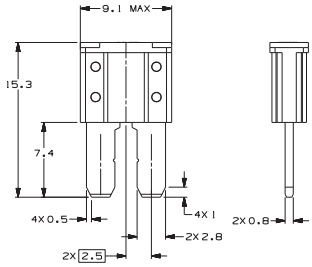


## MICRO2™ Blade Fuse

Its sub-miniature design meets the need for more circuits to be protected while utilizing less space and its ability to cope with high temperatures in adverse environments makes the MICRO2™ Fuse the recommended choice for protection.

**Voltage Rating: 32 VDC**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**

## DIMENSIONS

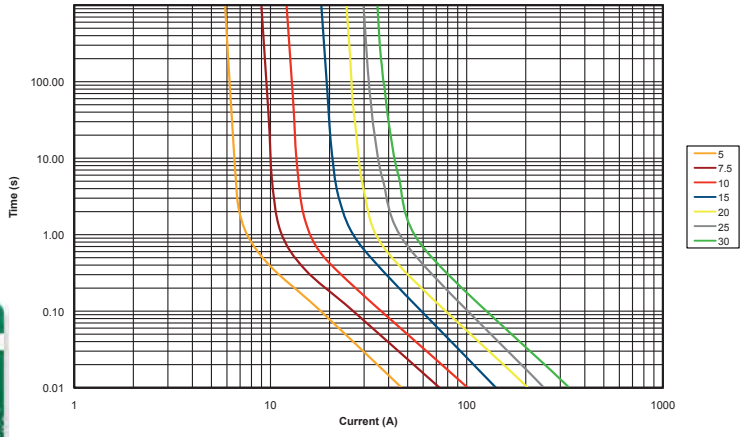



## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 110 | 100 h / – |
| 135 | 0.75 s / 120 s |
| 160 | 0.30 s / 50 s |
| 200 | 0.150 s / 5 s |
| 350 | 0.04 s / 0.50 s |
| 600 | 0.02 s / 0.100 s |



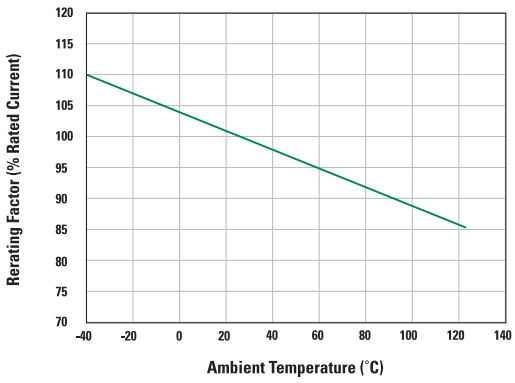

## TIME-CURRENT CHARACTERISTIC CURVES




## MICRO2™ FUSE TABLE

| COLOR CODE | CURRENT RATING (A) | BULK 4000 PC MATERIAL # | BULK 500 PC MATERIAL # | BULK 50 PC MATERIAL # | BOXED 5 PC MATERIAL # | CARDED 5 PC MATERIAL # |
|---|---|---|---|---|---|---|
| Tan | 5A | 0327005.ZXS | 0327005.UXS | 0327005.LXS | MIC2005.V | MIC2005.VP |
| Brown | 7.5A | 032707.5ZXS | 032707.5UXS | 032707.5LXS | MIC207.5V | MIC207.5VP |
| Red | 10A | 0327010.ZXS | 0327010.UXS | 0327010.LXS | MIC2010.V | MIC2010.VP |
| Blue | 15A | 0327015.ZXS | 0327015.UXS | 0327015.LXS | MIC2015.V | MIC2015.VP |
| Yellow | 20A | 0327020.ZXS | 0327020.UXS | 0327020.LXS | MIC2020.V | MIC2020.VP |
| Clear | 25A | 0327025.ZXS | 0327025.UXS | 0327025.LXS | MIC2025.V | MIC2025.VP |
| Green | 30A | 0327030.ZXS | 0327030.UXS | 0327030.LXS | MIC2030.V | MIC2030.VP |

## TEMPERATURE RERATING CURVE





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# MICRO3™ Blade Fuse

The MICRO3™ Fuse is the new standard for vehicle circuit protection.





## MICRO3™ Blade Fuse

The MICRO3™ Fuse is the new standard for vehicle circuit protection. The MICRO3™ Fuse has 3 terminals and 2 fuse elements with a common center terminal. Its sub-miniature design meets the need for more circuits to be protected while utilizing less space and its ability to cope with high temperatures in adverse environments makes the MICRO3™ Fuse the recommended choice for protection.

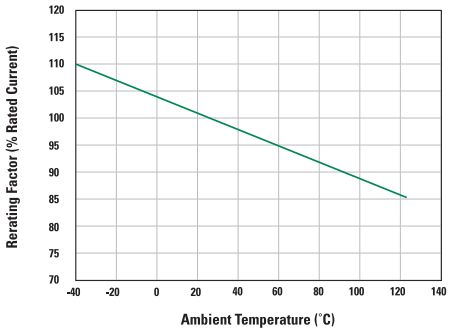


**Voltage Rating: 32 VDC**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**

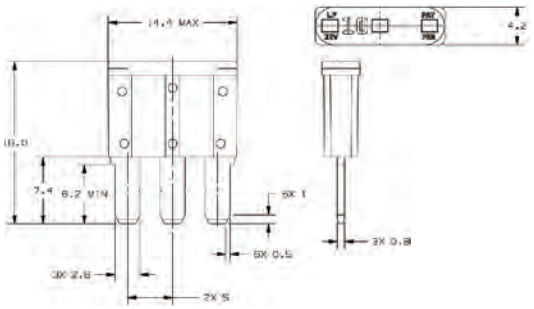
## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 110 | 100 h / – |
| 135 | 0.75 s / 120 s |
| 160 | 0.30 s / 50 s |
| 200 | 0.150 s / 5 s |
| 350 | 0.04 s / 0.50 s |
| 600 | 0.02 s / 0.100 s |

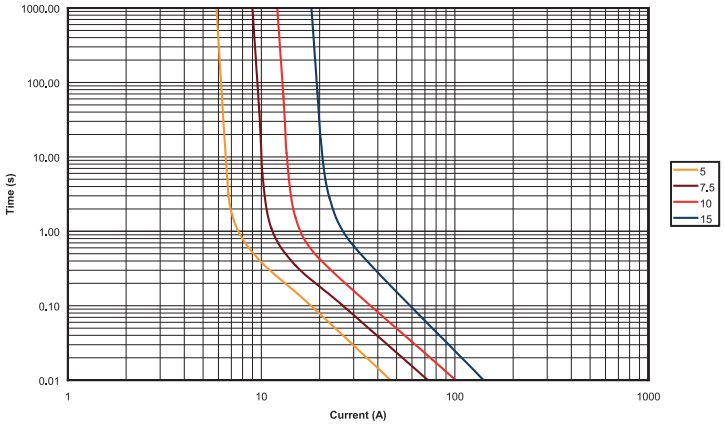
## TEMPERATURE RERATING CURVE




## DIMENSIONS



## TIME-CURRENT CHARACTERISTIC CURVES



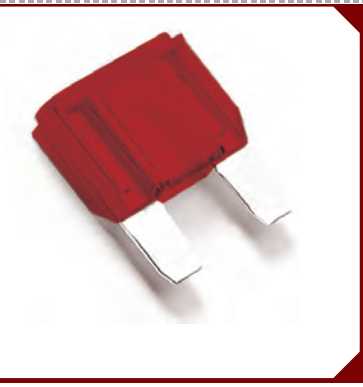




## MICRO3™ FUSE TABLE

| COLOR CODE | CURRENT RATING (A) | BULK 2000 PC MATERIAL # | BULK 50 PC MATERIAL # | BOXED 5 PC MATERIAL # | CARDED 5 PC MATERIAL # |
|---|---|---|---|---|---|
| Tan | 5A | 0337005.PXS | 0337005.LXS | MIC3005.V | MIC3005.VP |
| Brown | 7.5A | 033707.5PXS | 033707.5LXS | MIC307.5V | MIC307.5VP |
| Red | 10A | 0337010.PXS | 0337010.LXS | MIC3010.V | MIC3010.VP |
| Blue | 15A | 0337015.PXS | 0337015.LXS | MIC3015.V | MIC3015.VP |

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# MAXI Blade Fuse

The MAXI fuse uses “Diffusion Pill Technology” to provide predictable time delay characteristic and low heat dissipation.



## MAXI Blade Fuse

MAXI Fuses are primarily used for under hood applications and are produced with a high temperature polymer and silver plated blades. They replace the commonly used fusible wire or fusible link to protect a high current segment or system of the wiring harness. Features Littelfuse designed industry standard color coding to indicate amp rating.

**Voltage Rating: 32 VDC**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Terminals: Ag plated**



## MAXI Smart Glow Blade Fuse

Smart Glow fuses are innovative automotive style fuses that feature an indicator light that glows when the fuse is blown, saving time to troubleshoot an open circuit.

**Voltage Rating: 32 VDC**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Terminals: Ag plated**

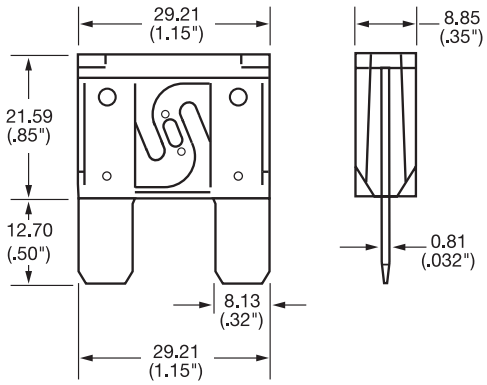



## MAXI FUSE TABLE

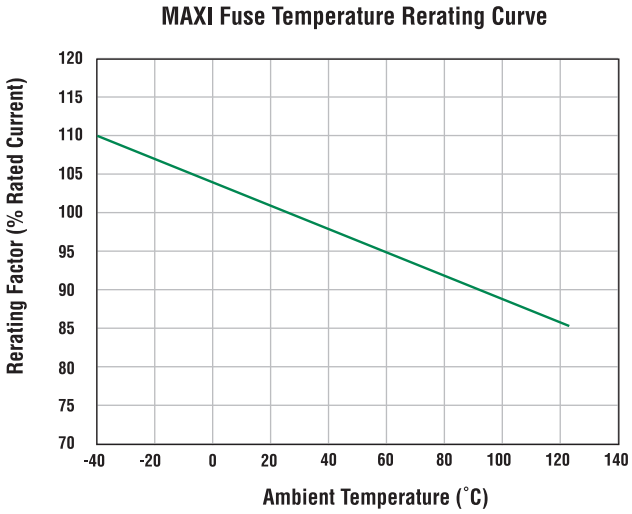
| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | | CARDED | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Yellow | 20A | 0MAX020.X | MAX20 | 0MAX020.XP | MAX20BP | 0MAX020.XPA | 0MAX020.XPGLO | 30-1020 | 0MAX020.XPGLOA |
| Green | 30A | 0MAX030.X | MAX30 | 0MAX030.XP | MAX30BP | 0MAX030.XPA | 0MAX030.XPGLO | 30-1030 | 0MAX030.XPGLOA |
| Orange | 40A | 0MAX040.X | MAX40 | 0MAX040.XP | MAX40BP | 0MAX040.XPA | 0MAX040.XPGLO | 30-1040 | 0MAX040.XPGLOA |
| Red | 50A | 0MAX050.X | MAX50 | 0MAX050.XP | MAX50BP | 0MAX050.XPA | 0MAX050.XPGLO | 30-1050 | 0MAX050.XPGLOA |
| Blue | 60A | 0MAX060.X | MAX60 | 0MAX060.XP | MAX60BP | 0MAX060.XPA | 0MAX060.XPGLO | 30-1060 | 0MAX060.XPGLOA |
| Tan | 70A | 0MAX070.X | MAX70 | --- | --- | --- | 0MAX070.XPGLO | 30-1070 | 0MAX070.XPGLOA |
| Clear | 80A | 0MAX080.X | MAX80 | 0MAX080.XP | MAX80BP | 0MAX080.XPA | 0MAX080.XPGLO | 30-1080 | 0MAX080.XPGLOA |
| Purple | 100A | --- | --- | --- | --- | --- | 0MAX100.XPGLO | 30-1100 | 0MAX100.XPGLOA |


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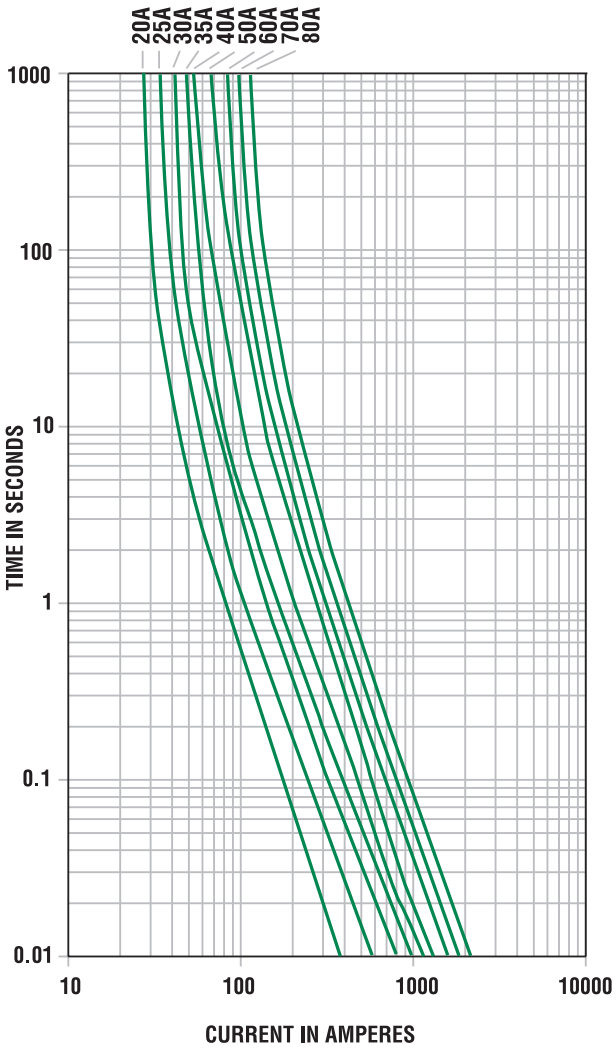
## DIMENSIONS




## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTIC CURVES




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 110 | 360,000 s / – |
| 135 | 60 s / 1,800 s |
| 200 | 2 s / 60 s |
| 350 | 0.20 s / 7 s |
| 600 | 0.040 s / 1 s |

5

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# JCASE® High Amp Fuse

The JCASE® is a cartridge style fuse with female terminal design. JCASE® provides both increased time delay and low voltage drop to protect high current circuits. JCASE® has the ability to handle inrush currents. The JCASE® was designed and patented by Littelfuse.



## JCASE® Fuse

Littelfuse patented high current fuse introduced in 1997 designed to replace the MAXI fuse and cartridge style fuses. Currently OEM on many new domestic and Japanese models. Smaller space saving footprint is being designed in by many OEM's. Patented technology provides both increased time delay and low voltage drop. Features ANSI standard OCR-A font for visual inspection systems, double spring-beam box terminal and unique secondary locking feature holds terminal firmly in place.

**Voltage Rating Characteristics: 32V AC/DC Slo-Blo®**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Insertion Force: 53N max. (12lb)**
**Extraction Force: 9N min. (2lb)**

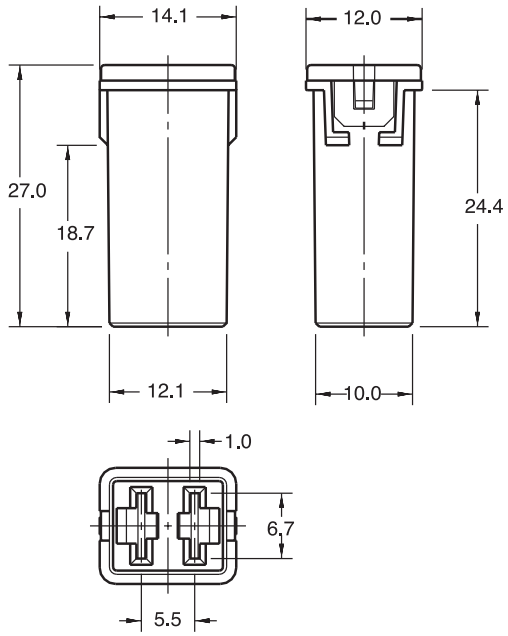



## JCASE® FUSE TABLE

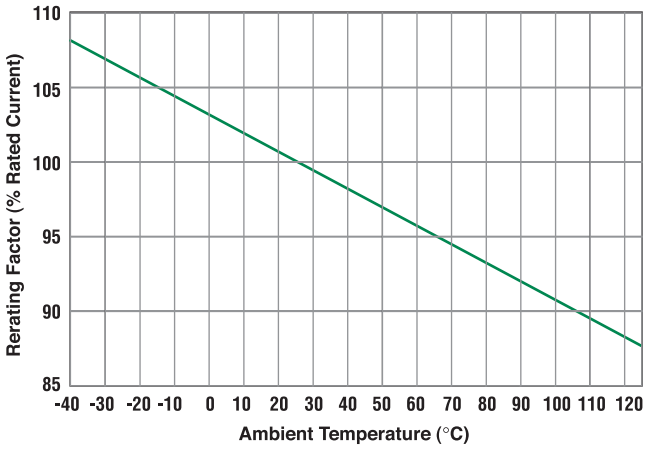
| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Blue | 20A | JCAS020.X | JCAS20 | JCAS020.XP | JCAS20BP | JCAS020.XPA |
| NEW! White | 25A | JCAS025.X | JCAS25 | JCAS025.XP | JCAS25BP | JCAS025.XPA |
| Pink | 30A | JCAS030.X | JCAS30 | JCAS030.XP | JCAS30BP | JCAS030.XPA |
| Green | 40A | JCAS040.X | JCAS40 | JCAS040.XP | JCAS40BP | JCAS040.XPA |
| Red | 50A | JCAS050.X | JCAS50 | JCAS050.XP | JCAS50BP | JCAS050.XPA |
| Yellow | 60A | JCAS060.X | JCAS60 | JCAS060.XP | JCAS60BP | JCAS060.XPA |


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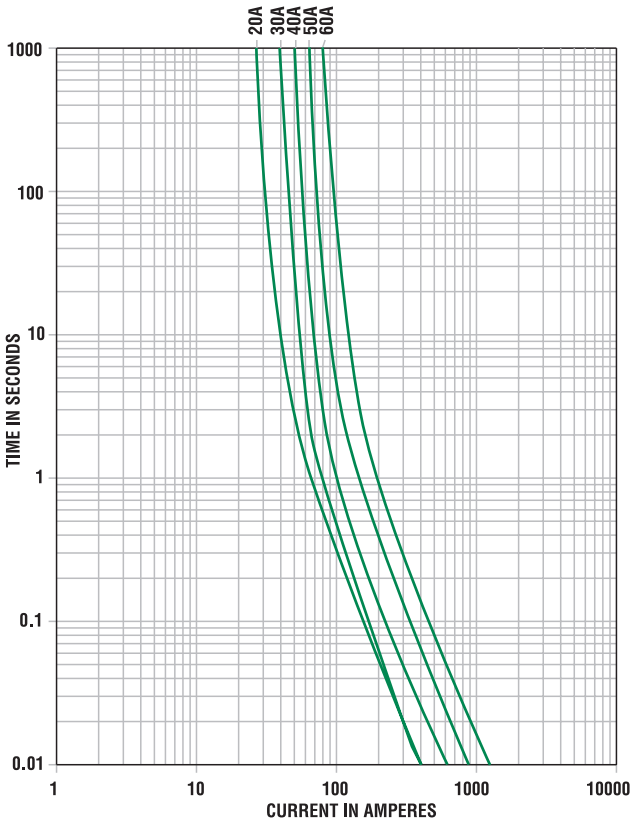
## DIMENSIONS




## TEMPERATURE RERATING CURVE

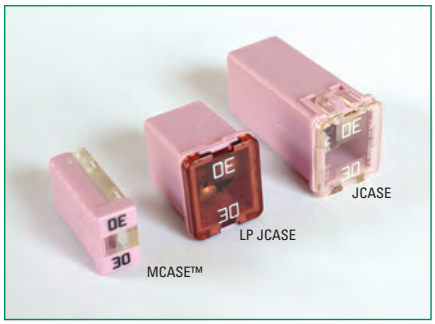



## TIME-CURRENT CHARACTERISTIC CURVES




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 100 | 360,000 s / – |
| 135 | 60 s / 1800 s |
| 200 | 4 s / 60 s |
| 350 | 0.200 s / 7 s |
| 600 | 0.040 s / 1 s |






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# Low Profile JCASE® Fuse

The Low Profile JCASE® fuse has similar performance characteristics as the standard JCASE® fuse. The lower overall height reduction allows for more space and weight savings and also allows for a shorter male blade terminal, saving additional weight and material in fuse box designs.



## Low Profile JCASE® Fuse

Smaller space saving footprint is being designed in by many OEM's. Patented technology provides both increased time delay and low voltage drop. Features ANSI standard OCR-A font for visual inspection systems, double spring-beam box terminal and unique secondary locking feature holds terminal firmly in place.

**Voltage Rating: 58 VDC**
**Interrupting Rating: 1000A @ 58 VDC**
**Operating Temperature Range: -40˚C to + 125˚C**

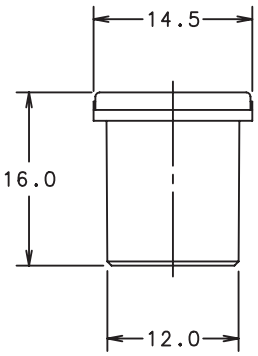
**Insertion Force: 53N Max. (12 lb.)**
**Extraction Force: 9N Min (2 lb.)**

7

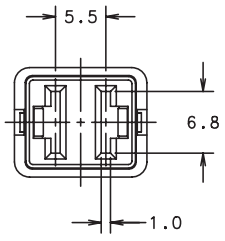
## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 100 | 360,000 s / – |
| 135 | 60 s / 1800 s |
| 200 | 4 s / 60 s |
| 350 | 0.200 s / 7 s |
| 600 | 0.040 s / 1 s |

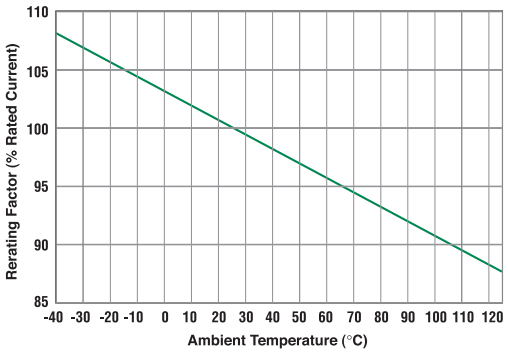
## DIMENSIONS



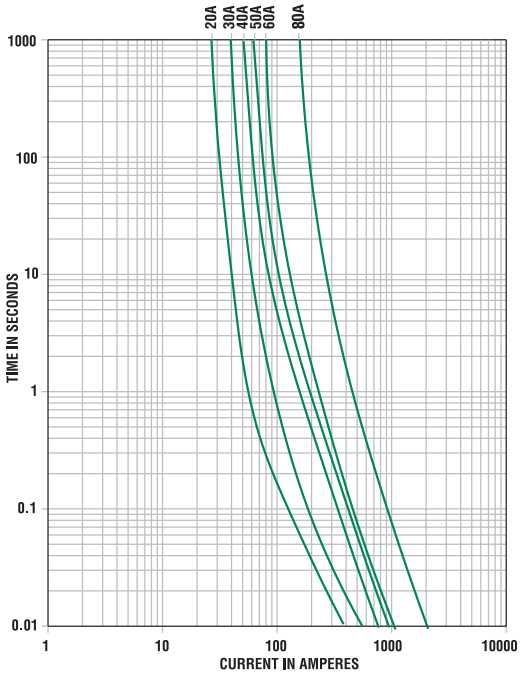



## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTIC CURVES




## LOW PROFILE JCASE® FUSE TABLE

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Blue | 20A | LJCA020.X | LJCA20 | LJCA020.XP | LJCA20BP | LJCA020.XPA |
| White | 25A | LJCA025.X | LJCA25 | --- | --- | LJCA025.XPA |
| Pink | 30A | LJCA030.X | LJCA30 | LJCA030.XP | LJCA30BP | LJCA030.XPA |
| Green | 40A | LJCA040.X | LJCA40 | LJCA040.XP | LJCA40BP | LJCA040.XPA |
| Red | 50A | LJCA050.X | LJCA50 | LJCA050.XP | LJCA50BP | LJCA050.XPA |
| Yellow | 60A | LJCA060.X | LJCA60 | LJCA060.XP | LJCA60BP | LJCA060.XPA |

NEW!


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# MCASE™ Fuse

The MCASE™ is the latest cartridge style fuse with female terminals for 2.8 mm male terminals.



## MCASE™ Fuse

It has a miniaturized footprint for optimal usage of space. It is a time delayed fuse and can handle inrush currents. MCASE™ is designed and patented by Littelfuse.

**Voltage Rating: 32 VDC**
**Interrupting Ratings: 1000A @ 32 VDC**
**Operating Temperature Range: -40˚C to +125˚C**
**Insertion Force: 44.1N Max. (9.9 lb.)**
**Extraction Force: 4N Min. (0.9 lb). I 24.5N Max. (5.5 lb)**

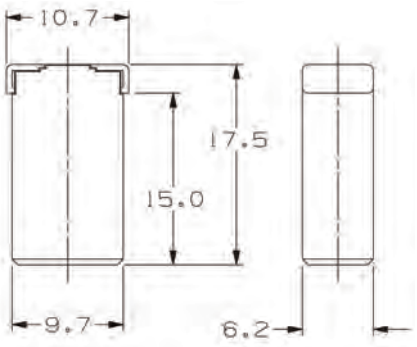


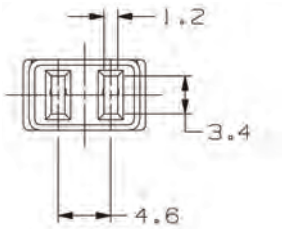


## TIME-CURRENT CHARACTERISTICS

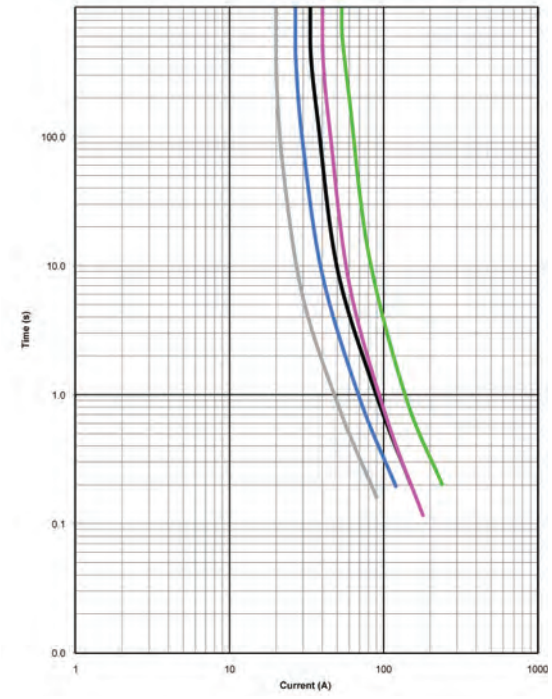
| % of Rating | Opening Time Min / Max (s) |
|---|---|
| 100 | 100 hrs / – |
| 135 | 60 s / 1800 s |
| 200 | 5 s / 60 s |
| 350 | 0.2 s / 7 s |
| 600 | 0.04 s / 1 s |

## DIMENSIONS




## TIME-CURRENT CHARACTERISTIC CURVES



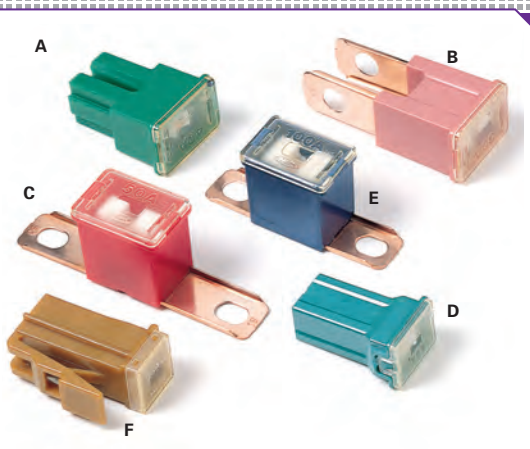




## MCASE™ FUSE TABLE

| COLOR CODE | CURRENT RATING (A) | BULK 2000 PC MATERIAL # | BULK 500 PC MATERIAL # | BOXED 1 PC MATERIAL # | CARDED MATERIAL # |
|---|---|---|---|---|---|
| Gray | 15A | 0695015.PX4 | 0695015.U | MCAS015.X | MCAS015.XP |
| Blue | 20A | 0695020.PX4 | 0695020.U | MCAS020.X | MCAS020.XP |
| White | 25A | 0695025.PX4 | 0695025.U | MCAS025.X | MCAS025.XP |
| Pink | 30A | 0695030.PX4 | 0695030.U | MCAS030.X | MCAS030.XP |
| Green | 40A | 0695040.PX4 | 0695040.U | MCAS040.X | MCAS040.XP |
| Shunt - 2000 pc | | 0695900.PX4 | --- | --- | --- |
| Shunt - 500 pc | | 0695900.UX4 | --- | --- | --- |

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# PAL Auto Link Fuses

Commonly found on many Japanese and Domestic built vehicles in current ratings up to 140 amperes. Available with female connector, male connector, bent connector and locking female connector. Color coded to indicate amp rating.





## A. AUTO LINK PAL FEMALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Blue | 20A | 0PAL020.X | PAL020 | 0PAL020.XP | PAL020BP | 0PAL020.XPA |
| Pink | 30A | 0PAL030.X | PAL030 | 0PAL030.XP | PAL030BP | 0PAL030.XPA |
| Green | 40A | 0PAL040.X | PAL040 | 0PAL040.XP | PAL040BP | 0PAL040.XPA |
| Red | 50A | 0PAL050.X | PAL050 | 0PAL050.XP | PAL050BP | 0PAL050.XPA |
| Yellow | 60A | 0PAL060.X | PAL060 | 0PAL060.XP | PAL060BP | 0PAL060.XPA |

## B. AUTO LINK PAL STRAIGHT MALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Pink | 30A | 0PAL130.X | PAL130 | 0PAL130.XP | PAL130BP | 0PAL130.XPA |
| Yellow | 60A | 0PAL160.X | PAL160 | 0PAL160.XP | PAL160BP | 0PAL160.XPA |
| Black | 80A | 0PAL180.X | PAL180 | 0PAL180.XP | PAL180BP | 0PAL180.XPA |
| Blue | 100A | 0PAL1100X | PAL1100 | 0PAL1100XP | PAL1100BP | 0PAL1100XPA |
| Gray | 120A | 0PAL1120X | PAL1120 | 0PAL1120XP | PAL1120BP | 0PAL1120XPA |

## C. AUTO LINK PAL 13/16" BENT MALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Pink | 30A | 0PAL230.X | PAL230 | 0PAL230.XP | PAL230BP | 0PAL230.XPA |
| Green | 40A | 0PAL240.X | PAL240 | 0PAL240.XP | PAL240BP | 0PAL240.XPA |
| Red | 50A | 0PAL250.X | PAL250 | 0PAL250.XP | PAL250BP | 0PAL250.XPA |
| Yellow | 60A | 0PAL260.X | PAL260 | 0PAL260.XP | PAL260BP | 0PAL260.XPA |
| Brown | 70A | 0PAL270.X | PAL270 | 0PAL270.XP | PAL270BP | 0PAL270.XPA |
| Black | 80A | 0PAL280.X | PAL280 | 0PAL280.XP | PAL280BP | 0PAL280.XPA |
| Blue | 100A | 0PAL2100X | PAL2100 | 0PAL2100XP | PAL2100BP | 0PAL2100XPA |
| Gray | 120A | 0PAL2120X | PAL2120 | 0PAL2120XP | PAL2120BP | 0PAL2120XPA |
| Purple | 140A | --- | --- | 0PAL2140XP | PAL2140BP | 0PAL2140XPA |

## D. AUTO LINK PAL MINI FEMALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Pink | 30A | 0PAL330.X | PAL330 | 0PAL330.XP | PAL330BP | 0PAL330.XPA |
| Green | 40A | 0PAL340.X | PAL340 | 0PAL340.XP | PAL340BP | 0PAL340.XPA |

## E. AUTO LINK PAL 9/16" BENT MALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Pink | 30A | 0PAL430.X | PAL430 | 0PAL430.XP | PAL430BP | 0PAL430.XPA |
| Green | 40A | 0PAL440.X | PAL440 | 0PAL440.XP | PAL440BP | 0PAL440.XPA |
| Red | 50A | 0PAL450.X | PAL450 | 0PAL450.XP | PAL450BP | 0PAL450.XPA |
| Black | 80A | 0PAL480.X | PAL480 | 0PAL480.XP | PAL480BP | 0PAL480.XPA |
| Blue | 100A | 0PAL4100X | PAL4100 | 0PAL4100XP | PAL4100BP | 0PAL4100XPA |
| White | 120A | --- | --- | 0PAL4120XP | PAL4120BP | 0PAL4120XPA |
| Purple | 140A | --- | --- | 0PAL4140XP | PAL4140BP | 0PAL4140XPA |

## F. AUTO LINK PAL LOCKING FEMALE TERMINAL

| COLOR CODE | CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|
| | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| Brown | 25A | 0PAL525.X | PAL525 | 0PAL525.XP | PAL525BP | 0PAL525.XPA |
| Green | 30A | 0PAL530.X | PAL530 | 0PAL530.XP | PAL530BP | 0PAL530.XPA |


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# GLASS Fuses

AG and SFE fuses were designed into North American vehicles prior to 1981. Glass fuses are also used for auto accessory applications.






## AG Fuses

Originally stood for "all glass." The automotive industry uses the "AG" prefix (AGC, AGW) for most glass fuses. They vary in length, diameter and amperage rating.




**Voltage Rating: 32V AC/DC**
**250V may be substituted**

## SFE Fuses

Glass fuses designed to specifications set by the Society of Fuse Engineers. All are 1/4 inch in diameter, but vary in length according to the ampere rating to ensure accurate fuse replacement.




**Voltage Rating: 32V AC/DC**
**250V may be substituted**

## GBC Fuses

A thermoplastic type, torpedo shaped fuse that can be currently found in many European cars. Consisting of a heat resistant body, the fuse element stretches over the exterior of the body from end to end. The bodies vary in color (by amperage) to ensure proper replacement.




**Voltage Rating: 32V AC/DC**
**250V may be substituted**

| CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|
| | MATERIAL# | CATALOG# | MATERIAL# | CATALOG# | NEW PACKAGING MATERIAL # |
| **AGA** | | | | | |
| 1A | 0AGA001.V | AGA1 | 0AGA001.VP | AGA1BP | 0AGA001.VPA |
| 2A | 0AGA002.V | AGA2 | 0AGA002.VP | AGA2BP | 0AGA002.VPA |
| 3A | 0AGA003.V | AGA3 | 0AGA003.VP | AGA3BP | 0AGA003.VPA |
| 5A | 0AGA005.V | AGA5 | 0AGA005.VP | AGA5BP | 0AGA005.VPA |
| 6A | 0AGA006.V | AGA6 | --- | --- | --- |
| 7.5A | 0AGA07.5V | AGA7.5 | --- | --- | --- |
| 10A | 0AGA010.V | AGA10 | 0AGA010.VP | AGA10BP | 0AGA010.VPA |
| 15A | 0AGA015.V | AGA15 | 0AGA015.VP | AGA15BP | 0AGA015.VPA |
| 20A | 0AGA020.V | AGA20 | 0AGA020.VP | AGA20BP | 0AGA020.VPA |
| 25A | 0AGA025.V | AGA25 | --- | --- | --- |
| 30A | 0AGA030.V | AGA30 | 0AGA030.VP | AGA30BP | 0AGA030.VPA |
| **AGC** | | | | | |
| .5A | 0AGC.500V | AGC.500 | --- | --- | --- |
| 1A | 0AGC001.V | AGC1 | 0AGC001.VP | AGC1BP | 0AGC001.VPA |
| 1.5A | 0AGC01.5V | AGC1.5 | 0AGC01.5VP | AGC1.5BP | 0AGC01.5VPA |
| 2A | 0AGC002.V | AGC2 | 0AGC002.VP | AGC2BP | 0AGC002.VPA |
| 2.5A | 0AGC02.5V | AGC2.5 | 0AGC02.5VP | AGC2.5BP | 0AGC2.5VPA |
| 3A | 0AGC003.V | AGC3 | 0AGC003.VP | AGC3BP | 0AGC003.VPA |
| 4A | 0AGC004.V | AGC4 | 0AGC004.VP | AGC4BP | 0AGC004.VPA |
| 5A | 0AGC005.V | AGC5 | 0AGC005.VP | AGC5BP | 0AGC005.VPA |
| 6A | 0AGC006.V | AGC6 | 0AGC006.VP | AGC6BP | 0AGC006.VPA |
| 7A | 0AGC007.V | AGC7 | --- | --- | --- |
| 7.5A | 0AGC07.5V | AGC7.5 | 0AGC07.5VP | AGC7.5BP | 0AGC07.5VPA |
| 8A | 0AGC008.V | AGC8 | --- | --- | --- |
| 10A | 0AGC010.V | AGC10 | 0AGC010.VP | AGC10BP | 0AGC010.VPA |
| 15A | 0AGC015.V | AGC15 | 0AGC015.VP | AGC15BP | 0AGC015.VPA |
| 20A | 0AGC020.V | AGC20 | 0AGC020.VP | AGC20BP | 0AGC020.VPA |
| 25A | 0AGC025.V | AGC25 | 0AGC025.VP | AGC25BP | 0AGC025.VPA |
| 30A | 0AGC030.V | AGC30 | 0AGC030.VP | AGC30BP | 0AGC030.VPA |
| 35A | 0AGC035.V | AGC35 | 0AGC035.VP | AGC35BP | 0AGC035.VPA |
| **AGU** | | | | | |
| 1A | 0AGU001.T | AGU1 | --- | --- | --- |
| 2A | 0AGU002.T | AGU2 | --- | --- | --- |
| 3A | 0AGU003.T | AGU3 | --- | --- | --- |
| 4A | 0AGU004.T | AGU4 | --- | --- | --- |
| 5A | 0AGU005.T | AGU5 | --- | --- | --- |
| 10A | 0AGU010.T | AGU10 | --- | --- | --- |
| 15A | 0AGU015.T | AGU15 | --- | --- | --- |

| CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|
| | MATERIAL# | CATALOG# | MATERIAL# | CATALOG# | NEW PACKAGING MATERIAL# |
| **AGU** | | | | | |
| 20A | 0AGU020.T | AGU20 | --- | --- | --- |
| 25A | 0AGU025.T | AGU25 | --- | --- | --- |
| 30A | 0AGU030.T | AGU30 | --- | --- | --- |
| 35A | 0AGU035.T | AGU35 | --- | --- | --- |
| 40A | 0AGU040.T | AGU40 | 0AGU040.VPG | AGU40BPG | 0AGU040.VPGA |
| 50A | 0AGU050.T | AGU50 | 0AGU050.VPG | AGU50BPG | 0AGU050.VPGA |
| 60A | 0AGU060.T | AGU60 | 0AGU060.VPG | AGU60BPG | 0AGU060.VPGA |
| **AGW** | | | | | |
| 1A | 0AGW001.V | AGW1 | --- | --- | --- |
| 1.5A | 0AGW01.5V | AGW1.5 | --- | --- | --- |
| 2.5A | 0AGW02.5V | AGW2.5 | --- | --- | --- |
| 3A | 0AGW003.V | AGW3 | --- | --- | --- |
| 4A | 0AGW004.V | AGW4 | --- | --- | --- |
| 5A | 0AGW005.V | AGW5 | 0AGW005.VP | AGW5BP | 0AGW005.VPA |
| 6A | 0AGW006.V | AGW6 | --- | --- | --- |
| 15A | 0AGW015.V | AGW15 | 0AGW015.VP | AGW15BP | 0AGW015.VPA |
| 20A | 0AGW020.V | AGW20 | 0AGW020.VP | AGW20BP | 0AGW020.VPA |
| 30A | 0AGW030.V | AGW30 | 0AGW030.VP | AGW30BP | 0AGW030.VPA |
| **AGX** | | | | | |
| 2A | 0AGX002.V | AGX2 | --- | --- | --- |
| 3A | 0AGX003.V | AGX3 | --- | --- | --- |
| 20A | 0AGX020.V | AGX20 | 0AGX020.VP | AGX20BP | 0AGX020.VPA |
| 25A | 0AGX025.V | AGX25 | 0AGX025.VP | AGX25BP | 0AGX025.VPA |
| 30A | 0AGX030.V | AGX30 | 0AGX030.VP | AGX30BP | 0AGX030.VPA |
| **GBC** | | | | | |
| 5A | 0GBC005.V | GBC5 | --- | --- | --- |
| 8A | 0GBC008.V | GBC8 | 0GBC008.VP | GBC8BP | 0GBC008.VPA |
| 16A | 0GBC016.V | GBC16 | 0GBC016.VP | GBC16BP | 0GBC016.VPA |
| 25A | 0GBC025.V | GBC25 | 0GBC025.VP | GBC25BP | 0GBC025.VPA |
| **SFE** | | | | | |
| 4A | 0SFE004.V | SFE4 | 0SFE004.VP | SFE4BP | 0SFE004.VPA |
| 6A | 0SFE006.V | SFE6 | 0SFE006.VP | SFE6BP | 0SFE006.VPA |
| 7.5A | 0SFE07.5V | SFE7.5 | 0SFE07.5VP | SFE7.5BP | 0SFE07.5VPA |
| 9A | 0SFE009.V | SFE9 | 0SFE009.VP | SFE9BP | 0SFE009.VPA |
| 14A | 0SFE014.V | SFE14 | 0SFE014.VP | SFE14BP | 0SFE014.VPA |
| 20A | 0SFE020.V | SFE20 | 0SFE020.VP | SFE20BP | 0SFE020.VPA |
| 30A | 0SFE030.V | SFE30 | 0SFE030.VP | SFE30BP | 0SFE030.VPA |



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# Glass and Ceramic Fuses

A complete line of 3 AG 1" x 1-1/4" fuses designed for battery chargers, diagnostic equipment, appliances and sophisticated electronic equipment. Available bulk, boxed, and carded. Consult your Littelfuse representative or factory for information on glass and ceramic fuses.

## 3AG SLO-BLO® Indicating Fuse

Littelfuse patented design Indicating fuse instantly shows whether fuse is blown through discoloration of the glass body. Reduces downtime by eliminating time consuming circuit testing and guesswork. This unique design offers the same characteristics as the standard 3AG Slo-Blo 313 fuse.

**Voltage Rating: 250V (1/2 – 8A), 32V (10A).**
**Approvals: UL listed: 1/2 – 8A, Recognized under the Components Program of UL: 10A, CSA Certified: 1/2 – 8A.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 313.500VID | 250V | 1/2A Indicating 3AG Slo-Blo |
| 313001VID | 250V | 1A Indicating 3AG Slo-Blo |
| 3131.50VID | 250V | 1-1/2A Indicating 3AG Slo-Blo |
| 313002VID | 250V | 2A Indicating 3AG Slo-Blo |
| 313003VID | 250V | 3A Indicating 3AG Slo-Blo |
| 313004VID | 250V | 4A Indicating 3AG Slo-Blo |
| 313005VID | 250V | 5A Indicating 3AG Slo-Blo |
| 3136.25VID | 250V | 6-1/4A Indicating 3AG Slo-Blo |
| 313007VID | 250V | 7A Indicating 3AG Slo-Blo |
| 313008VID | 250V | 8A Indicating 3AG Slo-Blo |
| 313010VID | 32V | 10A Indicating 3AG Slo-Blo |

## 3AG Fast-Acting Fuse

Fast-acting protection of electronic equipment and appliances. The circuit protection standard for cost effective reliability and performance.

**Voltage Rating: 250V (1/4 – 10A), 32V (10A – 35A).**
**Approvals: UL listed and CSA Certified.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 312.250V | 250V | 1/4A 3AG Fast-Acting |
| 312.500V | 250V | 1/2A 3AG Fast-Acting |
| 312.750V | 250V | 3/4A 3AG Fast-Acting |
| 312001V | 250V | 1A 3AG Fast-Acting |
| 3121.25V | 250V | 1·1/4A 3AG Fast-Acting |
| 31201.5V | 250V | 1·1/2A 3AG Fast-Acting |
| 312002V | 250V | 2A 3AG Fast-Acting |
| 31202.5V | 250V | 2-1/2A 3AG Fast-Acting |
| 312003V | 250V | 3A 3AG Fast-Acting |
| 312004V | 250V | 4A 3AG Fast-Acting |
| 312005V | 250V | 5A 3AG Fast-Acting |
| 312006V | 250V | 6A 3AG Fast-Acting |
| 312007V | 250V | 7A 3AG Fast-Acting |
| 312008V | 250V | 8A 3AG Fast-Acting |
| 312010V | 250V | 10A 3AG Fast-Acting |

## 3AG Slo-Blo® Fuse

3AG (313) series Slo-Blo® fuses have a time delay in the overload range, which provides superior protection for inductive loads such as motors, transformers and solenoids.

**Voltage Rating: 250V (1/4 – 8A), 32V (10A – 30A).**
**Approvals: UL listed: 1/2 – 8A, Recognized under the Components Program of UL: 10A – 30A, CSA Certified: 1/2 – 8A.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 313.250V | 250V | 1/4A 3AG Slo-Blo |
| 313.500V | 250V | 1/2A 3AG Slo-Blo |
| 313.750V | 250V | 3/4A 3AG Slo-Blo |
| 313001V | 250V | 1A 3AG Slo-Blo |
| 31201.5V | 250V | 1-1/2A 3AG Slo-Blo |
| 313002V | 250V | 2A 3AG Slo-Blo |
| 31302.5V | 250V | 2-1/2A 3AG Slo-Blo |
| 313003V | 250V | 3A 3AG Slo-Blo |
| 313004V | 250V | 4A 3AG Slo-Blo |
| 313005V | 250V | 5A 3AG Slo-Blo |
| 3136.25V | 250V | 6-1/4A 3AG Slo-Blo |
| 313008V | 250V | 8A 3AG Slo-Blo |
| 313010V | 32V | 10A 3AG Slo-Blo |
| 313015V | 32V | 15A 3AG Slo-Blo |

## 3AG Normal-Blo Fuse

3AG (311) series Normal-Blo fuses are for use in radios, amplifiers, etc. Features straight type fuse element positioned to center of fuse for easy identification of blown fuse.

**Voltage Rating: 32V.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 311005V | 32V | 5A 3AG Normal-Blo |
| 311010V | 32V | 10A 3AG Normal-Blo |
| 311015V | 32V | 15A 3AG Normal-Blo |
| 311025V | 32V | 20A 3AG Normal-Blo |


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## 8AG Normal-Blo Fuse

8AG (362) series Normal-Blo fuses are smaller in size (1/4" x 1") and are designed to be used where space limitations prevent the use of 3AG fuses.

**Voltage Rating: 32V.**
**Approvals: UL listed: 1/8 – 5A, CSA Certified: 1/4 – 5A.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 362002V | 32V | 2A 8AG Normal-Blo |
| 362005V | 32V | 5A 8AG Normal-Blo |

## 3AB Fast-Acting & Slo-Blo® Ceramic Fuse

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

**Voltage Rating: 250V (1/8 – 20A), 125V (25 – 30A).**
**Approvals: UL listed and CSA Certified: 1/8 – 15A, Recognized under the Components Program of UL: 20 – 30A.**

| BOXED | VOLTAGE RATING | DESCRIPTION |
|---|---|---|
| 314010V | 250V | 10A 3AB Fast-Acting |
| 314015V | 250V | 15A 3AB Fast-Acting |
| 314020V | 250V | 20A 3AB Fast-Acting |
| 326015V | 250V | 15A 3AB Slo-Blo |



# Circuit Breakers

**Type I – Automatic Reset**

Cycles or continuously resets until the fault is corrected. Type I circuit breakers are typically used to protect circuits which occasionally experience momentary overloads such as wiper motor and headlamp circuits where a self resetting device is preferred.

**Type II – Modified Reset**

Non-cycling, remains in open position while there is power to the circuit. Resets when ignition is turned off. Type II circuit breakers are typically used in applications where fuse replacement is objectionable, such as power window, seat and sunroof circuits.

**Type III – Manual Reset**

Manually resettable circuit breakers remain in the open position until a button, lever or other external reset device is manually depressed. Type III circuit breakers are typically used in applications where a manual reset is desired for safe diagnosis of a circuit fault.



## MINI® Circuit Breakers Standard Mini Footprint Circuit Breakers:

Designed to fit in a MINI® Blade fuse block or panel. SAE Type II used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard.

| CURRENT RATING (A) | BOXED | |
|---|---|---|
| | MATERIAL # | CATALOG # |
| 5A | 0MIB005.X | MIB5 |
| 10A | 0MIB010.X | MIB10 |
| 15A | 0MIB015.X | MIB15 |
| 20A | 0MIB020.X | MIB20 |
| 25A | 0MIB025.X | MIB25 |
| 30A | 0MIB030.X | MIB30 |



## Wide Mini Footprint Circuit Breakers

Direct factory replacement for many domestic OEM applications. Designed to fit either in an ATO® or MINI® Blade fuse block or panel. Their blade configuration is of the MINI design and fit in a standard ATO fuse slot or across two MINI slots. Available in either SAE Type I cycling or SAE Type II non-cycling used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard.

| | CURRENT RATING (A) | APPLICATION | BOXED | |
|---|---|---|---|---|
| | | | MATERIAL # | CATALOG # |
| CYCLING | 15A | Heavy Truck Headlamp | 0MMB015.X | MMB15 |
| | 20A | Automotive Headlamp | 0MMB020.X | MMB20 |
| NON-CYCLING | 10A | Heavy Duty Truck | 0MNB010.X | MNB10 |
| | 15A | Heavy Duty Truck | 0MNB015.X | MNB15 |
| | 20A | Automotive/Heavy Truck | 0MNB020.X | MNB20 |
| | 25A | Automotive/Heavy Truck | 0MNB025.X | MNB25 |
| | 30A | Automotive/Heavy Truck | 0MNB030.X | MNB30 |


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## Specialty OEM Circuit Breakers



Direct factory replacement for many domestic OEM vehicles. SAE Type I and Type II modified reset used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard. Designed to mount in ATO style fuse blocks and panels.

| CURRENT RATING (A) | APPLICATION | OEM # | BOXED | | CARDED | | |
|---|---|---|---|---|---|---|---|
| | | | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 20A | Automotive Headlamp | GM# 12040816 | --- | --- | 0ACB020.XP | ACB20 | 0ACB020.XPA |
| 30A | Power Windows, & Locks | GM# 01252240 | --- | --- | 0ACB030.XP | ACB30 | 0ACB030.XPA |
| 20A | Power Windows | Ford# 83507005 | 0FCB020.X | FCB20 | 0FCB020.XP | FCB20BP | 0FCB020.XPA |
| 25A | Windows, Seats & Locks | Ford# D9AB-14526-BA Chrysler# 4527053 | 0CCB025.X | CCB25 | 0CCB025.XP | CCB25BP | 0CCB025.XPA |



## Universal Circuit Breakers



Universal Circuit Breakers function identically and have same internal components as OEM breakers but offer the versatility of snap off terminals for greater flexibility. SAE Type II modified reset used primarily as a wiring harness protector in 12 volt DC automotive systems. Meets OEM requirements. Conforms to SAE J553C standard. Designed to mount in ATO style fuse blocks and panels.

| CURRENT RATING (A) | BOXED | | BOXED 100 | | BOXED BULK | | CARDED | | |
|---|---|---|---|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 5A | 0UCB005.X | UCB5 | BUCB005.H | BUCB5H | BUCB005.Z | BUCB5 | 0UCB005.XP | UCB5BP | 0UCB005.XPA |
| 6A | --- | --- | --- | --- | --- | --- | 0UCB006.XP | UCB6BP | 0UCB006.XPA |
| 8A | --- | --- | --- | --- | --- | --- | 0UCB008.XP | UCB8BP | 0UCB008.XPA |
| 10A | 0UCB010.X | UCB10 | BUCB010.H | BUCB10H | BUCB010.Z | BUCB10 | 0UCB010.XP | UCB10BP | 0UCB010.XPA |
| 15A | 0UCB015.X | UCB15 | BUCB015.H | BUCB15H | BUCB015.Z | BUCB15 | 0UCB015.XP | UCB15BP | 0UCB015.XPA |
| 20A | 0UCB020.X | UCB20 | BUCB020.H | BUCB20H | BUCB020.Z | BUCB20 | 0UCB020.XP | UCB20BP | 0UCB020.XPA |
| 25A | 0UCB025.X | UCB25 | BUCB025.H | BUCB25H | BUCB025.Z | BUCB25 | 0UCB025.XP | UCB25BP | 0UCB025.XPA |
| 30A | 0UCB030.X | UCB30 | BUCB030.H | BUCB30H | BUCB030.Z | BUCB30 | 0UCB030.XP | UCB30BP | 0UCB030.XPA |



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## MAXI Circuit Breakers

Direct factory replacement for many domestic OEM applications. Designed to fit a MAXI Blade fuse block or panel. Available in either SAE Type I cycling or SAE Type II non-cycling. Used primarily as a wiring harness protector in 12 volt DC automotive systems. Meet OEM requirements. Conforms to SAE J553C standard.

| | CURRENT RATING (A) | APPLICATION | OEM # | BOXED | |
|---|---|---|---|---|---|
| | | | | MATERIAL # | CATALOG # |
| CYCLING | 20A | Automotive Headlamp | GM# 12065132 | 0MCB020.X | MCB20 |
| CYCLING | 30A | Automotive Headlamp, Seats & Wipers | GM# 12088553 | 0MCB030.X | MCB30 |
| CYCLING | 40A | --- | --- | 0MCB040.X | MCB40 |
| NON-CYCLING | 10A | Automotive Power Devices<br>Heavy Truck & Auto Cooling Fan | GM# 12077842<br>Ford# FGHT-14526-KA | 0MXB020.X | MXB20 |
| NON-CYCLING | 15A | Automotive Power Window<br>Heavy Truck & Auto Cooling Fan & Power Window | GM# 12077843<br>Ford# F6HT-14526-LA | 0MXB020.X | MXB30 |

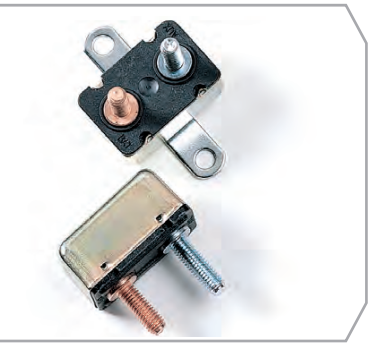





## Fuse Clip Circuit Breakers

Direct replacement for many OEM applications. Designed for glass fuses without physical alteration in the system. Fits 1-1/4" fuse clips. SAE Type II non-cycling used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard.

| CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 10A | 0CBF010.Z | CBF10 | 0CBF010.XP | CBF10BP | 0CBF010.XPA |
| 15A | 0CBF015.Z | CBF15 | 0CBF015.XP | CBF15BP | 0CBF015.XPA |
| 20A | 0CBF020.Z | CBF20 | 0CBF020.XP | CBF20BP | 0CBF020.XPA |
| 25A | 0CBF025.Z | CBF25 | 0CBF025.XP | CBF25BP | 0CBF025.XPA |
| 30A | 0CBF030.Z | CBF30 | 0CBF030.XP | CBF30BP | 0CBF030.XPA |
| 35A | 0CBF035.Z | CBF35 | 0CBF035.XP | CBF35BP | 0CBF035.XPA |
| 40A | 0CBF040.Z | CBF40 | 0CBF040.XP | CBF40BP | 0CBF040.XPA |






## Stud Type Low Voltage (6–12 Volts) Circuit Breakers

SAE Type I automatic reset provides protection in installations where it is not possible to manually reset a breaker because of location or safety requirements. Used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard. Available with mounting bracket-change part number from 812 to 813, e.g. 813005 ST.

| CURRENT RATING (A) | BOXED W/O BRACKET | | BOXED W/ BRACKET | | CARDED | | |
|---|---|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 5A | 0812005.ZXST | 812005ST | 0813005.ZXST | 813005ST | --- | --- | --- |
| 6A | 0812006.ZXST | 812006ST | 0813006.ZXST | 813006ST | --- | --- | --- |
| 8A | 0812008.ZXST | 812008ST | 0813008.ZXST | 813008ST | --- | --- | --- |
| 10A | 0812010.ZXST | 812010ST | 0813010.ZXST | 813010ST | --- | --- | --- |
| 15A | 0812015.ZXST | 812015ST | 0813015.ZXST | 813015ST | --- | --- | --- |
| 20A | 0812020.ZXST | 812020ST | 0813020.ZXST | 813020ST | 0813020.XP | 813020BP | 0813020.XPA |
| 25A | 0812025.ZXST | 812025ST | 0813025.ZXST | 813025ST | --- | --- | --- |
| 30A | 0812030.ZXST | 812030ST | 0813030.ZXST | 813030ST | 0813030.XP | 813030BP | 0813030.XPA |
| 35A | 0812035.ZXST | 812035ST | 0813035.ZXST | 813035ST | --- | --- | --- |
| 40A | 0812040.ZXST | 812040ST | 0813040.ZXST | 813040ST | 0813040.XP | 813040BP | 0813040.XPA |
| 50A | 0812050.ZXST | 812050ST | 0813050.ZXST | 813050ST | 0813050.XP | 813050BP | 0813050.XPA |


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## Hi-Amp Type III Circuit Breakers




These high amp circuit breakers are typically used in auxiliary and accessory circuits for trucks, buses, RVs and marine applications. All high amp circuit breakers comply with the SAE J1117 standard for ignition protection and have applications in battery charger systems and DC audio systems.

| CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 50A | 0185050.X | 185050 | --- | --- | --- |
| 60A | 0185060.X | 185060 | --- | --- | --- |
| 70A | 0185070.X | 185070 | --- | --- | --- |
| 80A | 0185080.X | 185080 | --- | --- | --- |
| 100A | 0185100.X | 185100 | 0185100.XP | 185100BP | 0185100.XPA |
| 120A | 0185120.X | 185120 | 0185120.XP | 185120BP | 0185120.XPA |
| 150A | --- | --- | 0185150.XP | 185150BP | 0185150.XPA |

## Mini Type I Circuit Breakers



Designed to fit in a MINI blade fuse block or panel. Conforms to SAE J553. Cycles or continuously resets until the fault is corrected. Type I circuit breakers are typically used to protect circuits which occasionally experience momentary overloads such as wiper motor and headlamp circuits where a self resetting device is preferred.

| CURRENT RATING (A) | BOXED | | CARDED | | |
|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 10A | --- | --- | 0211010.XP | 211010BP | 0211010.XPA |
| 15A | 0211015.X | 211015 | 0211015.XP | 211015BP | 0211015.XPA |
| 20A | 0211020.X | 211020 | 0211020.XP | 211020BP | 0211020.XPA |
| 25A | 0211025.X | 211025 | 0211025.XP | 211025BP | 0211025.XPA |
| 30A | 0211030.X | 211030 | 0211030.XP | 211030BP | 0211030.XPA |






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# MEGA® Bolt-on Fuse

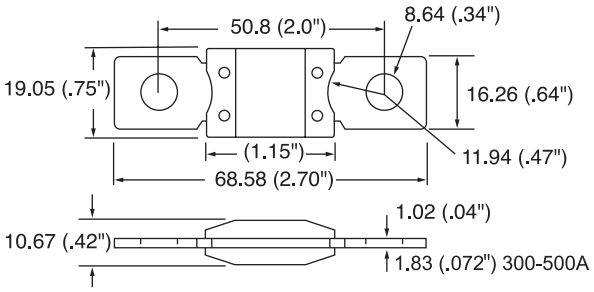
The MEGA® Fuse is designed for high current circuit protection up to 500A with "Diffusion Pill Technology." The MEGA® Fuse also provides time delay characteristics. Designed and patented by Littelfuse, the MEGA® Fuse is ideal for battery and alternator protection application and other heavy gauge cables requiring ultra-high current protection.

## MEGA® Fuse

Littelfuse patented device designed for high current protection up to 250 amperes found OEM on Ford, GM and Chrysler vehicles. Slo-Blo® feature eliminates nuisance blowing during temporary, short duration overloads. Commonly used for battery and alternator connections and other heavy gauge cables requiring ultra high current protection.

**Voltage Rating Characteristics: 32V AC/DC Slo-Blo**

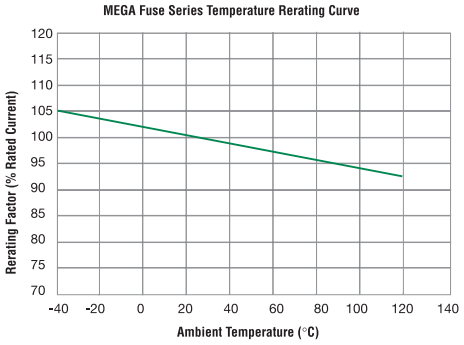
## DIMENSIONS







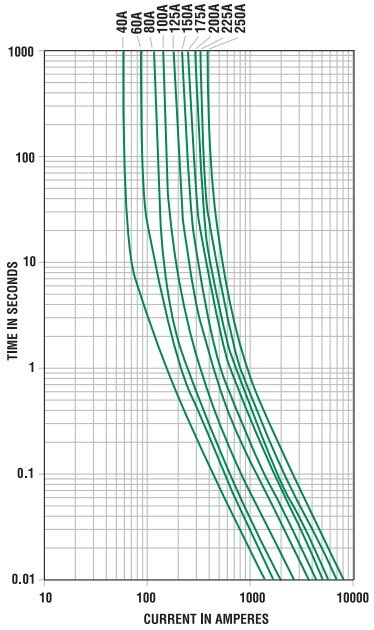
## TEMPERATURE RERATING CURVE




## TIME-CURRENT CHARACTERISTICS

| % of Rating | Opening Time Min / Max (s) | |
|---|---|---|
| | 40-250 | 300-500 |
| 75 | – / – | 14,400 s / – |
| 100 | 14,400 s / – | – / – |
| 135 | 120 s / 1800 s | – / – |
| 200 | 1 s / 15 s | 1 s / 15 s |
| 350 | 0.300 s / 5 s | 0.500 s / 5 s |
| 600 | 0.100 s / 1 s | – / – |

## TIME-CURRENT CHARACTERISTIC CURVES




## MEGA® FUSE TABLE

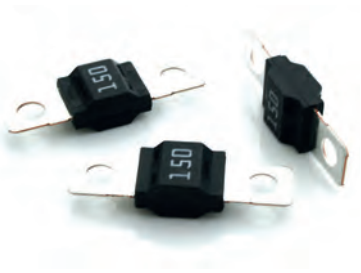
| CURRENT RATING (A) | BOXED 1PC | | BOXED 50PC | | CARDED | | |
|---|---|---|---|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 80A | 0MEG080.X | --- | --- | --- | --- | --- | 0MEG080.XPA |
| 100A | 0MEG100.X | MEG100 | 0MEG100.L | MEG100L | 0MEG100.XP | MEG100BP | 0MEG100.XPA |
| 125A | 0MEG125.X | MEG125 | 0MEG125.L | MEG125L | 0MEG125.XP | MEG125BP | 0MEG125.XPA |
| 150A | 0MEG150.X | MEG150 | 0MEG150.L | MEG150L | 0MEG150.XP | MEG150BP | 0MEG150.XPA |
| 175A | 0MEG175.X | MEG175 | 0MEG175.L | MEG175L | 0MEG175.XP | MEG175BP | 0MEG175.XPA |
| 200A | 0MEG200.X | MEG200 | 0MEG200.L | MEG200L | 0MEG200.XP | MEG200BP | 0MEG200.XPA |
| 225A | 0MEG225.X | MEG225 | 0MEG225.L | MEG225L | 0MEG225.XP | MEG225BP | 0MEG225.XPA |
| 250A | 0MEG250.X | MEG250 | 0MEG250.L | MEG250L | 0MEG250.XP | MEG250BP | 0MEG250.XPA |
| 300A | 0MEG300.X | MEG300 | 0MEG300.L | MEG300L | --- | --- | --- |
| 350A | 0MEG350.X | MEG350 | 0MEG350.L | MEG350L | --- | --- | --- |
| 400A | 0MEG400.X | MEG400 | 0MEG400.L | MEG400L | --- | --- | --- |
| 450A | 0MEG450.X | MEG450 | 0MEG450.L | MEG450L | --- | --- | --- |
| 500A | 0MEG500.X | MEG500 | 0MEG500.L | MEG500L | --- | --- | --- |




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# MIDI® Bolt-on Fuse

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

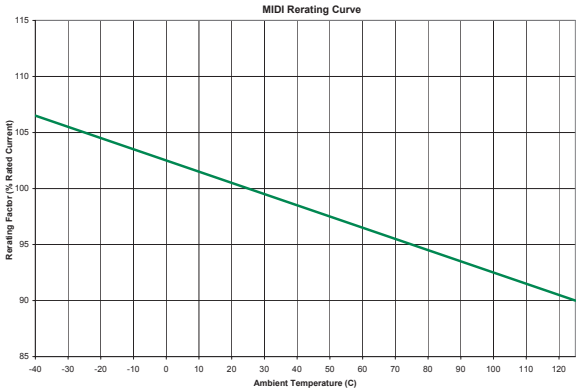



## MIDI® Fuse

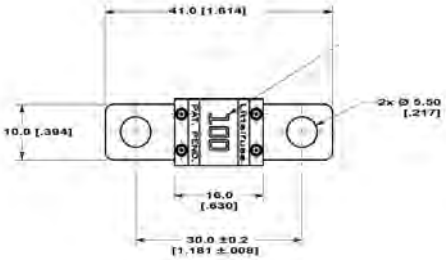
Littelfuse patented device found OEM on Chrysler and BMW. Slo-Blo® feature elimlnates nuisance blowing during temporary, short duration overloads.

**Voltage Rating Characteristics: 32V AC/DC Slo-Blo®**

## TEMPERATURE RERATING CURVE




## DIMENSIONS




## MIDI® FUSE TABLE

NEW!

| CURRENT RATING (A) | BOXED | | CARDED |
|---|---|---|---|
| | MATERIAL # | CATALOG # | MATERIAL # |
| 50A | 0MID050.X | MID50 | 0MID050.XP |
| 80A | 0MID080.X | MID80 | 0MID080.XP |
| 150A | -- | -- | 0MID150.XP |

# ZCASE Single MEGA Fuse

The Single Zcase is a Minimal Footprint Bolt Down Fuse with a wide rating range up to 250A in the same packaging size.




## ZCASE Fuse

The Time Current characteristic is similar to the well known Mega Design and can used as full wire protection until 250A. Higher ratings mostly used for typically Starter Fuse application as a protector fuse. The fuse design is optimized for a one bolt connection M6 (125 A - 250 A) or M8 (300 A - 600 A) and can used directly on a battery post or busbar connection. Littelfuse is offering a complete solution for the necessary stud and different busbar connections including some battery clamps. *See your Littelfuse respresentative for higher amperage (300A-600A) solutions.*

## ZCASE FUSE TABLE

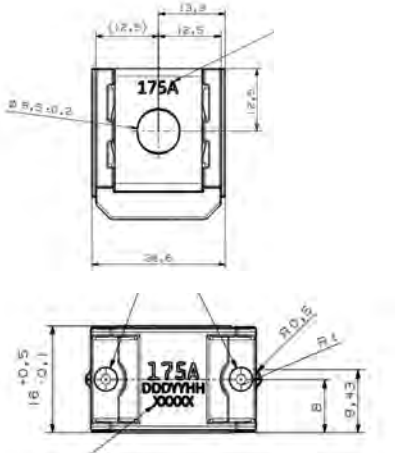
NEW!

| CURRENT RATING (A) | BULK | CARDED |
|---|---|---|
| | MATERIAL # | MATERIAL # |
| 125A | 3298125.Z | ZCAS125.XP |
| 150A | 3298150.Z | ZCAS150.XP |
| 175A | 3298175.Z | ZCAS175.XP |
| 200A | 3298200.Z | ZCAS200.XP |
| 225A | 3298225.Z | ZCAS225.XP |
| 250A | 3298250.Z | ZCAS250.XP |

## TIME-CURRENT CHARACTERISTICS

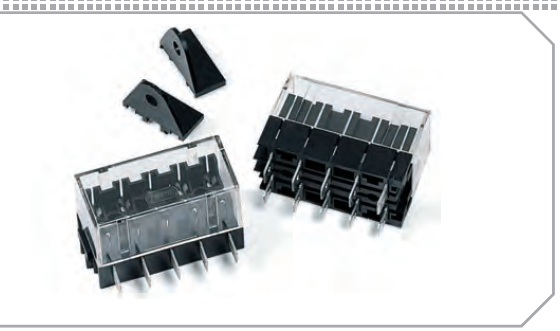
| % of Rating | Opening Time Min / Max (s) | |
|---|---|---|
| | 125A - 250A | 300A - 600A |
| 50 | – / – | 14,400 / – |
| 100 | 14,400 / – | – / – |
| 135 | 120 / 1800 | – / – |
| 200 | 1 / 15 | 1 / 40 |
| 350 | 0.300 / 5 | 0.300 / 5 |
| 500 | – / – | 0.100 / 1 (only for 500A) |
| 600 | 0.100 / 1 | 0.100 / 1 (except 600A) |

## DIMENSIONS




14
15

# Fuse Block



## ATO® Fuse Block with 1/4" Quick Connect Terminals

Use with ATO® fuses up to 15 amps. Available in 5 pole unit with removable clear protective cover. Available in side or bottom positioned 1/4" Q.C. terminal configurations. Unit with bottom Q.C. terminals includes detachable side mounting brackets.

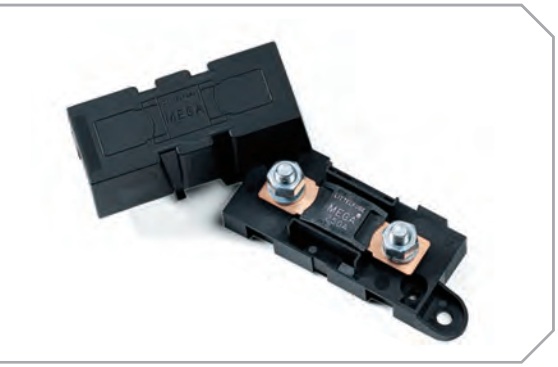
| TERMINAL STYLE | CARDED | | |
|---|---|---|---|
| | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 1/4" Q.C. side position | 03500417XP | 350417BP | 03500417XPA |
| 1/4" Q.C. bottom position (includes mounting brackets) | 03500418XP | 350418BP | 03500418XPA |



## MAXI Fuse Single Pole High Amp Block

Use with MAXI fuses up to 60 amps. Safe/easy replacement for hard to replace fusible link wire. Perfect for high amp audio applications. Interlocking block feature permits two pole position installation. Contains screw terminals. Optional dust cover available.

| BOXED | | CARDED | | |
|---|---|---|---|---|
| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0MAB0001F | MAB1 | 0MAB0001XP | MAB1BP | 0MAB0001XPA |



## MEGA® Fuse Block

Use with MEGA® fuses up to 250 amps. Ideal for battery and alternator connections and other heavy gauge cables requiring ultra high current protection. Includes protective cover. Features interconnecting pins on side of fuse block for secure multiple block configurations. Includes M8 threaded studs and hex nuts with lock washers. Fuse not included.

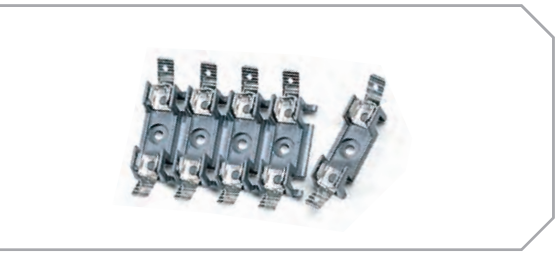
| BOXED | | | |
|---|---|---|---|
| 70-PC PACK | | 20-PC PACK | 10-PC PACK |
| MATERIAL # | CATALOG # | MATERIAL # | MATERIAL # |
| 02980900Z | 298900 | 02980900S | 02980900TXN |



## MIDI® Fuse Block

Use with MIDI® fuses up to 100 amps. Includes protective cover. Features interconnecting pins on side of fuse block for secure multiple block configurations. Includes M5 threaded studs and hex nuts with lock washers. Fuse not included.

| BOXED | |
|---|---|
| 20-PC PACK | 330-PC PACK |
| MATERIAL # | CATALOG # |
| 04980900S | 04980900ZXT |



## Omni-Blok® Fuseholder

For 1/4" x 1-1/4" glass fuses. Available in one through twelve pole units. Units may be easily broken apart as needed to obtain the desired number of poles. Rated at 20 amps, 300 volts. "354" series is bulk, "OMN" series is carded.

| PART NO. | DESC. | PART NO. | DESC. | PART NO. | DESC. |
|---|---|---|---|---|---|
| 354801-GY | 1 Pole | 354805-GY | 5 Pole | 354809-GY | 9 Pole |
| 354802-GY | 2 Pole | 354806-GY | 6 Pole | 354810-GY | 10 Pole |
| 354803-GY | 3 Pole | 354807-GY | 7 Pole | 354811-GY | 11 Pole |
| 354804-GY | 4 Pole | 354808-GY | 8 Pole | 354812-GY | 12 Pole |

| | CARDED | | |
|---|---|---|---|
| | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 2 Pole | 0OMN0002XP | OMN2 | 0OMN0002XPA |
| 4 Pole | 0OMN0004XP | OMN4 | 0OMN0004XPA |


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## Laminated Base Fuse Block with Screw Terminals

For 1/4" x 1-1/4" glass fuses. Available in one through twelve pole units. Rated at 20 amps, 300 volts.

| PART NO. | DESC. | PART NO. | DESC. | PART NO. | DESC. |
|---|---|---|---|---|---|
| 356001 | 1 Pole | 356005 | 5 Pole | 356009 | 9 Pole |
| 356002 | 2 Pole | 356006 | 6 Pole | 356010 | 10 Pole |
| 356003 | 3 Pole | 356007 | 7 Pole | 356011 | 11 Pole |
| 356004 | 4 Pole | 356008 | 8 Pole | 356012 | 12 Pole |



## ATO® Add-A-Circuit™ Kit

Allows easy installation of additional circuits without cutting or splicing. Turns one fuse slot into two while providing protection for both circuits. Maintains new car warranty. Use with ATO® Fuses up to 10 amps. Includes ATO 3, 5, 7.5 and 10 amp fuses.

| BOXED | | CARDED | | |
|---|---|---|---|---|
| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0FHA0200Z | FHA200 | 0FHA0200ZP | FHA200BP | 0FHA0200ZPA |

**Caution:** Fusetaps are not a recommended alternative for adding circuits because they can overstress the terminals in the fuse block. This situation can create a loose fitting fuse, which in turn produces excessive heat, which can cause nuisance blows, even melting of the fuse and fuse block and possibly an expensive repair in the future. When a fusetap is used, in many cases there is no fuse protecting the new circuit, a condition which can also present a hazard.




## MINI® Add-A-Circuit™ Kit

Same as ATO® Add-A-Circuit except for use with MINI® Fuses up to 10 amps. Includes MINI 3, 5, 7.5 and 10 amp fuses.

| BOXED | | CARDED | | |
|---|---|---|---|---|
| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0FHM0200Z | FHM200 | 0FHM0200ZP | FHM200BP | 0FHM0200ZPA |

## LPMINI® Add-A-Circuit™ Kit

Same as ATO® Add-A-Circuit except for use with LPMINI® Fuses up to 10 amps. Includes LPMINI 3, 5, 7.5 and 10 amp fuses.

| BOXED | CARDED |
|---|---|
| MATERIAL # | NEW PACKAGING MATERIAL # |
| FHLM0200Z | FHLM0200XPA |

NEW!




## MICRO2® Add-A-Circuit™ Kit

Same as ATO® Add-A-Circuit except for use with MICRO2® Fuses up to 10 amps. Includes MICRO2 3, 5, 7.5 and 10 amp fuses.

| BOXED | CARDED |
|---|---|
| MATERIAL # | NEW PACKAGING MATERIAL # |
| FHM20200Z | FHM20200ZPA |

NEW!

## Battery Power Feed Kit

Attaches directly to battery terminal. Allows the addition of up to 3 circuits. Includes MINI® Fuse In-line Fuseholder with protective cap. Also can be used as a frame ground. Constructed of durable brass for optimal conductivity.

| CARDED | | |
|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0BPF0001ZP | BPF1BP | 0BPF0001ZPA |






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# Fuseholders



## MINI® Fuse In-line Fuseholder with Protective Cap

Use with MINI® Fuse 2 to 20 amps. Supplied with two 4" wire leads of 14 gauge black wire. Includes protective cover for harsh environment. FHM1BP

## MINI® Fuse Heavy Duty In-Line Fuseholder with Protective Cap

Use with MINI® Fuse 25 and 30 amp fuses. Supplied with two 4" wire leads of 12 gauge orange wire. Includes protective cover for harsh environment. FHM2BP

| CARDED | | | SMART GLOW CARDED | | |
|---|---|---|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0FHM0001XP | FHM1BP | 0FHM0001XPA | 0FHM0001XPGLO | 20-1020 | 0FHM0001XPGLOA |
| 0FHM0002XP | FHM2BP | 0FHM0002XPA | --- | --- | --- |



## ATO® Fuse In-line Fuseholder with Protective Cap

Use with ATO® Fuse 1 to 20 amps. Supplied with two 4" wire leads of 16 gauge black wire. Includes protective cover for harsh environment. FHAC1BP

## ATO® Fuse Heavy Duty In-Line Fuseholder with Protective Cap

Use with ATO® 25 and 30 amp fuses for air conditioner or other heavy duty applications. Supplied with two 4" wire leads of 12 gauge orange wire. Includes protective cover for harsh environment. FHAC2BP

| CARDED | | |
|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| FHAC0001XP | FHAC1BP | FHAC0001XPA |
| FHAC0002XP | FHAC2BP | FHAC0002XPA |



## ATO® Fuse In-line Fuseholder

Use with ATO® Fuse 1 to 20 amps. Supplied with two 4" wire leads of 16 gauge black wire. FHA1BP

## ATO® Fuse Heavy Duty In-Line Fuseholder

Use with ATO® 25 and 30 amp fuses for air conditioner or other heavy duty applications. Supplied with two 4" wire leads of 12 gauge orange wire.
FHA2BP, FHA30BP includes 30 amp fuse.

| BOXED | | CARDED | | | SMART GLOW CARDED | | |
|---|---|---|---|---|---|---|---|
| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| --- | --- | 0FHA0001XP | FHA1BP | 0FHA0001XPA | 0FHA0001XPGLO | 20-1010 | 0FHA0001XPGLOA |
| --- | --- | 0FHA0002XP | FHA2BP | 0FHA0002XPA | | | |
| 0FHA0030Z | FHA30 | 0FHA0030XP | FHA30BP | 0FHA0030XPA | | | |



## ATO® Fuse In-line Panel Mount Fuseholder

Versatile fuseholder for in-line or snap mount panel applications. Interlock body design allows fuseholders to be snapped together. Use with ATO® Fuse 1 to 20 amps. Supplied with 8" loop of 14 gauge black wire. AFH1BP

## ATO® Fuse Heavy Duty In-line Panel Mount Fuseholder

Use with ATO® Fuse 25 and 30 amp fuses. Same as AFH 1 except supplied with 8" loop of 10 gauge orange wire. AFH2BP

| CARDED | | |
|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0AFH0001XP | AFH1BP | 0AFH0001XPA |
| 0AFH0002XP | AFH2BP | 0AFH0002XPA |


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## MAXI Fuse In-line Fuseholder with Protective Cap

Use with MAXI Fuse up to 60 amps. Supplied with two 6" wire leads of 6 gauge black wire. Includes protective cover for harsh environment and mounting hole for easy firewall installation.



| BOXED | |
|---|---|
| MATERIAL # | CATALOG # |
| MAHC0001ZXJ | MAH1 |

## Universal Glass Bayonet Knob In-line Fuseholder

Constructed of tough black thermoset (UL94V0). Includes 3 springs for various fuse sizes and spring-locked, bayonet type knob. Supplied with 15" loop of 14 gauge red wire. Use with Glass SFE 71/2, 9, 14, 20, AGA, AGC, AGW and AGX Fuses up to 20 amps when proper spring is installed.



| BOXED | |
|---|---|
| MATERIAL # | CATALOG # |
| 0FHP0001Z | FHP1 |

## Universal Glass Twist-Lock In-line Fuseholder

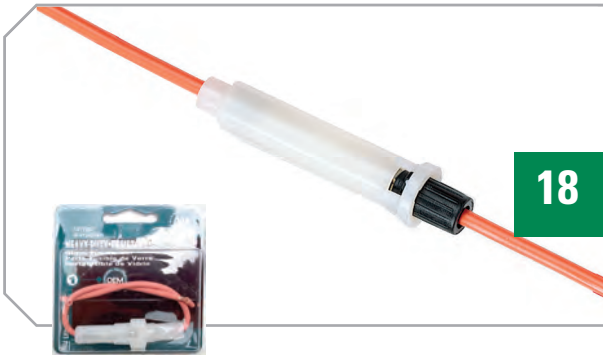
Constructed of weather resistant nylon. Simple “twist-lock” allows easy fuse removal and replacement. Supplied with 8" loop of 14 gauge black wire and one spring. Use with Glass SFE 4, 6, 71/2, 9, 14, 20, AGA, AGC, AGW and AGX Fuses up to 20 amps.



| CARDED | | |
|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0FNY0001XP | FNY1BP | 0FNY0001XPA |

## Glass Fuse Heavy Duty 30 Amp In-line Fuseholder

Spring loaded heavy duty glass fuseholder includes AGC 30 amp fuse for GM air conditioner, heater blower motors or other heavy duty applications. Supplied with two 4" wire leads of 12 gauge orange wire.
FNY20BP includes 20A AGC Fuse.



| CARDED | | |
|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # |
| 0FNY0020XP | FNY20BP | 0FNY0020XPA |
| 0FNY0030XP | FNY30BP | 0FNY0030XPA |



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## 3AG Shock-Safe Panel Fuseholders

Designed to eliminate the possibility of electrical shock, as defined in IEC standards 65 and 257. Shock-Safe fuseholders feature a low profile body, fingergrip knob and anti-tease feature that eliminates circuit interruption when knob is accidentally depressed.

**Voltage Rating: 250V.**
**Approvals: UL listed and CSA Certified. Recognized under the Components Program of UL.**

| CARDED | NEW PACKAGING MATERIAL # | VOLTAGE RATING | DESCRIPTION |
|---|---|---|---|
| 03453LF2XP | 03453LF2XPA | 20A | with 1/4" straight NEMA/DIN Quick Connect Terminal |
| 03453LF8XP | 03453LF8XPA | 20A | with 3/16" straight dual purpose solder terminal |









## Anti-Theft Battery Master Switch

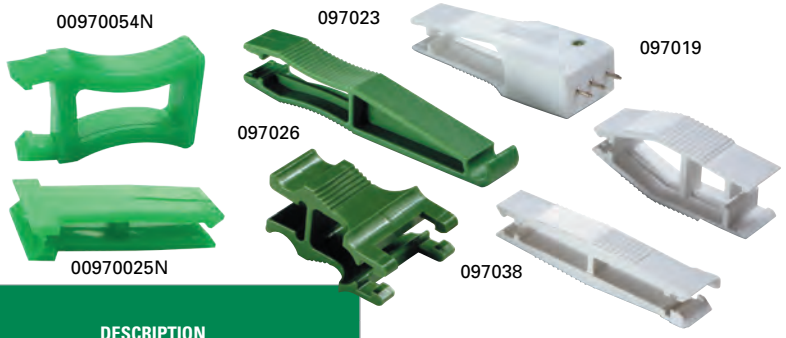
- Available in two versions, Fused and Detachable.
- Fused version maintains current to all electrical circuits such as the alarm, on-board computer, central locking system and radio memory presets.
- Detachable version features a special disconnect that allows the battery to easily be removed for anti-theft protection. Perfect for seasonal storage needs or easy off vehicle battery charging for Autos, Motorcycles, RV's, Boats, etc.
- Generate sales with the lowest cost anti-theft devices available on the market today.
- A simple turn of the knob isolates the battery and renders the vehicle unstartable.
- Makes anti-theft protection affordable when compared to expensive alarm systems.
- Eliminates complicated installation — no special electrical or mechanical expertise required.
- Fits all standard Top Mount Post batteries. Can be used with Side Mount Post batteries by using a Top Mount Adapter Post (not included).
- Works on 12 to 24 volt systems up to 135 amperes.

| CARDED | | | DESCRIPTION |
|---|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | |
| 0ATD0200XBP | ATD200BP | 0ATD0200XBPA | Anti-theft Battery Master Swtich – Detachable |
| 0ATD0300ZBP | ATD300BP | 0ATD0300ZBPA | Anti-theft Battery Master Switch – Fused |


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## Fuse Tester and Puller

Conveniently and easily tests ATO® and MINI® blade fuses either in or out of the fuse block, with or without vehicle battery power. Indicator light on tester glows bright green when fuse is good. Fuse puller end allows for easy fuse removal and replacement. 24V maximum.




## Fuse Pullers

Fuse puller allows for easy fuse removal and replacement.

| BOXED | | CARDED | | | DESCRIPTION |
|---|---|---|---|---|---|
| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | |
| 00970019X | 097019 | 00970019XP | 097019BP | 00970019XPA | For ATO® & MINI® Fuses |
| 00970023Z | 097023 | 00970023XP | 097023BP | 00970023XPA | Tri-Puller™ – for Glass Fuses, Ceramic Type Fuses, ATO® and MINI® Blade Fuses |
| 00970026N | 097026 | 00970026XP | 097026BP | 00970026XPA | For MAXI Blade Fuses |
| --- | --- | 00970035XP | --- | 00970035XPA | |
| 00970038Z | 097038 | 00970038XP | --- | 00970038XPA | For ATO® and MINI® Fuses |
| --- | --- | 00970053XP | --- | 00970053XPA | For JCASE® Fuses |
| 00970025N | --- | --- | --- | 00970025XPA | For Micro2 / Micro3 Fuses |
| 00970054N | --- | --- | --- | 00970054XPA | For MCase Fuses |

NEW!
NEW!







# CNL/CNN Fuse

## CNL / CNN Fuses

CNL fast-acting and CNN very fast-acting fuses are recommended for use on battery operated lift trucks and other low voltage battery operated equipment. Part No. example: CNN 700.

**Voltage Rating: CNL: 32V DC**
**CNN: 48V DC, 75V AC**
**Interrupting Rating: 2,500 amperes**
**Ampere Range: 10-800 degrees**
**Maximum Torque: 90 lbs.**

| MATERIAL # | CATALOG # | MATERIAL # | CATALOG # |
|---|---|---|---|
| 0CNL035.V | CNL035 | 0CNN010.V | CNN010 |
| 0CNL040.V | CNL040 | 0CNN035.V | CNN035 |
| 0CNL050.V | CNL050 | 0CNN040.V | CNN040 |
| 0CNL060.V | CNL060 | 0CNN050.V | CNN050 |
| 0CNL080.V | CNL080 | 0CNN060.V | CNN060 |
| 0CNL100.V | CNL100 | 0CNN080.V | CNN080 |
| 0CNL125.V | CNL125 | 0CNN090.V | CNN090 |
| 0CNL150.V | CNL150 | 0CNN100.V | CNN100 |
| 0CNL175.V | CNL175 | 0CNN125.V | CNN125 |
| 0CNL200.V | CNL200 | 0CNN150.V | CNN150 |
| 0CNL250.V | CNL250 | 0CNN175.V | CNN175 |
| 0CNL275.V | CNL275 | 0CNN200.V | CNN200 |
| 0CNL300.V | CNL300 | 0CNN225.V | CNN225 |
| 0CNL325.V | CNL325 | 0CNN250.V | CNN250 |
| 0CNL350.V | CNL350 | 0CNN275.V | CNN275 |
| 0CNL400.V | CNL400 | 0CNN300.V | CNN300 |
| 0CNL500.V | CNL500 | 0CNN325.V | CNN325 |
| --- | --- | 0CNN350.V | CNN350 |
| --- | --- | 0CNN400.V | CNN400 |
| --- | --- | 0CNN500.V | CNN500 |
| --- | --- | 0CNN600.V | CNN600 |
| --- | --- | 0CNN700.V | CNN700 |
| --- | --- | 0CNN800.V | CNN800 |




# Fusible Links

## Honda Fusible Links

Original equipment replacement fusible link bar for Honda Civics. Available in 45, 55 and 65 amp fuse bars. Carded merchandise only available in 3 piece assortment 094413.

## Fusible Links

Original equipment replacement fusible link bar.
Available in 30, 50, 80 and 100 amp fuse bars.

| CARDED | | | DESCRIPTION |
|---|---|---|---|
| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | |
| 00940413ZP | 094413 | 00940413ZPA | ASST Honda Fusible Link Assortment |
| 0FLC014.XP | FLC14BP | 0FLC014.XPA | Fusible Link 14 AWG |
| 0FLW014.XP | FLW14BP | 0FLW014.XPA | Fusible Link 14 AWG with Terminals |
| 0FLW016.XP | FLW16BP | 0FLW016.XPA | Fusible Link 16 AWG with Terminals |






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# Commercial Assortments

Littelfuse Assortments cover all of the professional technician's circuit protection needs. Littelfuse offers the most comprehensive circuit protection kits on the market today addressing the needs of the Professional Service Center and Road Service Operation with genuine Littelfuse OEM fuses. Littelfuse Commercial Assortments are designed for the professional installer who needs a larger quantity and variety of fuses at the point of installation. Assortments are packaged in tough plastic storage containers perfect for the parts drawer, tool box, under counter or road service vehicle.



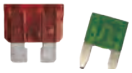
## ATO® Fuse
## 80 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940409Z | 094409 | (10) ATO 3 (10) ATO 5 (10) ATO 7.5 (10) ATO 10 (10) ATO 15 (10) ATO 20 (10) ATO 25 (10) ATO 30 |



## ATO® / MINI® Fuse
## 80 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940422Z | 094422 | (10) ATO 15 (10) ATO 20 (10) ATO 25 (10) ATO 30 (10) MINI 15 (10) MINI 20 (10) MINI 25 (10) MINI 30 (1) Puller |



## MINI® Fuse
## 80 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940551Z | 094551 | (10) MINI 3 (10) MINI 5 (10) MINI 7.5 (10) MINI 10 (10) MINI 15 (10) MINI 20 (10) MINI 25 (10) MINI 30 |



## Low Profile MINI® Fuse
## 80 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940552Z | 094552 | (10) LPMINI 3 (10) LPMINI 5 (10) LPMINI 7.5 (10) LPMINI 10 (10) LPMINI 15 (10) LPMINI 20 (10) LPMINI 25 (10) LPMINI 30 |



## JCASE® Fuse
## 14 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940480Z | 094480 | (4) JCASE 20 (4) JCASE 30 (4) JCASE 40 (1) JCASE 50 (1) JCASE 60 (1) PULLER |



## MICRO2™ Fuse
## 70 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940560ZXA | 00940560 | (10) MICRO2 5 (10) LPMINI 20 (10) MICRO2 7.5 (10) LPMINI 25 (10) LPMINI 10 (10) LPMINI 30 (10) LPMINI 15 |



## MICRO2™, MICRO3™, MCASE® Fuse
## 135 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940570ZXA | 00940570 | (10) MICRO2, MICRO3 5 (10) MICRO 30 (10) MICRO2, MICRO3 7.5 (5) MCASE 15 (10) MICRO2, MICRO3 10 (5) MCASE 20 (10) MICRO2, MICRO3 15 (5) MCASE 25 (10) MICRO 20 (5) MCASE 30 (10) MICRO 25 (5) MCASE 40 |



## MCASE® Fuse
## 80 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940565ZXA | 00940565 | (10) MCASE 20 (10) MCASE 25 (10) MCASE 30 (10) MCASE 40 |



## Low Profile JCASE® Fuse
## 16 Piece Commercial Assortment



| CARDED | MATERIAL # | CATALOG # | CONTENT |
|---|---|---|---|
| | 00940553Z | 094553 | (4) LPJCASE 20 (4) LPJCASE 30 (4) LPJCASE 40 (1) LPJCASE 50 (1) LPJCASE 60 (1) PULLER |


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SMARTe® GLOW Fuse



*It glows when it blows.*



### Smart Glow ATO® Blade Fuse
### 80 Piece Commercial Assortment



| CARDED | MATERIAL # | NEW PACKAGING MATERIAL # | CONTENT |
|---|---|---|---|
| | 00940509ZXGLO | 00940509ZXGLOA | (10) ATO 3 (10) ATO 5 (10) ATO 7.5 (10) ATO 10 (10) ATO 15 (10) ATO 20 (10) ATO 25 (10) ATO 30 |



### Smart Glow MINI® Blade Fuse
### 80 Piece Commercial Assortment



| CARDED | MATERIAL # | NEW PACKAGING MATERIAL # | CONTENT |
|---|---|---|---|
| | 00940510ZXGLO | 00940510ZXGLOA | (10) ATO 3 (10) ATO 5 (10) ATO 7.5 (10) ATO 10 (10) ATO 15 (10) ATO 20 (10) ATO 25 (10) ATO 30 |

## Caddys

### Professional Fuse Caddy

Provides a complete assortment designed to meet the professional installer's on-the-road fuse needs. Contains 180 of the most popular fuses and installation tools (includes ATO®/MINI® Tester/ Puller) needed to service passenger cars and light trucks, heavy and medium trucks and buses.

Comes in compact handy storage box perfect for the on-the-road vehicle.




| CARDED | MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | CONTENT |
|---|---|---|---|---|
| | 00940396Z | 094396 | 00940396ZXA | (5) ATO 3 (5) ATO 5 (5) ATO7.5 (10) ATO 10 (15) ATO 15 (15) ATO 20 (10) ATO 25 (15) ATO 30 (5) MIN 2 (5) MIN 3 (5) MIN 4 (5) MIN 5 5) MIN 7.5 (5) MIN 10 (5) MIN 15 (5) MIN 20 (5) MIN 25 (5) MIN 30 (5) AGC 5 (5) AGC 10 (5) AGC 15 (5) AGC 20 (5) AGC 25 (5) AGC 30 (5) SFE 14 (5) SFE20 (5) SFE 30 (1) MAX 20 (1) MAX 30 (1) MAX 40 (1) MAX 50 (1) MAX 60<br>(1) Fuse Tester and Puller (1) Tri-puller™ (1) MAXI Fuse Puller |




# Red Box

Designed by Littelfuse®, it features the exact OEM parts used for the glass, ATO®, MINI®, MAXI, PAL, JCase® and the new low profile MINI® fuses installed on over 98% of the cars, vans, light trucks and SUV's on the road today. All come packed inside one compact, portable, organized carrying case. With Red Box™ your days of wasting valuable shelf space on redundant part numbers is over. Over 500 fuses inside Red Box™ meet over 98% of the market's circuit protection needs, giving you more coverage and more profit with a lot less inventory.

## Glass Module

| MATERIAL # | CATALOG # | |
|---|---|---|
| 0RBOX005Z | RBOX5 | |
| 0AGC001.V | AGC GLASS BOX 1A | 10 |
| 0AGC002.V | AGC GLASS BOX 2A | 10 |
| 0AGC003.V | AGC GLASS BOX 3A | 10 |
| 0AGC004.V | AGC GLASS BOX 4A | 10 |
| 0AGC005.V | AGC GLASS BOX 5A | 10 |
| 0AGC006.V | AGC GLASS BOX 6A | 10 |
| 0AGC007.5V | AGC GLASS BOX 7.5A | 10 |
| 0AGC010.V | AGC GLASS BOX 10A | 10 |
| 0AGC015.V | AGC GLASS BOX 15A | 10 |
| 0AGC020.V | AGC GLASS BOX 20A | 10 |
| 0AGC025.V | AGC GLASS BOX 25A | 10 |
| 0AGC030.V | AGC GLASS BOX 30A | 10 |
| 0AGW030.V | AGW GLASS BOX 30A | 10 |
| 0AGX030.V | AGX GLASS BOX 30A | 10 |
| 0SFE004.V | SFE GLASS BOX 4A | 10 |
| 0SFE009.V | SFE GLASS BOX 9A | 10 |
| 0SFE014.V | SFE GLASS BOX 14A | 10 |
| 0SFE020.V | SFE GLASS BOX 20A | 10 |
| 0SFE030.V | SFE GLASS BOX 30A | 10 |
| | Puller Tester | 1 |

NEW!

## Micro2, Micro3, MCase®, LPJCASE Module

| MATERIAL # | | |
|---|---|---|
| 0RBOX006Z | | |
| MIC2005.V | MICRO2 Fuse 5A | 10 |
| MIC207.5V | MICRO2 Fuse 7.5A | 10 |
| MIC2010.V | MICRO2 Fuse 10A | 10 |
| MIC2015.V | MICRO2 Fuse 15A | 10 |
| MIC2020.V | MICRO2 Fuse 20A | 10 |
| MIC2025.V | MICRO2 Fuse 25A | 10 |
| MIC3005.V | MICRO3 Fuse 5A | 10 |
| MIC307.5V | MICRO3 Fuse 7.5A | 10 |
| MIC3010.V | MICRO3 Fuse 10A | 10 |
| MCAS020.V | MCASE Fuse 20A | 10 |
| MCAS025.V | MCASE Fuse 25A | 10 |
| MCAS030.V | MCASE Fuse 30A | 10 |
| MCAS040.V | MCASE Fuse 40A | 10 |
| LJCA020.V | LOW PROFILE JCASE 20A | 10 |
| LJCA025.V | LOW PROFILE JCASE 25A | 10 |
| LJCA030.V | LOW PROFILE JCASE 30A | 10 |
| LJCA040.V | LOW PROFILE JCASE 40A | 10 |
| LJCA050.V | LOW PROFILE JCASE 50A | 10 |
| LJCA060.V | LOW PROFILE JCASE 60A | 10 |

## KIT Professional Installer Case

| MATERIAL # | CATALOG # |
|---|---|
| 0RED0BOXZ | REDBOX |

## Low Profile MINI® Module

| MATERIAL # | CATALOG # | |
|---|---|---|
| 0RBOX001Z | RBOX1 | |
| LMIN005.V | 5A LOW PROFILE MINI FUSE | 5 |
| LMIN07.5V | 7.5A LOW PROFILE MINI FUSE | 10 |
| LMIN010.V | 10A LOW PROFILE MINI FUSE | 10 |
| LMIN015.V | 15A LOW PROFILE MINI FUSE | 10 |
| LMIN020.V | 20A LOW PROFILE MINI FUSE | 5 |
| LMIN025.V | 25A LOW PROFILE MINI FUSE | 5 |
| LMIN030.V | 30A LOW PROFILE MINI FUSE | 10 |
| 00970038Z | ATO/MINI PULLER ( WHITE ) | 1 |

## Blade Fuse Module

| MATERIAL # | CATALOG # | |
|---|---|---|
| 0RBOX003Z | RBOX3 | |
| 0ATO005.V | ATO BLADE FUSE BOX 5A | 10 |
| 0ATO07.5V | ATO BLADE FUSE BOX 7.5A | 10 |
| 0ATO010.V | ATO BLADE FUSE BOX 10A | 25 |
| 0ATO015.V | ATO BLADE FUSE BOX 15A | 25 |
| 0ATO020.V | ATO BLADE FUSE BOX 20A | 25 |
| 0ATO025.V | ATO BLADE FUSE BOX 25A | 25 |
| 0ATO030.V | ATO BLADE FUSE BOX 30A | 25 |
| 0ATO040.V | ATO BLADE FUSE BOX 40A | 10 |
| 0MIN005.V | MINI BLADE FUSE BOX 5A | 10 |
| 0MIN07.5V | MINI BLADE FUSE BOX 7.5A | 10 |
| 0MIN010.V | MINI BLADE FUSE BOX 10A | 20 |
| 0MIN015.V | MINI BLADE FUSE BOX 15A | 20 |
| 0MIN020.V | MINI BLADE FUSE BOX 20A | 20 |
| 0MIN025.V | MINI BLADE FUSE BOX 25A | 10 |
| 0MIN030.V | MINI BLADE FUSE BOX 30A | 10 |
| 0MAX020.V | MAXI BLADE BOX 20A | 2 |
| 0MAX030.V | MAXI BLADE BOX 30A | 2 |
| 0MAX040.V | MAXI BLADE BOX 40A | 2 |
| 0MAX050.V | MAXI BLADE BOX 50A | 2 |
| 0MAX060.V | MAXI BLADE BOX 60A | 2 |
| 0MAX070.V | MAXI BLADE BOX 70A | 1 |
| 0MAX080.V | MAXI BLADE BOX 80A | 1 |
| 00970019X | FUSE TESTER AND PULLER BOX | 1 |
| 00970038Z | ATO/MINI PULLER ( WHITE ) | 1 |
| 00970026N | MAXIFUSE PULLER BOX | 1 |
| FHAC0002Z | ATO HD INLINE FUSEHOLDER BOX | 1 |
| 0FHM0002Z | MINI HD INLINE FUSEHOLDER BOX | 1 |

NEW!

## KIT Professional Installer Case (no Glass with Module 6)

| MATERIAL # |
|---|
| 0RED0BOXZXNGA |

## KIT Professional Installer Case (no Glass)

| MATERIAL # | CATALOG # |
|---|---|
| 0RED0BOXZXNG | REDBOXNG |

## JCase® Module

| MATERIAL # | | CATALOG # |
|---|---|---|
| 0RBOX002Z | 0RBOX002ZXA | RBOX2 |
| JCAS020.V | JCASE 32V S/B BOX 20A | 2 |
| JCAS030.V | JCASE 32V S/B BOX 30A | 2 |
| JCAS040.V | JCASE 32V S/B BOX 40A | 2 |
| JCAS050.V | JCASE 32V S/B BOX 50A | 2 |
| JCAS060.V | JCASE 32V S/B BOX 60A | 2 |
| 00970053Z | JCASE PULLER | 1 |

## PAL Module

| MATERIAL # | CATALOG # | |
|---|---|---|
| 0RBOX004Z | RBOX4 | |
| 0PAL020.X | FEMALE TERM BOX 20A | 1 |
| 0PAL030.X | FEMALE TERM BOX 30A | 1 |
| 0PAL040.X | FEMALE TERM BOX 40A | 1 |
| 0PAL050.X | FEMALE TERM BOX 50A | 1 |
| 0PAL060.X | FEMALE TERM BOX 60A | 1 |
| 0PAL130.X | STRAIGHT MALE TERM BOX 30A | 1 |
| 0PAL160.X | STRAIGHT MALE TERM BOX 60A | 1 |
| 0PAL180.X | STRAIGHT MALE TERM BOX 80A | 1 |
| 0PAL1100.X | STRAIGHT MALE TERM BOX 100A | 1 |
| 0PAL1120.X | STRAIGHT MALE TERM BOX 120A | 1 |
| 0PAL230.X | 13/16" BENT MALE TERM BOX 30A | 1 |
| 0PAL240.X | 13/16" BENT MALE TERM BOX 40A | 1 |
| 0PAL250.X | 13/16" BENT MALE TERM BOX 50A | 1 |
| 0PAL260.X | 13/16" BENT MALE TERM BOX 60A | 1 |
| 0PAL270.X | 13/16" BENT MALE TERM BOX 70A | 1 |
| 0PAL280.X | 13/16" BENT MALE TERM BOX 80A | 1 |
| 0PAL2100.X | 13/16" BENT MALE TERM BOX 100A | 1 |
| 0PAL2120.X | 13/16" BENT MALE TERM BOX 120A | 1 |
| 0PAL330.X | MINI FEMALE TERM BOX 30A | 1 |
| 0PAL340.X | MINI FEMALE TERM BOX 40A | 1 |
| 0PAL430.X | 9/16" BENT MALE TERM BOX 30A | 1 |
| 0PAL440.X | 9/16" BENT MALE TERM BOX 40A | 1 |
| 0PAL450.X | 9/16" BENT MALE TERM BOX 50A | 1 |
| 0PAL480.X | 9/16" BENT MALE TERM BOX 80A | 1 |
| 0PAL4100.X | 9/16" BENT MALE TERM BOX 100A | 1 |
| 0PAL525.X | LOCKING FEMALE TERM BOX 25A | 1 |
| 0PAL530.X | LOCKING FEMALE TERM BOX 30A | 1 |



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## Value Pack Kits

The Littelfuse Value Packs contain a complete assortment of OEM fuses. Value Packs give you the tools for the protection you need — when and where you need it!
The Ultimate fuse kit for home and shop comes in a clear plastic, reusable package.




| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | DESCRIPTION |
|---|---|---|---|
| 00940400Z | 094400 | 00940400ZXA | ATO® Super Value Pack 40 |
| 00940462Z | 094462 | 00940462ZXA | MINI® Super Value Pack 40 |
| 00940475Z | 094475 | 00940475ZXA | ATO®, MINI®, MAXI Super Value Pack 21 |
| 00940550Z | 094550 | 00940550ZXA | MINI®/JCASE® Super Value Pack |
| 00940554Z | --- | 00940554ZXA | Low Profile MINI® / Low Profile JCASE® Super Value Pack 30 |
| --- | --- | 00940557ZXA | AGC Glass Super Value Pack 40 |

## Fuse Assortment Kits

Littelfuse assortments contain a variety of a type of fuse for your specific needs.







| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | DESCRIPTION | CONTENTS |
|---|---|---|---|---|
| 00940133ZP | 094133 | 00940133ZPA | European Fuse Assortment | 2 each: GBC 8A, 16A Fuses & 1 each: GBC 25 A |
| 00940134ZP | 094134 | 00940134ZPA | British Fuse Assortment | 1 each: AGC 7.5A, 15A, 20A (SFE 20) 1 each: 03000128M Amp Fuses |
| 00940135ZP | 094135 | 00940135ZPA | Japanese Fuse Assortment | 1 each: AGC 5A, 10A, 15A, 20A (SFE 20), 30A Fuses |
| 00940301ZP | 094301 | 00940301ZPA | Japanese ATO Fuse Assortment | 1 each: ATO 5A, 7.5A, 10A, 15A, 20A Fuses |
| 00940154ZP | 094154 | 00940154ZPA | American Fuse Assortment | 1 each: AGC 10A, 15A, 30A & 1 each: SFE 9A, 14A, 20A Fuses |
| 00940189ZP | 094189 | 00940189ZPA | Cellular Fuse Assortment | 1 each: AGC 1.5A, 3A Fuses & 3 each: AGC 2A Fuses |
| 00940408ZP | 094408 | 00940408ZPA | Computer Fuse Assortment | 1 each: AGC .5A Fuses & 2 each: AGC 1A, 2A Fuses |
| 00940412ZP | 094412 | 00940412ZPA | Electric Fence Assortment | 5 each: AGC 1A Fuses |
| 00940202ZP | 094202 | 00940202ZPA | ATO Fuse Assortment 6pc | 1 each: ATO 5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 00940416Z | 094416 | --- | ATO Fuse Assortment (boxed only) | 1 each: ATO 10A, 15A, 20A, 25A, 30A Fuses |
| 00940362ZP | 094362 | 00940362ZPA | Mini Fuse Assortment | 1 each: MINI 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A |
| 00940500Z | 094500 | --- | Mini Fuse Assortment (boxed only) | 1 each: MINI 10A, 15A, 20A, 25A, 30A Fuses |
| 00940506ZP | 094506 | 00940506ZPA | Low Profile Mini Fuse Assortment | 1 each: LMIN 7.5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 0AGA0001ZP | AGA1ZP | 0AGA0001ZPA | AGA Glass Fuse Assortment | 1 each: AGA 1A, 2A, 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 0AGC0001ZP | AGC1ZP | 0AGC0001ZPA | AGC Glass Fuse Assortment | 1 each: AGC 1A, 2A, 2.5A, 3A, 4A, 5A, 6A, 7.5A, 8A, 10A, 15A, 20A, 25A, 30A, 35A Fuses |
| 0AGW0001ZP | AGW1ZP | 0AGW0001ZPA | AGW/AGX Glass Fuse Assortment | 1 each: AGW 3A, 4A, 5A, 15A, 20A, 30A Fuses 1 each: AGX 3A, 20A, 25A, 30A Fuses |
| 0SFE0001ZP | SFE1ZP | 0SFE0001ZPA | SFE Glass Fuse Assortment | 1 each: SFE 4A, 6A, 7.5A, 9A Fuses & 2 each: 14A, 20A, 30A Fuses |
| --- | --- | 00940558ZPA | Micro2 Fuse Assortment | 1 each: Micro2 5A, 10A, 15A, 20A, 25A Fuses |
| --- | --- | 00940559ZPA | MCase Fuse Assortment | 1 each: 15A, 20A, 25A, 30A, 40A Fuses |

### Smart Glow

| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | DESCRIPTION | CONTENTS |
|---|---|---|---|---|
| 00940202ZPGLO | 10-1008 | 00940202ZPGLOA | ATO SmartGlow Assortment 5 PK | 1 each: ATO 10A, 15A, 20A, 25A, 30A Fuses |
| 00940362ZPGLO | 11-1008 | 00940362ZPGLOA | Mini SmartGlow Assortment 5 PK | 1 each: MINI 10A, 15A, 20A, 25A, 30A Fuses |
| 00940400ZGLO | 14-0000 | 00940400ZXGLOA | ATO SmartGlow Assortment 42 PK | 7 each: ATO GLO 5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 00940462ZGLO | 15-0000 | 00940462ZGLOA | Mini SmartGlow Assortment 36 PK | 6 each: MINI GLO 5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 00940555ZPGLO | --- | 00940555ZPGLOA | ATO SmartGlow Assortment 5 PK w/ Flashlight | 1 each: ATO GLO 10A, 15A, 20A, 25A, 30A Fuses & (1) MINI Keychain LED Flashlight |
| 00940556ZPDSGLO | 094556DSGLO | 00940556ZPDSGLOA | Mini SmartGlow Assortment 5 PK Display Strip | 1 each: Perforated Display Strip, S Hook 1 each: MINI GLO 10A, 15A, 20A, 25A, 30A Fuses & (1) MINI Keychain LED Flashlight |
| 00940556ZPGLO | 094556 | 00940556ZPGLOA | Mini SmartGlow Assortment 5 PK w/ Flashlight | 1 each: MINI GLO 10A, 15A, 20A, 25A, 30A Fuses & (1) MINI Keychain LED Flashlight |
| 0AGC0001ZPGLO | 16-1008 | 0AGC0001ZPGLOA | AGC Glass Assortment 5 PK | 1 each: AGC 5A, 10A, 15A, 20A, 30A Fuses |
| 0SFE0001ZPGLO | --- | 0SFE0001ZPGLOA | SFE Glass SmartGlow Fuse Assortment 5 PK | 1 each: SFE 7.5A, 9A, 14A & 2 each: 20A Fuses |

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# Modular Rack Systems

The new MRS Modular Rack System is a flexible offering of fuses that can ordered based on your needs. Each rack is sold individually and can be locked together to sit on a counter, or wall mounted. They are also available as a complete kit. Size charts, and color identification charts are included to serve as a guide for easy identification and replacement.




**0MRS0001ZXA**
**ATO:**

| |
|---|
| (5) ATO1 |
| (5) ATO2 |
| (5) ATO3 |
| (5) ATO4 |
| (10) ATO5 |
| (10) ATO7.5 |
| (15) ATO10 |
| (15) ATO15 |
| (20) ATO20 |
| (10) ATO25 |
| (15) ATO30 |
| (5) ATO40 |

**0MRS0002ZXA**
**MINI/MAXI:**

| |
|---|
| (5) MIN2 |
| (5) MIN3 |
| (5) MIN4 |
| (10) MIN5 |
| (10) MIN7.5 |
| (15) MIN10 |
| (20) MIN15 |
| (20) MIN20 |
| (15) MIN25 |
| (15) MIN30 |
| (2) MAX20 |
| (3) MAX30 |
| (2) MAX40 |
| (2) MAX50 |
| (3) MAX60 |

**0MRS0003ZXA**
**GLASS/CERAMIC:**

| | |
|---|---|
| (5) AGC1 | (5) AGW20 |
| (5) AGC2 | (10) SFE4 |
| (10) AGC3 | (10) SFE7.5 |
| (5) AGC5 | (10) SFE9 |
| (5) AGC7.5 | (10) SFE14 |
| (10) AGC10 | (30) SFE20 |
| (20) AGC15 | (10) SFE30 |
| (20) AGC20 | (10) GBC8 |
| (10) AGC25 | (10) GBC16 |
| (30) AGC30 | (10) GBC25 |
| (5) AGW15 | |

**0MRS0004ZXA**
**PAL/MEGA:**

| |
|---|
| (2) PAL20 |
| (4) PAL30 |
| (3) PAL40 |
| (3) PAL50 |
| (2) PAL60 |
| (1) PAL130 |
| (2) PAL160 |
| (3) PAL180 |
| (2) PAL1100 |
| (2) MEG 175 |

**0MRS0005ZXA**
**PAL/JCASE:**

| | |
|---|---|
| (1) PAL1120 | (1) PAL340 |
| (1) PAL230 | (1) PAL430 |
| (1) PAL240 | (1) PAL440 |
| (1) PAL250 | (1) PAL450 |
| (1) PAL260 | (1) PAL480 |
| (1) PAL270 | (1) PAL4100 |
| (1) PAL280 | (1) PAL525 |
| (1) PAL2100 | (1) PAL530 |
| (1) PAL2120 | (1) JCAS40 |
| (1) JCAS20 | (1) JCAS50 |
| (2) JCAS30 | (1) JCAS60 |
| (1) PAL330 | |

**0MRS0006ZXA**
**ATO/MINI ASST'S:**

| |
|---|
| (12) 094202B |
| (12) 094362B |

**0MRS0009ZXA**
**MICRO2/MICRO3/MCASE:**

| | |
|---|---|
| MIC2 5 | MIC3 7.5 |
| MIC2 7.5 | MIC3 10 |
| MIC2 10 | MIC3 15 |
| MIC2 15 | MCAS 15 |
| MIC2 20 | MCAS 20 |
| MIC2 25 | MCAS 25 |
| MIC2 30A | MCAS 30 |
| MIC3 5 | MCAS 40 |

**MRS3E**



**0MRS0007ZXA**





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## MODULAR RACK TABLE

| BOXED | | DESCRIPTION | CONTENTS |
|---|---|---|---|
| MATERIAL # | CATALOG # | | |
| 0MRS0200Z | MRS200 | ATO®-MINI®-Maxi Modular Rack System | MRS Racks 1 & 2 (Assembled) |
| 0MRS0200ZXE | MRS200E | EMPTY ATO®-MINI®-Maxi Modular Rack System | MRS Rack with ATO®-MINI®-Maxi graphics (only) |
| 0MRS0200ZXMA | MRS200MA | Marine Fuse Modular Rack System | MRS Rack with ATO®-MINI®-Maxi -Glass graphics (only) |
| 0MRS0300Z | MRS300 | ATO®-MINI®-Maxi-Glass Modular Rack System | MRS Racks 1, 2 & 3 (Assembled) |
| 0MRS0300ZXE | MRS300E | EMPTY ATO®-MINI®-Maxi-Glass Modular Rack System | Empty MRS Rack with "Glass" header (only) |

| CARDED | | NEW PACKAGING MATERIAL # | DESCRIPTION |
|---|---|---|---|
| MATERIAL # | CATALOG # | | |
| 0MRS0001Z | MRS1 | 0MRS0001ZXA | ATO® Modular Rack System |
| 0MRS0002Z | MRS2 | 0MRS0002ZXA | MINI®-Maxi Modular Rack System |
| 0MRS0003Z | MRS3 | 0MRS0003ZXA | Glass Modular Rack System |
| 0MRS0003ZXE | MRS3E | 0MRS0003EZXA | Empty Glass Modular Rack System |
| 0MRS0004Z | MRS4 | 0MRS0004ZXA | PAL-Mega Modular Rack System |
| 0MRS0005Z | MRS5 | 0MRS0005ZXA | PAL-JCASE® Modular Rack System |
| 0MRS0006Z | MRS6 | 0MRS0006ZXA | ATO®-MINI® Modular Rack System |
| 0MRS0007Z | MRS7 | 0MRS0007ZXA | Modular Rack System Complete (MRS 1, 2, 3, 4, 5 & 6) |
| 0MRS0009ZXA | MRS9 | 0MRS0009ZXA | ACS Micro2/Micro3/MCase Modular Rack System |

# Emergency Kits





Available in OEM ATO® and MINI® fuse versions.

The Littelfuse Emergency Diagnostic Fuse Kits are ideal for the glove box or trunk offering instant protection in the garage or on the road.

Packaging designed to generate impulse sales. Contains the most popular amperages.

Includes roadside tester/puller that tests, removes and installs fuses. Has its own power source that allows it to operate with or without voltage to a maximum of 24 volts.

| MATERIAL # | CATALOG # | NEW PACKAGING MATERIAL # | DESCRIPTION | CONTENTS |
|---|---|---|---|---|
| 00940362ZXA | 094362B | 00940362ZXAA | MINI® Emergency Kit | 1 each: MINI 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A Fuses |
| 00940363ZP | 094363 | 00940363ZPA | MINI® Emergency Fuse Kit | 1 each: MINI 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A Fuses (1) Puller |
| 00940365ZP | 094365 | 00940365ZPA | Motorcycle Glass Emergency Kit | 1 each: AGX 5A, 10A, 15A, 20A Fuses 2 each: AGX 8A Fuses (1) Puller |
| 00940366ZP | 094366 | 00940366ZPA | Motorcycle ATO® Emergency Kit | 1 each: ATO 5A, 7.5A, 10A, 15A, 20A Fuses (1) Puller |
| 00940367ZP | 094367 | 00940367ZPA | American Glass Emergency Kit | 1 each: SFE 9A, 14A, 20A 1 each: AGC 5A, 15A, 30A Fuses (1) Puller |
| 00940368ZP | 094368 | 00940368ZPA | European GBC Emergency Kit | 1 each: GBC 5A, 16A, 25A Fuses 2 each: GBC 8A Fuses (1) Puller |
| 00940369ZP | 094369 | 00940369ZPA | Japanese Glass Emergency Kit | 1 each: AGC 5A, 10A, 15A, 20A, 30A Fuses (1) Puller |
| 00940370ZP | 094370 | 00940370ZPA | ATO® Emergency Kit | 1 each: ATO 5A, 10A, 15A, 20A, 25A, 30A Fuses (1) Puller |
| 00940418ZP | 094418 | 00940418ZPA | ATO® Emergency Diagnostic Kit | 1 each: ATO 5A, 10A, 15A, 20A, 25A, 30A Fuses (1) ATO Puller |
| 00940419ZP | 094419 | 00940419ZPA | Glass Emergency Fuse Kit | 1 each: AGC 7.5, 15A, 20A, 25A, 30A (1) Glass Puller |
| 00940461ZP | 094461 | 00940461ZPA | MINI® Emergency Diagnostic Kit | 1 each: MINI 3A, 4A, 7.5A, 10A, 15A, 20A, 25A, 30A Fuses (1) ATO/MINI Tester/Puller |
| 00940479ZP | 094479 | 00940479ZPA | ATO®/MINI® Emergency Diagnostic Kit | 1 each: ATO 5A, 10A, 15A, 20A, 25A, 30A 1 each: MINI 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A Fuses (1) Puller |
| --- | --- | 00940561ZPA | OEM Emergency Kit - GM | 1 each: MINI 7.5A, 25A, 30A 1 each: LP MINI 10A, 15A 1 each: JCASE 20A, 30A, 40A, 50A 1 each: LPJCASE 30A, 40A, 2 each: MINI 20A 3 each: MINI 10A, 15A |
| --- | --- | 00940562ZPA | OEM Emergency Kit - Ford | 1 each: MINI 7.5A, 25A, 30A 1 each: LP MINI 10A, 15A 1 each: JCASE 20A, 30A, 40A, 50A 1 each: LPJCASE 30A, 40A, 2 each: MINI 20A 3 each: MINI 10A, 15A |
| --- | --- | 00940563ZPA | OEM Emergency Kit - Chrysler/Dodge/Jeep | 1 each: MINI 7.5A, 25A, 30A 1 each: JCASE 20A, 30A, 40A, 50A 2 each: MINI 20A 3 each: MINI 10A, 15A |







## Planogram

We developed the next generation of Retail Circuit Protection. You now can fit more product in the same planogram space — 36% more.

### MORE SPACE
for higher margin kits and assortments.

### OVER 70% GREATER PROFIT POTENTIAL
per square foot with additional SKU's

### DOUBLE PLANOGRAM PERFORMANCE
100% increase in retail dollar sales per square foot

### INCREASE MARKET COVERAGE
with high amp JCASE, MAXI and PAL Auto Link fuses

ORIGINAL EQUIPMENT MANUFACTURER

### OEM SYMBOL
Prominent on package assures consumers of quality and actual OE replacement.

### COLOR CODED
for easier stocking and consumer selection.

### RECLOSABLE
Keeps key marketing data with package until completely consumed.

### MULTI-LINGUAL
One SKU covers US, Canadian, German and Latin American markets.

| MATERIAL # | CATALOG # | DESCRIPTION |
|---|---|---|
| 00940477Z | 094477 | Our 87 SKU, 510-piece pre-pack Plan-O-Gram includes full blade-fuse coverage, as well as expanded coverage into newer parts such as Low-Profile MINI, Low-Profile JCASE, MICRO2, MICRO3, MCASE and Emergency Kits. Includes blade fuses, glass fuses, circuit breakers, Assortment and Emergency kits, fuse holders and fuse tester/pullers. Measures approximately 36"x36". |
| 00940478Z | 094478 | Our 103 SKU, 625-piece pre-pack Plan-O-Gram is our largest retail assortment featuring multiple facings of the most popular items. This assortment expands your line coverage to fill the needs of your DIY and professional dealer/installer customers as well. Measures approximately 48"x32". |

# Graphics

## Header Cards

An attractive header card is available for Littelfuse Circuit Protection product displays. Measures 36" wide x 8" high or 48" X 8" high.

| MATERIAL # | DESCRIPTION |
|---|---|
| AA979 | 36" X 8" Display Header for 36" Planogram (PART# 00940477Z) |
| AA980 | 48" X 8" Display Header for 48" Planogram (PART# 00940478Z) |








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## Packaging / Part Numbering

### Bulk Carton
The outer corrugated cardboard box that holds several cartons.



### Carton
The outer corrugated cardboard box that holds several inner packs, or bulk fuses (no inner packs).

### Pill Box
A small plastic box containing fuses. Pillboxes are snap-shut resealable.

### Blister Pack
A retail package containing one or several identical products, such as fuses, or it may contain an assortment of fuses. Blister packs are designed to fit on a peg-hook. 'Bubble pack' or 'clamshell' packages are blister packs.

### Inner Pack
A small chipboard box containing several blister packs or pillboxes.

## Standard Fuse Packaging

| Boxed Merchandise | Pieces/Box | Stnd. Pack | Order |
|---|---|---|---|
| ATO®, MINI® Fuses | 5 to a box | 100 (twenty 5 packs) | by piece |
| Glass Ceramic Fuses | 5 to a box | 50 (ten 5 packs) | by piece |
| AGU Fuses | 10 to a box | 10 (one 10 pack) | by piece |
| MAXI, PAL, MEGA®, MIDI® | 1 to a pack | 10 | by piece |
| Flashers, Circuit Breakers, Fuseholders | 1 to a pack | 10 | by piece |
| **Retail Packaged Merchandise** | **Fuses/Card** | **Stnd. Pack** | **Order** |
| ATO®, MINI® Fuses, Glass, Ceramic Fuses | 5 to a card | 5 cards/shelf pack | by card |
| MAXI, PAL, MEGA®, MIDI® Fuses | 1 to a card | 5 cards/shelf pack | by card |
| Pro•Tek Professional Packs | 25 | 5 cards/shelf pack | by card |
| Retail Carded Kits and Assortments | Various | 5 cards/shelf pack | by card |
| Assortments, Jobber Boards, Merchandisers, etc. | Various | Single unit | by unit |

### Weights, Cubes & UPC Chart

Visit our Web Site at www.littelfuse.com to view, print or download UPC, package dimensions weights and cubes. Or call customer service at 1-800-323-2480 in the United States or 1-800 LF FUSES (533-8737) in Canada for a hard copy or disk.

### Examples of order numbers

Order numbers must have between 9 characters and 15 characters. These are for added description, such as ZXPRO. When you place an order, write or type the characters without a break in the string.

**0ATO 010. VP**

**First set of four "ATO Fuses"** — **Second set of four "10 Amps"** — **"Retail pack of 5"**

**0MIN 030. ZXPRO**

**First set of four "MINI Fuses"** — **Second set of four "30 Amps"** — **"Professional Pack"**

### Mandatory characters

**First set of four:**
These identify the product group, like LMIN (Low profile MINI fuse) or 0MAX (MAXI fuses).

**Second set of four:**
These identify the product subgroup. In fuses, this usually identifies the amperage. The decimal point counts as one character, eg 010. = 10A, 100. = 100A, 01.5 = 1.5A.

**9th character:**
Inner pack quantity. See list of codes below.

**Inner Pack Codes**
*Quantity Code*

| | |
|---|---|
| I =X | 500 = u |
| 5=V | 1000 = M |
| 10 = T | 1500 = D |
| 20 = s | 2500 = E |
| 50 = L | 3000 =W |
| 100 = H | 4000 = y |
| 200 = F | 5000 = N |
| 250 = G | 10 000 = K |

### Optional characters

**10th Character**
Packaging type. P= Retail pack, B=Blister Pack.

**Last set of 5:**
May be used to give additional information, like MXGLO for SmartGlow fuses

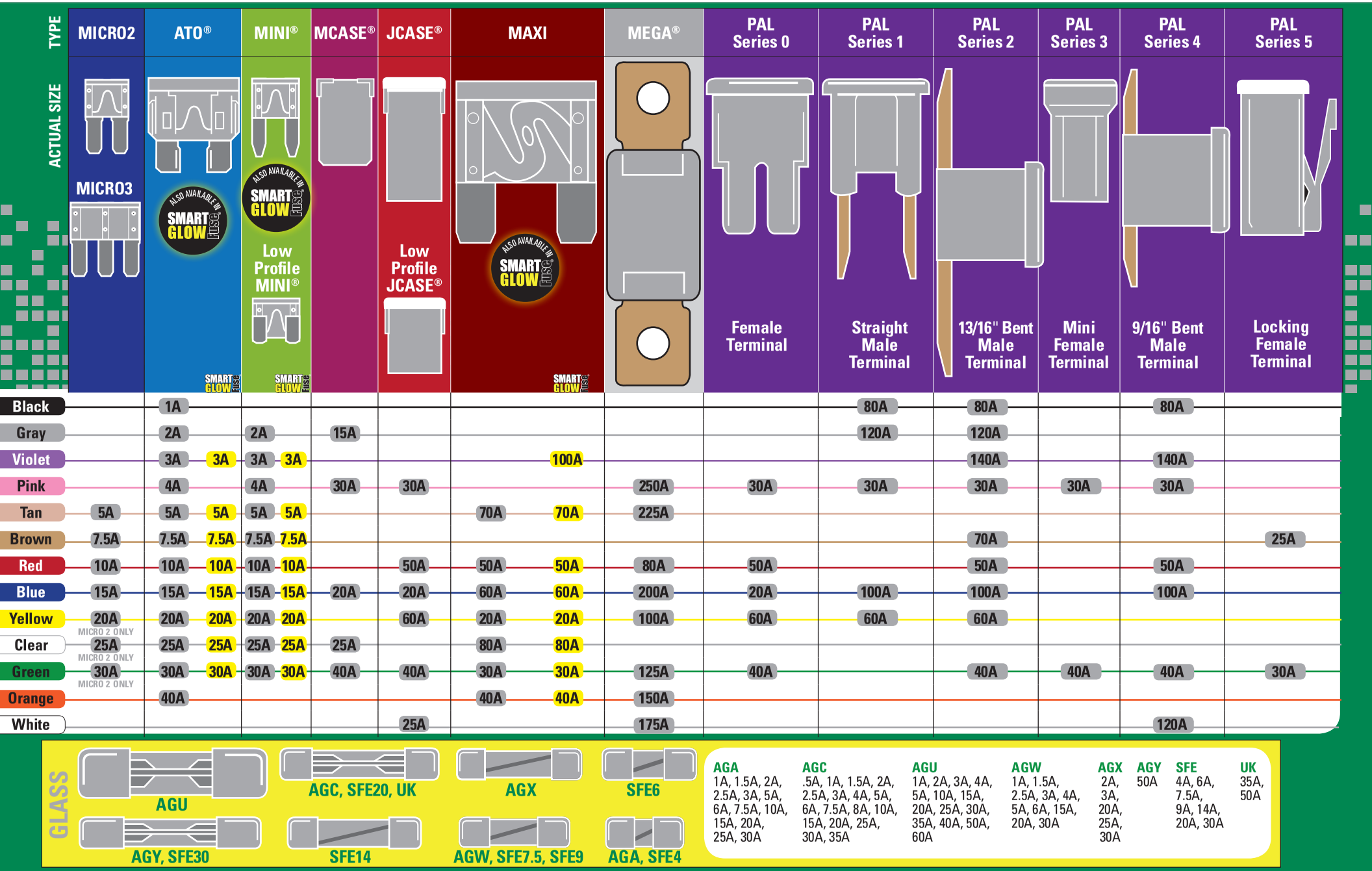

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# FUSE SELECTION CHART

ORIGINAL EQUIPMENT MANUFACTURER




| AGA | AGC | AGU | AGW | AGX | AGY | SFE | UK |
|---|---|---|---|---|---|---|---|
| 1A, 1.5A, 2A, 2.5A, 3A, 5A, 6A, 7.5A, 10A, 15A, 20A, 25A, 30A | .5A, 1A, 1.5A, 2A, 2.5A, 3A, 4A, 5A, 6A, 7.5A, 8A, 10A, 15A, 20A, 25A, 30A, 35A | 1A, 2A, 3A, 4A, 5A, 10A, 15A, 20A, 25A, 30A, 35A, 40A, 50A, 60A | 1A, 1.5A, 2.5A, 3A, 4A, 5A, 6A, 15A, 20A, 30A | 2A, 3A, 20A, 25A, 30A | 50A | 4A, 6A, 7.5A, 9A, 14A, 20A, 30A | 35A, 50A |

# FUSE HOLDER SELECTION CHART

## ATO®



**ATO® Fuse In-Line Fuseholder with Protective Cap**
Use with ATO® Fuse 1 to 20 amps.

**Part Number: FHAC1**

**ATO® Fuse Heavy Duty In-Line Fuseholder with Protective Cap**
Use with ATO® 25 and 30 amp fuses for air conditioner or other heavy duty applications.

**Part Number: FHAC2**



**ATO® Fuse In-Line Fuseholder**
Use with ATO® Fuse 1 to 20 amps.

**Part Number: FHA1**

**ATO® Fuse Heavy Duty In-Line Fuseholder**
Use with ATO® 25 and 30 amp fuses for air conditioner or other heavy duty applications. FHA30 includes 30 amp fuse.

**Part Number: FHA2, FHA30**



**ATO® Fuse In-line Panel Mount Fuseholder**
Versatile for in-line or snap mount panel applications. Interlock body design allows fuseholders to be snapped together. Use with ATO® Fuse 1 to 20 amps.

**Part Number: AFH1**

**ATO® Fuse Heavy Duty In-line Panel Mount Fuseholder**
Use with ATO® Fuse 25 and 30 amp fuses.

**Part Number: AFH2**

## SMARTGLOW Fuse® ATO® & MINI®



**ATO® and MINI® SMARTGLOW Fuse In-line Fuseholder with Protective Cap**
Clear housing to display SmartGlow fuse. Use with ATO® Fuse 1 to 20 amps and MINI® Fuse 2 to 20 amps.

**Part Number: 20-1010 (ATO®), 20-1020 (MINI®)**

## MINI®



**MINI® Fuse In-line Fuseholder with Protective Cap**
Use with MINI® Fuse 2 to 20 amps.

**Part Number: FHM1**

**MINI® Fuse Heavy Duty In-Line Fuseholder with Protective Cap**
Use with MINI® Fuse 25 and 30 amp fuses.

**Part Number: FHM2**

## MAXI



**MAXI™ Fuse In-line Fuseholder with Protective Cap**
Use with MAXI™ Fuse up to 60 amps.

**Part Number: MAH1**

## GLASS



**Universal Glass Bayonet Knob In-line Fuseholder**
Use with Glass SFE 71/2, 9, 14, 20, AGA, AGC, AGW and AGX Fuses up to 20 amps when proper spring is installed.

**Part Number: FHP1**

**Universal Glass Twist-Lock In-line Fuseholder**
Use with Glass SFE 4, 6, 71/2, 9, 14, 20, AGA, AGC, AGW and AGX Fuses up to 20 amps.

**Part Number: FNY1**

**Glass Fuse Heavy Duty 30 Amp In-line Fuseholder**
Spring loaded heavy duty glass fuseholder includes AGC 30 amp fuse for GM air conditioner, heater blower motors or other heavy duty applications. FNY 20 includes 20A AGC Fuse.

**Part Number: FNY30, FNY20**

Additional Fuse Holders are available.

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## Cross Reference Guide

| Competition | Littelfuse | Competition | Littelfuse | Competition | Littelfuse |
|---|---|---|---|---|---|
| 15600-06-20 | **350417** | BP/FLF(Amp) | **PAL0(Amp)BP** | KB-7 | **094419** |
| 15600-06-20 | **350418** | FLM(Amp) | **PAL1(Amp)** | KE-5 | **094134** |
| BP/15600-06-20 | **350417BP** | BP/FLM(Amp) | **PAL1(Amp)BP** | KG-5 | **094133** |
| BP/15600-06-20 | **340418BP** | FLB(Amp) | **PAL2(Amp)** | KG-7 | **094368** |
| BP/A-5 | **094294** | BP/FLB(Amp) | **PAL2(Amp)BP** | KJ-5 | **094135** |
| ACB 20 | **ACB20** | FLS(Amp) | **PAL3(Amp)** | KJ-7 | **094369** |
| BP/ACB 20 | **ACB20BP** | BP/FLS(Amp) | **PAL3(Amp)BP** | KJA-6 | **094301** |
| AGA(Amp) | **AGA(Amp)** | FLD(Amp) | **PAL4(Amp)** | KJA-7 | **094370** |
| BP/AGA(Amp) | **AGA(Amp)BP** | BP/FLD(Amp) | **PAL4(Amp)BP** | KM-8 | **094362** |
| AGC(Amp) | **AGC(Amp)** | FLN(Amp) | **PAL5(Amp)** | KM-9 | **094363** |
| BP/AGC(Amp) | **AGC(Amp)BP** | BP/FLN(Amp) | **PAL5(Amp)BP** | MAX(Amp) | **MAX(Amp)** |
| AGU(Amp) | **AGU(Amp)** | FMX(Amp) | **JCAS(Amp)** | BP/MAX(Amp) | **MAX(Amp)BP** |
| AGW(Amp) | **AGW(Amp)** | BP/FMX(Amp) | **JCAS(Amp)BP** | MDL(Amp) | **313(Amp)** |
| BP/AGW(Amp) | **AGW(Amp)BP** | BP/FP-A3 | **097023BP** | MKA-5 | **094366** |
| AGX(Amp) | **AGX(Amp)** | BP/FT-2 | **097019BP** | MKA-6 | **094366** |
| BP/AGX(Amp) | **AGX(Amp)BP** | BP/FT-3 | **097019BP** | MKG-6 | **094365** |
| AGY 50 | **AGY 50** | GBC(Amp) | **GBC(Amp)** | MKG-7 | **094365** |
| AK-6 | **094202** | BP/GBC(Amp) | **GBC(Amp)BP** | NO. 18 | **094292** |
| ANL (BY AMPERE) | **CNL (BY AMPERE)** | BP/HHA | **FHA200BP** | NO. 26 | **094263** |
| ANN (BY AMPERE) | **CNN (BY AMPERE)** | HHC | **FHA1** | NO. 42 | **094400** |
| AT-7 | **094370** | HHD | **FHA2** | NO. 45 | **094375** |
| ATC(Amp) | **ATO(Amp)** | HHD-12 | **094303** | NO. 70 | **094374** |
| BP/ATC(Amp) | **ATO(Amp)BP** | HHD-30 | **FHA30** | NO. 95BK | **094422** |
| VP/ATC(Amp) | **ATO(Amp)PRO** | HHF | **FHAC1** | NO. 100BK | **094409** |
| ATM(Amp) | **MIN(Amp)** | HHG | **FHAC2** | NO. 150(EMPTY) | **MRS300E** |
| BP/ATM(Amp) | **MIN(Amp)BP** | HHK | **FNY1** | NO. 160BK | **094410** |
| VP/ATM(Amp) | **MIN(Amp)PRO** | HHL | **FHM1** | NO. 200(EMPTY) | **MRS300E** |
| CB1911-(Amp) | **MCB(Amp)** | HHM | **FHM2** | NO. 201 | **097396** |
| CB1921-(Amp) | **MXB(Amp)** | HHN | **FNY30** | NO. 204(EMPTY) | **MRS300E** |
| CB212-(Amp) | **MIB(Amp)** | HHX | **MAH1** | NO. 245 | **094360** |
| CB2221-(Amp) | **MNB(Amp)** | HKP-CC | **3453LF2A** | NO. 245(EMPTY) | **MRS300E** |
| CB-5 | **094189** | HKP-HH | **3453LF8A** | NO. 500(EMPTY) | **MRS300E** |
| CBC(Amp) | **8120(Amp)ST** | HMK | **FNY30** | NO. 536 | **FLR536/552** |
| CBC(Amp)B | **8130(Amp)ST** | BP/HHC | **FHA1BP** | BP/536 | **FLR536/552BP** |
| BP/CBC-(Amp)B | **8130(Amp)BP** | BP/HHD | **FHA2BP** | NO. 552 | **FLR536/552** |
| CBF(Amp) | **CBF(Amp)** | BP/HHD 30 | **FHA30BP** | BP/552 | **FLR536/552BP** |
| BP/CBF(Amp) | **CBF(Amp)BP** | BP/HHF | **FHAC1BP** | NO. 550 | **FLR550** |
| CCB 25 | **CCB25** | BP/HHG | **FHAC2BP** | BP/550 | **FLR550BP** |
| BP/CCB 25 | **CCB25BP** | BP/HHH | **FHM200BP** | NO. 569 | **FLR569** |
| CCB 30 | **ACB30** | BP/HHK | **FNY1BP** | BP/569 | **FLR569BP** |
| BP/CCB 30 | **ACB30BP** | BP/HHL | **FHM1BP** | S-8202-(Amp) | **035408(Amp)ZXGY** |
| EF-5 | **094412** | BP/HHM | **FHM2BP** | BP/S-8202-2 | **OMN2BP** |
| EK-7 | **094367** | BP/HHN | **FNY30BP** | BP/S-8202-4 | **OMN4BP** |
| FCB 20 | **FCB20** | BP/HKP-CC | **3453LF2C** | S-8301-(# of poles) | **3460(# of poles)** |
| BP/FCB 20 | **FCB20BP** | BP/HKP-HH | **3453LF8C** | UCB(Amp) | **UCB(Amp)** |
| FP-A3 | **097023** | BP/HL | **094413** | BP/UCB(Amp) | **UCB(Amp)BP** |
| FT-2 | **097019** | BP/HMK | **FNY30BP** | SFE(Amp) | **SFE(Amp)** |
| FT-3 | **097019** | HRK | **FHP1** | BPSFE(Amp) | **SFE(Amp)BP** |
| UK-6 | **094154** | HTB-22M | **3453LF2A** | | |
| FLF(Amp) | **PAL0(Amp)** | HTB-261 | **3453LF8A** | | |

**NOTES**



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