

# Electronic fuses

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## 5 x 15mm Ferrule Fuses

### C515 (axial leads)

#### C519

##### Specifications

##### Description:

Time-delay fuse.

##### Dimensions:

5 x 15mm  
(0.197" X 0.591").

##### Construction:

Glass tube.

##### Ratings:

- Volts — 125Vac  
(3.5-7A)  
— 250Vac  
(125mA-3A)
- Amps — 125mA-7A
- IR — 25A (350mA @ 600Vac)  
— 35A (125mA-1A @ 250Vac)  
— 100A (1.25-3A @ 250Vac)  
— 400A (3.5-7A @ 125Vac)  
— 10kA (125mA-3A @ 125Vac)

**Agency Information:** CE, UL Listed File E19180, Guide JDYX 125mA-250mA and 375mA-3A, UL Recognized, File E19180, Guide JDYX2, 350mA and 3.5A-7A, CSA Certification File 53787, Class 1422-01, 125mA-250mA and 375mA-3A.

##### Features and Benefits

- Time-delay for closer sizing on inductive circuits.

##### Typical Application

- Electronic Circuits
- Printed Circuit Boards

##### Catalog Numbers (Amps)

###### With Axial Leads

|            |             |            |
|------------|-------------|------------|
| C515-125-R | C515-800-R  | C515-2.5-R |
| C515-250-R | C515-1-R    | C515-3-R   |
| C515-350-R | C515-1.25-R | C515-3.5-R |
| C515-375-R | C515-1.5-R  | C515-4-R   |
| C515-500-R | C515-1.6-R  | C515-5-R   |
| C515-600-R | C515-2-R    | C515-6-R   |
| C515-750-R | C515-2.25-R | C515-7-R   |

###### Without Axial Leads

|            |             |             |
|------------|-------------|-------------|
| C519-125-R | C519-750-R  | C519-2.25-R |
| C519-250-R | C519-1-R    | C519-2.5-R  |
| C519-350-R | C519-1.25-R | C519-3-R    |
| C519-375-R | C519-1.5-R  | C519-3.5-R  |
| C519-500-R | C519-1.6-R  | C519-4-R    |
| C519-600-R | C519-2-R    | C519-5-R    |

### C518 (axial leads)

#### C520

##### Specifications

##### Description:

Fast-acting fuse.

##### Dimensions:

5 x 15mm  
(0.197" X 0.591").

##### Construction:

Glass tube.

##### Ratings:

- Volts — 250Vac
- Amps — 100mA-5A
- IR — 35A (100mA-750mA @ 250Vac)  
— 10kA (100mA-5A @ 125Vac)  
— 100A (1.5-3.5A @ 250Vac)  
— 200A (4-5A @ 250Vac)

**Agency Information:** CE, UL Recognized File E19180, Guide JDYX2CSA Certification File 53787, Class 1422-01.

##### Features and Benefits

- Small footprint saves space in equipment.
- Fast-acting for maximum component protection.
- Available in ferrule and axial leaded configurations

##### Typical Applications

- Electronic Circuits
- Printed Circuit Boards

##### Catalog Numbers (Amps)

###### With Axial Leads

|            |            |          |
|------------|------------|----------|
| C518-100-R | C518-750-R | C518-4-R |
| C518-125-R | C518-2-R   | C518-5-R |
| C518-250-R | C518-2.5-R |          |
| C518-375-R | C518-3-R   |          |
| C518-500-R | C518-3.5-R |          |

###### Without Axial Leads

|            |            |            |
|------------|------------|------------|
| C520-100-R | C520-750-R | C520-3.5-R |
| C520-125-R | C520-1.5-R | C520-4-R   |
| C520-250-R | C520-2-R   | C520-5-R   |
| C520-375-R | C520-2.5-R |            |
| C520-500-R | C520-3-R   |            |

### C517 (axial leads)

##### Specifications

**Description:** Fast-acting fuse.

**Construction:** Glass tube.

##### Ratings:

- Volts — 350Vac\*
- Amps — 3A
- IR — 100A @ 350Vac  
— 100A @ 250Vac  
— 10kA @ 125Vac

\*350Vac/100A is UL Recognized

##### Agency Information:

CE, UL Listing File E19180, Guide JDYX, CSA Certification File 53787, Class 1422-01, UL Recognized, File E19180, Guide JDYX2.

- Small footprint saves space in equipment.
- Fast-acting for maximum component protection.
- 350Vac rating for 277V ballast circuit protection.

##### Typical Applications

- Electronic Circuits
- Printed Circuit Boards
- Electronic Ballast Protection

##### Catalog Number (Amps)

With Axial Leads  
C517-3-R

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-34970699  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)



## 5 x 20mm European (IEC) Ferrule Fuses

### S500-V (GDB-V)\* (axial leads)

#### S500 (GDB)\*

##### Specifications

**Description:** Fast-acting, low-breaking capacity fuse.

##### Construction:

Glass tube, nickel-plated brass endcaps (silver-plated endcaps, 32-125mA).

##### Ratings:

Volts — 250Vac (or less)

Amps — 32mA-10A

IR — See catalog table

**Agency Information:** CE, cURus, CSA, SEMKO, VDE, BSI, IMQ, CCC.

See data sheet for complete agency information. Not all approvals apply to all ratings.

##### Features and Benefits

- Fast-acting for maximum protection, conforms to IEC 60127-2 (160mA-10A).

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

| Catalog Numbers | IR (Amps) | I <sup>2</sup> t | Max Voltage Drop (mV) |
|-----------------|-----------|------------------|-----------------------|
| S500-32-R       | 35        | 0.000047         | 3200                  |
| S500-40-R       | 35        | 0.00011          | 2500                  |
| S500-50-R       | 35        | 0.00020          | 2400                  |
| S500-63-R       | 35        | 0.00057          | 2000                  |
| S500-80-R       | 35        | 0.0012           | 1200                  |
| S500-100-R      | 35        | 0.003            | 1100                  |
| S500-125-R      | 35        | 0.005            | 1000                  |
| S500-160-R      | 35        | 0.008            | 2000                  |
| S500-200-R      | 35        | 0.016            | 1700                  |
| S500-250-R      | 35        | 0.028            | 1400                  |
| S500-315-R      | 35        | 0.058            | 1300                  |
| S500-400-R      | 35        | 0.018            | 1100                  |
| S500-500-R      | 35        | 0.018            | 220                   |
| S500-630-R      | 35        | 0.035            | 220                   |
| S500-800-R      | 35        | 0.067            | 190                   |
| S500-1-R        | 35        | 0.60             | 200                   |
| S500-1.25-R     | 35        | 0.84             | 200                   |
| S500-1.6-R      | 35        | 1.6              | 190                   |
| S500-2-R        | 35        | 4.2              | 150                   |
| S500-2.5-R      | 35        | 6.1              | 150                   |
| S500-3.15-R     | 35        | 13               | 130                   |
| S500-4-R        | 40        | 22               | 130                   |
| S500-5-R        | 50        | 42               | 120                   |
| S500-6.3-R      | 63        | 69               | 120                   |
| S500-8-R        | 80        | -                | 120                   |
| S500-10-R       | 100       | —                | 120                   |

##### Options

Axial leads, put "V" in P/N.

\*When ordering GDB version, do not add "-R" suffix to part number.

Data Sheet: 2052 (S500), 2015 (GDB)

### S501-V (GDA-V)\* (axial leads)

#### S501 (GDA)\*

##### Specifications

**Description:** Fast-acting, high-breaking capacity fuse.

##### Construction:

Ceramic tube, nickel-plated brass endcaps (silver-plated endcaps 50mA-400mA).

##### Ratings:

Volts — 250Vac (or less)

Amps — 50mA-10A\*\*

IR — 1500A @ 250Vac

**Agency Information:** CE, cURus, SEMKO, VDE, IMQ, CCC, CSA, BSI.

See data sheet for complete agency information. Not all approvals apply to all ratings.

##### Features and Benefits

- Fast-acting for maximum protection.
- High break capacity for use in higher fault energy electronic circuitry.
- Conforming to IEC standards.

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

| Catalog Numbers | I <sup>2</sup> t | Typical Voltage Drop (mV) |
|-----------------|------------------|---------------------------|
| S501-50-R       | 0.0017           | 9000                      |
| S501-63-R       | 0.0005           | 3300                      |
| S501-80-R       | 0.0011           | 2600                      |
| S501-100-R      | 0.0018           | 2300                      |
| S501-125-R      | 0.0037           | 1900                      |
| S501-160-R      | 0.008            | 1600                      |
| S501-200-R      | 0.020            | 1350                      |
| S501-250-R      | 0.027            | 1300                      |
| S501-315-R      | 0.010            | 1400                      |
| S501-400-R      | 0.018            | 1200                      |
| S501-500-R      | 0.038            | 1050                      |
| S501-630-R      | 0.064            | 1200                      |
| S501-800-R      | 0.097            | 490                       |
| S501-1-R        | 0.146            | 330                       |
| S501-1.25-R     | 0.313            | 297                       |
| S501-1.6-R      | 0.748            | 239                       |
| S501-2-R        | 2.0              | 205                       |
| S501-2.5-R      | 3.9              | 190                       |
| S501-3.15-R     | 8.1              | 160                       |
| S501-4-R        | 14               | 160                       |
| S501-5-R        | 25               | 155                       |
| S501-6.3-R      | 48               | 150                       |
| S501-8-R        | N/A              | N/A                       |
| S501-10-R       | N/A              | N/A                       |

##### Options

Axial leads, put "V" in P/N.

\*When ordering GDA version, do not add "-R" suffix to part number.

\*\*GDA is not available above 6.3A.

Data Sheet: 2051 (S501), 2014 (GDA)

### S505-V (axial leads)

#### S505

##### Specifications

**Description:** Time-delay, high-breaking capacity fuse.

##### Construction:

Ceramic tube, silver-plated brass endcaps.

##### Ratings:

Volts — 250Vac (or less)

Amps — 500mA-12A

IR — 1500A @ 250Vac

**Agency Information:** UL, CSA, SEMKO, VDE, BSI, IMQ, PSE/JET, CCC, EK, FIMKO.

See data sheet for complete agency information. Not all approvals apply to all ratings.

##### Features and Benefits

- Time-delay performance ideal for inductive circuits.
- Conforming to IEC standards.

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

| Catalog Numbers | Typical I <sup>2</sup> t | Max Voltage Drop (mV) |
|-----------------|--------------------------|-----------------------|
| S505-500-R      | 0.188*                   | 295                   |
| S505-800-R      | 0.632*                   | 189                   |
| S505-1-R        | 1.28                     | 152.5                 |
| S505-1.25-R     | 2.22                     | 150                   |
| S505-1.6-R      | 6.78                     | 125                   |
| S505-2-R        | 9.60                     | 118.5                 |
| S505-2.5-R      | 16.60                    | 115                   |
| S505-3.15-R     | 36.60                    | 102.5                 |
| S505-4-R        | 38.45*                   | 86.5                  |
| S505-5-R        | 71.30*                   | 77.5                  |
| S505-6.3-R      | 197                      | 75                    |
| S505-8-R        | 311                      | 75                    |
| S505-10-R       | 397                      | 72                    |
| S505-12-R       | 713.7*                   | 77                    |

\*The typical I<sup>2</sup>t value was measured at 10 times of rated current under DC

##### Options

Axial leads, put "V" in P/N.

Data Sheet: 2037

## 5 x 20mm European (IEC) Ferrule Fuses

### S506-V (GDC-V)\* (axial leads)

### S506 (GDC)\*

#### Specifications

**Description:** Time-delay, low-breaking capacity fuse.

**Construction:** Glass tube, nickel-plated brass endcaps.

#### Ratings:

Volts — 250Vac (or less)

Amps — 32mA-15A\*\*

IR — 35A @ 250Vac



**Agency Information:** UR, CSA, cURus, SEMKO, VDE, BSI, IMQ, PSE/JET, CCC.

See data sheet for complete agency information. Not all approvals apply to all ratings.

#### Features and Benefits

- Time-delay compatibility for inductive circuits.
- Conforming to IEC standards.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

| Catalog Numbers | Typical I <sub>2t</sub> | Max Voltage Drop (mV) |
|-----------------|-------------------------|-----------------------|
| S506-32-R       | 0.0051                  | 1050                  |
| S506-40-R       | 0.0072                  | 920                   |
| S506-50-R       | 0.0095                  | 800                   |
| S506-63-R       | 0.021                   | 760                   |
| S506-80-R       | 0.038                   | 580                   |
| S506-100-R      | 0.045                   | 490                   |
| S506-125-R      | 0.063                   | 390                   |
| S506-160-R      | 0.093                   | 320                   |
| S506-200-R      | 0.114                   | 340                   |
| S506-250-R      | 0.265                   | 270                   |
| S506-315-R      | 0.621                   | 250                   |
| S506-400-R      | 0.872                   | 210                   |
| S506-500-R      | 0.827                   | 140                   |
| S506-630-R      | 1.33                    | 150                   |
| S506-800-R      | 2.78                    | 75                    |
| S506-1-R        | 6.45                    | 87.5                  |
| S506-1.25-R     | 10.05                   | 86                    |
| S506-1.6-R      | 21.7                    | 82                    |
| S506-2-R        | 31.6                    | 77                    |
| S506-2.5-R      | 59.4                    | 72.5                  |
| S506-3.15-R     | 96.4                    | 68.5                  |
| S506-4-R        | 71.8                    | 67                    |
| S506-5-R        | 142.5                   | 60.5                  |
| S506-6.3-R      | 237.6                   | 54                    |
| S506-8-R        | 255.8                   | 55                    |
| S506-10-R       | 450                     | 54                    |
| S506-12.5-R     | 1019.5                  | 45                    |
| S506-15-R       | 1091.7                  | 65.5                  |

#### Options

Axial leads, put "V" in P/N.

\*When ordering GDC version, do not add "-R" suffix to part number.

\*\*GDC series is not available above 6.3A.

**Data Sheet: 2016 (GDC), 4332 (S506)**

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## 5 x 20mm North American (UL) Ferrule Fuses

### GMA-V (axial leads)

#### GMA

##### Specifications

##### Description:

Fast-acting fuse.

##### Dimensions:

5 x 20mm  
(0.197" x 0.788").

##### Construction:

Glass tube,  
nickel-plated brass  
endcaps.

##### Ratings:

- Volts — 250Vac (63mA-2.5A)  
— 125Vac (3.15-15A)
- Amps — 63mA-15A
- IR — 35A (63mA- 1A @ 250Vac,  
p.f. = 0.7-0.8)  
— 10kA (63mA-6A @ 125Vac,  
p.f. = 0.7-0.8)  
— 100A (1.25-2.5A @ 250Vac,  
p.f. = 0.7-0.8)  
— 200A (7-8A @ 125Vac, p.f. = 1.0)  
— 150A (10-15A @ 125Vac,  
p.f. = 1.0)

**Agency Information:** CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-6A, UL Recognized, Guide JDYX2, File E19180, 7-15A, CSA Certified, Class 1422-01, File 53787, 0-6.

##### Features and Benefits

- Fast-acting for maximum protection.

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

###### With Axial Leads

|             |              |            |
|-------------|--------------|------------|
| GMA-V-63-R  | GMA-V-800-R  | GMA-V-4-R  |
| GMA-V-100-R | GMA-V-1-R    | GMA-V-5-R  |
| GMA-V-125-R | GMA-V-1.25-R | GMA-V-6-R  |
| GMA-V-200-R | GMA-V-1.5-R  | GMA-V-7-R  |
| GMA-V-250-R | GMA-V-1.6-R  | GMA-V-8-R  |
| GMA-V-300-R | GMA-V-2-R    | GMA-V-10-R |
| GMA-V-500-R | GMA-V-2.5-R  | GMA-V-15-R |
| GMA-V-600-R | GMA-V-3.15-R |            |
| GMA-V-750-R | GMA-V-3.5-R  |            |

###### Without Axial Leads

|           |            |          |
|-----------|------------|----------|
| GMA-63-R  | GMA-800-R  | GMA-4-R  |
| GMA-100-R | GMA-1-R    | GMA-5-R  |
| GMA-125-R | GMA-1.25-R | GMA-6-R  |
| GMA-200-R | GMA-1.5-R  | GMA-7-R  |
| GMA-250-R | GMA-1.6-R  | GMA-8-R  |
| GMA-300-R | GMA-2-R    | GMA-10-R |
| GMA-500-R | GMA-2.5-R  | GMA-15-R |
| GMA-600-R | GMA-3.15-R |          |
| GMA-750-R | GMA-3.5-R  |          |

Data Sheet: 2017

### GMC-V (axial leads)

#### GMC

##### Specifications

**Description:** Medium time-delay fuse.

**Dimensions:** 5 x 20mm  
(0.197" x 0.788").

**Construction:** Glass tube, nickel-plated brass endcaps.

##### Ratings:

- Volts — 250Vac (63mA-3.15A)  
— 125Vac (3.5-10A)
- Amps — 63mA-10A
- IR — 35A (63mA- 1A @ 250Vac,  
p.f. = 0.7-0.8)  
— 10kA (63mA-6A @ 125Vac, p.f. = 0.7-0.8)  
— 100A (1.25-3.15A @ 250Vac,  
p.f. = 0.7-0.8)  
— 200A (6.3-10A @ 125Vac, p.f. = 1.0)

**Agency Information:** CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-6.3A, UL Recognized, Guide JDYX2, File E19180, 7-8A, CSA Certified, Class 1422-01, File 53787, 0-6.3A.

##### Features and Benefits

- Conforming to UL standards.

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

###### With Axial Leads

|             |              |            |
|-------------|--------------|------------|
| GMC-V-63-R  | GMC-V-500-R  | GMC-V-2.5  |
| GMC-V-80-R  | GMC-V-600-R  | GMC-V-3.15 |
| GMC-V-100-R | GMC-V-630-R  | GMC-V-3.5  |
| GMC-V-125-R | GMC-V-750-R  | GMC-V-4    |
| GMC-V-150-R | GMC-V-800-R  | GMC-V-5    |
| GMC-V-200-R | GMC-V-1-R    | GMC-V-6    |
| GMC-V-250-R | GMC-V-1.25-R | GMC-V-6.3  |
| GMC-V-300-R | GMC-V-1.5-R  | GMC-V-7    |
| GMC-V-315-R | GMC-V-1.6-R  | GMC-V-8    |
| GMC-V-400-R | GMC-V-2-R    | GMC-V-10   |

###### Without Axial Leads

|           |            |            |
|-----------|------------|------------|
| GMC-63mA  | GMC-500-R  | GMC-2.5-R  |
| GMC-80mA  | GMC-600-R  | GMC-3.15-R |
| GMC-100mA | GMC-630-R  | GMC-3.5-R  |
| GMC-125mA | GMC-750-R  | GMC-4-R    |
| GMC-150mA | GMC-800-R  | GMC-5-R    |
| GMC-200mA | GMC-1-R    | GMC-6-R    |
| GMC-250mA | GMC-1.25-R | GMC-6.3-R  |
| GMC-300mA | GMC-1.5-R  | GMC-7-R    |
| GMC-315mA | GMC-1.6-R  | GMC-8-R    |
| GMC-400mA | GMC-2-R    | GMC-10-R   |

Data Sheet: 2018

### GMD-V (axial leads)

#### GMD

##### Specifications

**Description:** Time-delay fuse.

##### Dimensions:

5 x 20mm  
(0.197" x 0.788").

##### Construction:

Glass tube, nickel-plated brass endcaps.

##### Ratings:

- Volts — 250Vac
- Amps — 125mA-4A
- IR — 10kA (125mA-3A @ 125Vac, p.f. = 0.7-0.8)  
— 10kA (4A @ 125Vac, p.f. = 1.0)  
— 35A (125mA-1A @ 250Vac, p.f. = 0.7-0.8)  
— 100A (1.2A-3A @ 250Vac, p.f. = 0.7-0.8)  
— 200A (4A @ 250Vac, p.f. = 1.0)

**Agency Information:** CE, UL Listed Guide JDYX, File E19180, 125mA-3A, UL Recognized, Guide JDYX2, File E19180, 4A, CSA Certified, Class 1422-01, File 53787, 0-4A, PSE/JET. File 1641-31003-1001, 1.2A-4A.

##### Features and Benefits

- Time-delay compatibility for inductive circuits.
- Conforming to UL standards.

##### Typical Applications

- Electronic Circuits

##### Catalog Numbers (Amps)

###### With Axial Leads

|             |              |             |
|-------------|--------------|-------------|
| GMD-V-125-R | GMD-V-500-R  | GMD-V-1.5-R |
| GMD-V-150-R | GMD-V-600-R  | GMD-V-1.6-R |
| GMD-V-200-R | GMD-V-630-R  | GMD-V-2-R   |
| GMD-V-250-R | GMD-V-750-R  | GMD-V-2.5-R |
| GMD-V-300-R | GMD-V-800-R  | GMD-V-3-R   |
| GMD-V-315-R | GMD-V-1-R    | GMD-V-4-R   |
| GMD-V-375-R | GMD-V-1.2-R  |             |
| GMD-V-400-R | GMD-V-1.25-R |             |

###### Without Axial Leads

|           |            |           |
|-----------|------------|-----------|
| GMD-125-R | GMD-500-R  | GMD-1.5-R |
| GMD-150-R | GMD-600-R  | GMD-1.6-R |
| GMD-200-R | GMD-630-R  | GMD-2-R   |
| GMD-250-R | GMD-750-R  | GMD-2.5-R |
| GMD-300-R | GMD-800-R  | GMD-3-R   |
| GMD-315-R | GMD-1-R    | GMD-4-R   |
| GMD-375-R | GMD-1.2-R  |           |
| GMD-400-R | GMD-1.25-R |           |

Data Sheet: 2019



# $\frac{1}{4}$ " Dia. x $\frac{5}{8}$ " to 1" Length Ferrule Fuses

## AGA-V (axial leads)

### AGA

#### Specifications

**Description:** Fast-acting fuse.

**Dimensions:**  
 $\frac{1}{4}$ " x  $\frac{5}{8}$ "  
(6.4 x 15.9mm).

**Construction:**  
Glass tube.

#### Ratings:

Volts — 125Vac (or less)

Amps — 1-30A

IR — 10kA (1-1 $\frac{1}{2}$ A @ 125Vac)

— 200A (2-5A @ 125Vac)

— 1000A (6-30A @ 32Vac)

**Agency Information:** CE, Std. 248-14, UL File E19180, UL Listed, Guide JDYX 0-1 $\frac{1}{2}$ A UL Recognized, Guide JDYX2 2-12A.

#### Features and Benefits

- Fast-acting for maximum protection.
- Size rejects insertion of other fuse types.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

##### With Axial Leads\*

|                        |                        |          |
|------------------------|------------------------|----------|
| AGA-V-1                | AGA-V-5                | AGA-V-15 |
| AGA-V-1- $\frac{1}{2}$ | AGA-V-6                | AGA-V-20 |
| AGA-V-2                | AGA-V-7                | AGA-V-25 |
| AGA-V-2- $\frac{1}{2}$ | AGA-V-7- $\frac{1}{2}$ | AGA-V-30 |
| AGA-V-3                | AGA-V-10               |          |

##### Without Axial Leads

|                      |                      |        |
|----------------------|----------------------|--------|
| AGA-1                | AGA-5                | AGA-15 |
| AGA-1- $\frac{1}{2}$ | AGA-6                | AGA-20 |
| AGA-2                | AGA-7                | AGA-25 |
| AGA-2- $\frac{1}{2}$ | AGA-7- $\frac{1}{2}$ | AGA-30 |
| AGA-3                | AGA-10               |        |

\*AGA-V is UL Listed 0-5A, UL Recognized 6-12A.

## AGW

#### Specifications

**Description:** Fast-acting fuse.

**Dimensions:**  $\frac{1}{4}$ " x  $\frac{7}{8}$ "  
(6.4 x 22.2mm).

**Construction:** Glass tube.

#### Ratings:

Volts — 32Vac

Amps — 1-30A

#### Features and Benefits

- Fast-acting for maximum protection.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

|                      |                      |        |
|----------------------|----------------------|--------|
| AGW-1                | AGW-4                | AGW-15 |
| AGW-1- $\frac{1}{2}$ | AGW-5                | AGW-20 |
| AGW-2                | AGW-6                | AGW-25 |
| AGW-2- $\frac{1}{2}$ | AGW-7- $\frac{1}{2}$ | AGW-30 |
| AGW-3                | AGW-10               |        |

## AGX

#### Specifications

**Description:** Fast-acting fuse.

**Dimensions:**  $\frac{1}{4}$ " x 1"  
(6.4 x 25.4mm).

**Construction:** Glass tube.

#### Ratings:

Volts — 250Vac ( $\frac{1}{2}$ 00-2A)

— 125Vac (2 $\frac{1}{2}$ -7A)

— 32V (8-30A)

Amps —  $\frac{1}{4}$ -30A

IR — 35A ( $\frac{1}{4}$ - $\frac{1}{2}$ A @ 250Vac)

— 100A ( $\frac{3}{4}$ -2A @ 250Vac)

— 10kA ( $\frac{1}{4}$ -5A @ 125Vac)

— 1000A (5-6A @ 125Vac)

— 1000A (8-30A @ 32Vac)

**Agency Information:** CE, Std. 248-14, UL File E19180 UL Listed, Guide JDYX, 0-5A UL Recognized, Guide JDYX2, 6-20A CSA File 53787; Class 1422-01.

#### Features and Benefits

- Size rejects insertion of other fuse types.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

|                      |                      |        |
|----------------------|----------------------|--------|
| AGX- $\frac{1}{8}$   | AGX-1- $\frac{1}{2}$ | AGX-8  |
| AGX- $\frac{1}{4}$   | AGX-2                | AGX-10 |
| AGX- $\frac{3}{8}$   | AGX-2- $\frac{1}{2}$ | AGX-15 |
| AGX- $\frac{1}{2}$   | AGX-3                | AGX-20 |
| AGX- $\frac{3}{4}$   | AGX-4                | AGX-25 |
| AGX-1                | AGX-5                | AGX-30 |
| AGX-1- $\frac{1}{4}$ | AGX-6                |        |
|                      | AGX-7                |        |

# 1/4" Dia. x 1 1/4" Length Fast-acting Ferrule Fuses

## AGC (AGC-V axial leads)

### Specifications

#### Description:

Fast-acting fuse.

**Dimensions:** 1/4" x 1 1/4"  
(6.4 x 31.7mm).

**Construction:** Glass tube with nickel-plated brass endcaps.

#### Ratings:

Volts — 250Vac (1/20-10A)  
— 32Vac (12-30A)

Amps — 1/20-30A

IR — 35A (1/20-1A @ 250Vac)  
— 100A (1 1/4-3A @ 250Vac)  
— 200A (4-10A @ 250Vac)  
— 10kA (1/20-10A @ 125Vac)  
— 1000A (12-30A @ 32Vac)

**Agency Information:** CE, UL Listed, Guide JDYX, File E19180, 0-10A UL Recognized, Guide JDYX2, File E19180, 12-30A CSA Certification, Class 1422-01, File 053787, 1/20-30A.

### Features and Benefits

- Original electronic glass tube fuse.
- Fast-acting for maximum protection.
- Wide amp/volt ratings allow versatility of protecting electronic circuits.

### Typical Applications

- Electronic Circuits

### Catalog Numbers (Amps)

#### With Axial Leads

|              |               |               |
|--------------|---------------|---------------|
| AGC-V-1/20-R | AGC-V-1-R     | AGC-V-7-1/2-R |
| AGC-V-1/10-R | AGC-V-1-1/2-R | AGC-V-8-R     |
| AGC-V-1/10-R | AGC-V-1-1/2-R | AGC-V-9-R     |
| AGC-V-1/10-R | AGC-V-2-R     | AGC-V-10-R    |
| AGC-V-1/10-R | AGC-V-2-1/2-R | AGC-V-12-R    |
| AGC-V-1/10-R | AGC-V-2-1/2-R | AGC-V-14-R    |
| AGC-V-1/10-R | AGC-V-3-R     | AGC-V-15-R    |
| AGC-V-1/10-R | AGC-V-4-R     | AGC-V-20-R    |
| AGC-V-1/10-R | AGC-V-5-R     | AGC-V-25-R    |
| AGC-V-1/10-R | AGC-V-6-R     | AGC-V-30-R    |
| AGC-V-1/10-R | AGC-V-7-R     |               |

#### Without Axial Leads

|            |             |             |
|------------|-------------|-------------|
| AGC-1/20-R | AGC-1-R     | AGC-7-1/2-R |
| AGC-1/10-R | AGC-1-1/2-R | AGC-8-R     |
| AGC-1/10-R | AGC-1-1/2-R | AGC-9-R     |
| AGC-1/10-R | AGC-2-R     | AGC-10-R    |
| AGC-1/10-R | AGC-2-1/2-R | AGC-12-R    |
| AGC-1/10-R | AGC-2-1/2-R | AGC-14-R    |
| AGC-1/10-R | AGC-3-R     | AGC-15-R    |
| AGC-1/10-R | AGC-4-R     | AGC-20-R    |
| AGC-1/10-R | AGC-5-R     | AGC-25-R    |
| AGC-1/10-R | AGC-6-R     | AGC-30-R    |
| AGC-1/10-R | AGC-7-R     |             |

## ABC (ABC-V axial leads)

### Specifications

**Description:** Fast-acting fuse.

**Dimensions:** 1/4" x 1 1/4" (6.4 x 31.7mm).

**Construction:** Ceramic tube with nickel-plated brass endcaps.

#### Ratings:

Volts — 250Vac/125Vdc  
(1/4-15A, 20-30A)\*

— 250Vac (18A)

Amps — 1/4-30A

IR\*\* — 35A (1/4-1A @ 250Vac)  
— 100A (1 1/4-3A @ 250Vac)  
— 200A (4-10A @ 250Vac)  
— 750A (12-15A @ 250Vac)  
— 400A (18-20A @ 250Vac)  
— 10kA (1/4-15A @ 125Vac)  
— 1kA (18-30A @ 125Vac)  
— 10kA (1/4-15, 20A @ 125Vdc)  
— 400A (25-30A @ 125Vdc)  
— 200A (25-30A @ 125Vdc)

\*CSA approvals for 25A and 30A are at 125Vac — IR 1000A and Vdc — IR 400A (IR 1000A at 75Vdc)

\*\*Interrupting ratings measured at 70% — 80% power factor on AC. The interrupting ratings for 18A and 20A were measured at 85% — 95% power factor on AC. The interrupting ratings for 25A and 30A were measured at 89% power factor on AC.

**Agency Information:** CE, Std. 248-14 UL Listed, Guide JDYX File E19180, 1/4-15A; UL Recognized, Guide JDYX2, File E19180, 18-30A; CSA Certification, Class 1422-01 & 1422-30, File 53787, 1/4-30A.

### Features and Benefits

- Ceramic body allows for higher amp/volt rating combinations.

### Typical Applications

- Electronic Circuits

### Catalog Numbers (Amps)

#### With Axial Leads

|               |            |            |
|---------------|------------|------------|
| ABC-V-1/4-R   | ABC-V-3-R  | ABC-V-12-R |
| ABC-V-1/2-R   | ABC-V-4-R  | ABC-V-15-R |
| ABC-V-1/2-R   | ABC-V-5-R  | ABC-V-18-R |
| ABC-V-1-R     | ABC-V-6-R  | ABC-V-20-R |
| ABC-V-1-1/2-R | ABC-V-7-R  | ABC-V-25-R |
| ABC-V-2-R     | ABC-V-8-R  | ABC-V-30-R |
| ABC-V-2-1/2-R | ABC-V-10-R |            |

#### Without Axial Leads

|             |          |          |
|-------------|----------|----------|
| ABC-1/4-R   | ABC-3-R  | ABC-12-R |
| ABC-1/2-R   | ABC-4-R  | ABC-15-R |
| ABC-1/2-R   | ABC-5-R  | ABC-18-R |
| ABC-1-R     | ABC-6-R  | ABC-20-R |
| ABC-1-1/2-R | ABC-7-R  | ABC-25-R |
| ABC-2-R     | ABC-8-R  | ABC-30-R |
| ABC-2-1/2-R | ABC-10-R |          |

## GBB (GBB-V axial leads)

### Specifications

**Description:** Very fast-acting fuse.

**Dimensions:** 1/4" x 1 1/4"  
(6.4 x 31.7mm).

**Construction:** Ceramic cartridge with nickel-plated brass endcaps.

#### Ratings:

Volts — 250Vac/125Vdc

Amps — 1-30A

IR — 200A @ 250Vac  
— 200A (20-30A @ 125Vac/dc)  
— 10,000A (1A -15A @ 125Vac/dc)

### Agency Information:

CE, Std. 248-14, UL Recognized, 1-30, 125Vdc/250Vac, File E56412, Guide JFHR2, CSA Accepted, 1-30, 125Vdc/250Vac, File 53787, Class 1422-30.

### Features and Benefits

- Very fast-acting performance allows protection of highly sensitive electronic circuitry.

### Typical Applications

- Electronic Circuits

### Catalog Numbers (Amps)

#### With Axial Leads

|               |            |            |
|---------------|------------|------------|
| GBB-V-1-R     | GBB-V-6-R  | GBB-V-15-R |
| GBB-V-1-1/2-R | GBB-V-7-R  | GBB-V-20-R |
| GBB-V-2-R     | GBB-V-8-R  | GBB-V-25-R |
| GBB-V-3-R     | GBB-V-9-R  | GBB-V-30-R |
| GBB-V-4-R     | GBB-V-10-R |            |
| GBB-V-5-R     | GBB-V-12-R |            |

#### Without Axial Leads

|             |          |          |
|-------------|----------|----------|
| GBB-1-R     | GBB-6-R  | GBB-15-R |
| GBB-1-1/2-R | GBB-7-R  | GBB-20-R |
| GBB-2-R     | GBB-8-R  | GBB-25-R |
| GBB-3-R     | GBB-9-R  | GBB-30-R |
| GBB-4-R     | GBB-10-R |          |
| GBB-5-R     | GBB-12-R |          |



# 1/4" Dia. x 1 1/4" Length Time-delay Ferrule Fuses

## MDL-V (axial leads)

### MDL

#### Specifications

##### Description:

Time-delay fuse.

**Dimensions:** 1/4" x 1 1/4"  
(6.4 x 31.7mm).

**Construction:** Glass tube with nickel-plated brass endcaps.

##### Ratings:

Volts — 250Vac (1/6-8A)  
— 32Vac (9-30A)

Amps — 1/6-30A

IR\* — 35A (1/6-1A @ 250Vac)  
— 100A (1 1/4-3A @ 250Vac)  
— 200A (4-8A @ 250Vac)  
— 10000A (1/6-8A @ 125Vac)  
— 1000A (9-30A @ 32Vac)

\*Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 198L.

**Agency Information:** CE, UL Listed, Guide JDYX, File E19180, 1/6-8A; CSA Certification Class 1422-01, 1/6-8A; UL Recognized, Guide JDYX2, File E19180, 9-30A; CSA Component Acceptance, Class 142230, 9-30A.

#### Features and Benefits

- Time-delay allows close sizing on inductive circuits.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

##### With Axial Leads

|              |               |            |
|--------------|---------------|------------|
| MDL-V-1/6-R  | MDL-V-1-R     | MDL-V-7-R  |
| MDL-V-1/10-R | MDL-V-1 1/4-R | MDL-V-8-R  |
| MDL-V-1/8-R  | MDL-V-1 1/2-R | MDL-V-9-R  |
| MDL-V-3/10-R | MDL-V-2-R     | MDL-V-10-R |
| MDL-V-1/6-R  | MDL-V-2 1/4-R | MDL-V-12-R |
| MDL-V-1/4-R  | MDL-V-2 1/2-R | MDL-V-15-R |
| MDL-V-3/10-R | MDL-V-3-R     | MDL-V-20-R |
| MDL-V-1/8-R  | MDL-V-4-R     | MDL-V-25*  |
| MDL-V-1/2-R  | MDL-V-5-R     | MDL-V-30*  |
| MDL-V-3/4-R  | MDL-V-6-R     |            |

##### Without Axial Leads

|            |             |          |
|------------|-------------|----------|
| MDL-1/6-R  | MDL-1-R     | MDL-7-R  |
| MDL-1/10-R | MDL-1 1/4-R | MDL-8-R  |
| MDL-1/8-R  | MDL-1 1/2-R | MDL-9-R  |
| MDL-3/10-R | MDL-2-R     | MDL-10-R |
| MDL-1/6-R  | MDL-2 1/4-R | MDL-12-R |
| MDL-1/4-R  | MDL-2 1/2-R | MDL-15-R |
| MDL-3/10-R | MDL-3-R     | MDL-20-R |
| MDL-1/8-R  | MDL-4-R     | MDL-25*  |
| MDL-1/2-R  | MDL-5-R     | MDL-30*  |
| MDL-3/4-R  | MDL-6-R     |          |

\*MDL-25 & MDL-30 are not available in RoHS compliant construction.

Data Sheet:2004

## MDQ-V (axial leads)

### MDQ

#### Specifications

##### Description:

Dual-element, time-delay fuse.

**Dimensions:** 1/4" x 1 1/4"  
(6.4 x 31.7mm).

**Construction:** Glass tube with nickel-plated brass endcaps.

##### Ratings:

Volts — 250Vac (1/100-7A)  
— 32Vac (7 1/2-15A)

Amps — 1/100-15A

IR — 35A (1/100-1A @ 250Vac)  
— 100A (1 1/4-3A @ 250Vac)  
— 200A (4-7A @ 250Vac)  
— 1000A (7 1/2-12A @ 32Vac)

**Agency Information:** Std. 248-14, UL Listed, File E19180; Guide JDYX, 1/6-7A CSA Certification, File 47233, Class 1422-01, 1/6-7A, UL Recognized, Guide JDYX2, File E19180, 7.1-30A.

#### Features and Benefits

- Dual-element design allows closer sizing to inductive circuits than any other fuses.

#### Typical Applications

- Electronic Relay and Control Circuits

#### Catalog Numbers (Amps)

##### With Axial Leads

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| MDQ-V-1/100 | MDQ-V-1/50  | MDQ-V-1-1/2 | MDQ-V-5     |
| MDQ-V-1/50  | MDQ-V-1/25  | MDQ-V-1-1/4 | MDQ-V-6     |
| MDQ-V-1/25  | MDQ-V-1/10  | MDQ-V-1-1/8 | MDQ-V-6 1/2 |
| MDQ-V-1/10  | MDQ-V-1/5   | MDQ-V-2     | MDQ-V-7     |
| MDQ-V-1/5   | MDQ-V-1/2   | MDQ-V-2 1/4 | MDQ-V-7 1/2 |
| MDQ-V-1/2   | MDQ-V-1     | MDQ-V-2 1/2 | MDQ-V-8     |
| MDQ-V-1 1/2 | MDQ-V-1 1/4 | MDQ-V-2 3/4 | MDQ-V-9     |
| MDQ-V-1 1/2 | MDQ-V-1 1/2 | MDQ-V-3     | MDQ-V-10    |
| MDQ-V-1 1/2 | MDQ-V-1 3/4 | MDQ-V-3 1/2 | MDQ-V-12    |
| MDQ-V-1 1/2 | MDQ-V-1 3/4 | MDQ-V-4     | MDQ-V-15    |

##### Without Axial Leads

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| MDQ-1/100 | MDQ-1/50  | MDQ-1-1/2 | MDQ-5     |
| MDQ-1/50  | MDQ-1/25  | MDQ-1-1/4 | MDQ-6     |
| MDQ-1/25  | MDQ-1/10  | MDQ-1-1/8 | MDQ-6 1/2 |
| MDQ-1/10  | MDQ-1/5   | MDQ-2     | MDQ-7     |
| MDQ-1/5   | MDQ-1/2   | MDQ-2 1/4 | MDQ-7 1/2 |
| MDQ-1/2   | MDQ-1     | MDQ-2 1/2 | MDQ-8     |
| MDQ-1 1/2 | MDQ-1 1/4 | MDQ-2 3/4 | MDQ-9     |
| MDQ-1 1/2 | MDQ-1 1/2 | MDQ-3     | MDQ-10    |
| MDQ-1 1/2 | MDQ-1 3/4 | MDQ-3 1/2 | MDQ-12    |
| MDQ-1 1/2 | MDQ-1 3/4 | MDQ-4     | MDQ-15    |

Data Sheet: 2044

## MDA-V (axial leads)

### MDA

#### Specifications

##### Description:

Time-delay fuse.

**Dimensions:** 1/4" x 1 1/4" (6.35 x 31.75mm).

**Construction:** Ceramic tube with nickel-plated brass endcaps.

##### Ratings:

Volts — 250Vac (or less)  
— 125Vdc (20A- 30A)

Amps — 1/4-30A

IR\*\* — 35A (1/4-1A @ 250Vac)

— 100A (1 1/2-2A @ 250Vac)  
— 200A (2 1/2-10A @ 250Vac)  
— 750A (12-15A @ 250Vac)  
— 1500A (20-30A @ 250Vac)  
— 10kA (1/4-30A @ 125Vac)  
— 10kA (20-30A @ 125Vdc)

\*\*Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 248.

**Agency Information:** CE, Std. 248-14, UL Listed, Guide JDYX, File E19180, 0-20A CSA Certification, Class 1422-01, File 53787, 0-20A. UL Recognized, Guide JDYX2, File E19180, 25-30A, CSA Component Acceptance, Class 1422-30, 25-30A

#### Features and Benefits

- Ceramic body allows for higher amp/volt rating combinations.
- Inventory consolidation by replacing MDL fuses allows for reduced SKU investment and minimizing potential for misapplying fuse.

#### Typical Applications

- Electronic Circuits

#### Catalog Numbers (Amps)

##### With Axial Leads

|               |            |            |
|---------------|------------|------------|
| MDA-V-1/4-R   | MDA-V-3-R  | MDA-V-12-R |
| MDA-V-1/8-R   | MDA-V-4-R  | MDA-V-15-R |
| MDA-V-1/8-R   | MDA-V-5-R  | MDA-V-20-R |
| MDA-V-1-R     | MDA-V-6-R  | MDA-V-25-R |
| MDA-V-1 1/2-R | MDA-V-7-R  | MDA-V-30-R |
| MDA-V-2-R     | MDA-V-8-R  |            |
| MDA-V-2 1/2-R | MDA-V-10-R |            |

##### Without Axial Leads

|             |          |           |
|-------------|----------|-----------|
| MDA-1/4-R   | MDA-3-R  | MDA-12-R  |
| MDA-1/8-R   | MDA-4-R  | MDA-15-R  |
| MDA-1/8-R   | MDA-5-R  | MDA-20-R  |
| MDA-1-R     | MDA-6-R  | MDA-25A-R |
| MDA-1 1/2-R | MDA-7-R  | MDA-30A-R |
| MDA-2-R     | MDA-8-R  |           |
| MDA-2 1/2-R | MDA-10-R |           |

Data Sheet: 2002



## PC Board Mount Fuse Holders

### HTC-45M



#### PCB Vertical Mount

##### Specifications

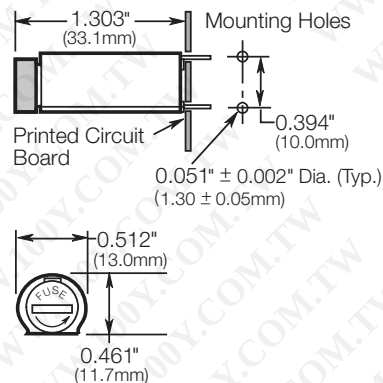
**Description:** PCB vertical mount bayonet cap and fuse holder.

**Dimensions:** See Dimensions illustration.

##### Ratings:

See Specifications table.

##### Dimensions - in (mm)



RoHS  
2002/95/EC

Data Sheet 2110

### HTC-50M



#### PCB Horizontal Mount

##### Specifications

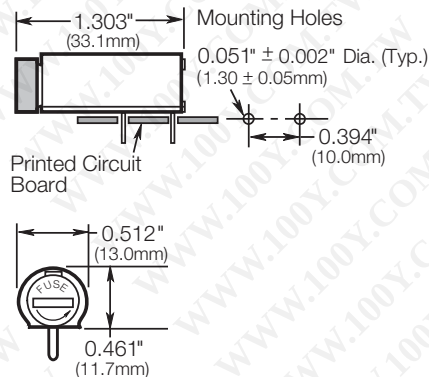
**Description:** PCB horizontal mount bayonet cap and fuse holder.

**Dimensions:** See Dimensions illustration.

##### Ratings:

See Specifications table.

##### Dimensions - in (mm)



RoHS  
2002/95/EC

Data Sheet 2110

### HTC-60M, HTC-65M



#### PCB Stand-Off Mount

##### Specifications

**Description:** Four-leg PCB stand-off fuse holder.

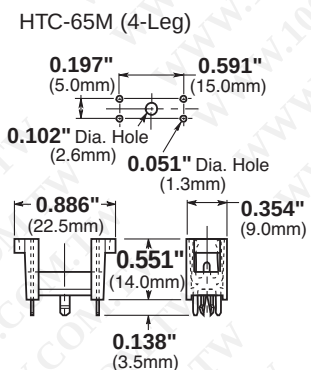
**Dimensions:** See Dimensions illustration.

##### Ratings:

Volts: — 250V

Amps: — 6.3A

##### Dimensions - in (mm)



RoHS  
2002/95/EC

Data Sheet 2110

#### Specifications

Volts: 250V

Amps: UR: 10A, VDE: 6.3A

Terminals: For HTC-45M, HTC-50M Tin-plated.

Molded Materials: High temperature thermoplastic that meets the flammability ratings of UL 94V0; Glow Wire Test: 960°C per IEC 695-2-1.

Solderability: In accordance with IEC 68-2-20.

Electrical: Contact Resistance: ≤ 10mΩ; Insulation Resistance: ≥ 10 megohm; Dielectric Strength ≥ 2000 Vac.

Shock Safety: PC2 (fuse holders).

Agency Information: CE, HTC-45M, HTC-50M UL Recognized, (Guide IZLT8, File E14853; VDE HTC-45M & HTC-50M File: 40004456; HTC-65M File: 40004455.

Packaging: Standard Qty 10 (No Prefix), Bulk Qty 100 (Prefix Catalog Number with BK/).

## PC Board Mount Fuse Holders

### HBH-I (for ¼" x 1 ¼" fuses)

### HBH-M (for 5 x 20mm fuses)

#### PCB Horizontal Mount

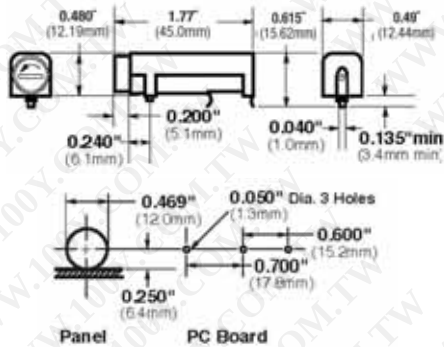
#### Specifications

**Description:** PCB horizontal mount fuse holder.

**Dimensions:** See Dimensions illustration.

**Ratings:** See Specifications table.

**Dimensions - in (mm)**



Data Sheet: 2118

### HBV-I (for ¼" x 1 ¼" fuses)

### HBV-M (for 5 x 20mm fuses)

#### PCB Vertical Mount with Stability Pins

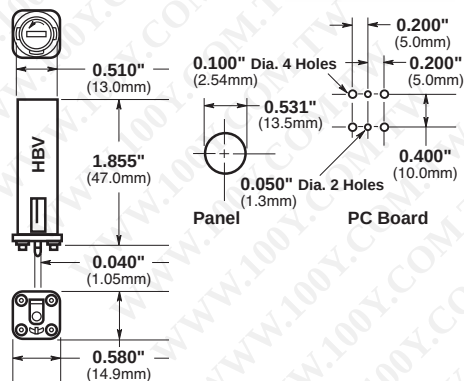
#### Specifications

**Description:** PCB vertical mount fuse holder with stability pins.

**Dimensions:** See Dimensions illustration.

**Ratings:** See Specifications table.

**Dimensions - in (mm)**



Data Sheet: 2118

### HBW-I (for ¼" x 1 ¼" fuses)

### HBW-M (for 5 x 20mm fuses)

#### PCB Vertical Mount without Stability Pins

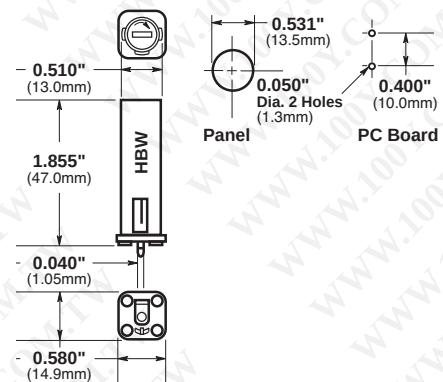
#### Specifications

**Description:** PCB vertical mount fuse holder without stability pins.

**Dimensions:** See Dimensions illustration.

**Ratings:** See Specifications table.

**Dimensions - in (mm)**



Data Sheet: 2118



FBI



FBM

#### Fuse Holder Caps (Fit all three shown above)

#### Specifications

Electrical Ratings: UL — 16A @ 250V; CSA — 12A @ 250V; VDE — 6.3A @ 250V; SEMKO — 10A @ 250V  
Insulation resistance — 10 megohm at 500Vdc. Contact resistance — less than 0.005 ohms @ 200mV. Dielectric strength — over 200V/mil.

Molded Material: High dielectric molded phenolic with a UL 94V0 flammability rating.

Fuse Carrier & Knob: Spring-loaded, bayonet-type. Tin plated brass. Screwdriver slotted.

Mounting: "Kicked" terminals (all models) and stabilizer pins on HBV & HBW models for increased stability.

Temperature Rating (RTI): Body: 150°C, Knob: 130°C

Agency Information: CE, UL Recognized — Guide IZLT2, File EI4853;  
CSA Certified — Class 6225-01, File 47235  
VDE — 4009241 (HBV, HBW)  
SEMKO — 800444



## PC Board Fuseclips for 5mm Diameter Fuses

### HTC-15M, HTC-140M

#### PCB Mounted Fuse Holder & Snap-On Cover

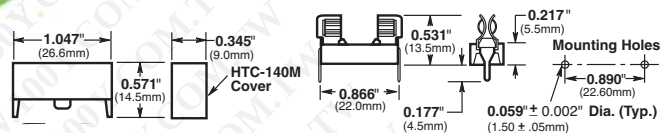
Voltage Rating: 250V, 6.3A, 1.6W

HTC-15M (fuse holder), HTC-140M (natural cover),  
HTC-150M\* (transparent cover)

\*Available in bulk only. Use this format: BK/HTC-150M

Data Sheet: 2110

RoHS  
2002/95/EC



### HTC-200M

#### PCB Mounted Fuseclip

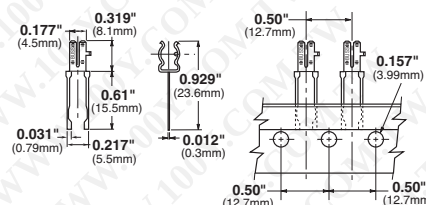
Construction: Tin-plated bronze

Tape and Fan Fold packed

Ammo Pack (AP/HTC-200M) 1000 pieces per box

Data Sheet: 2110

RoHS  
2002/95/EC

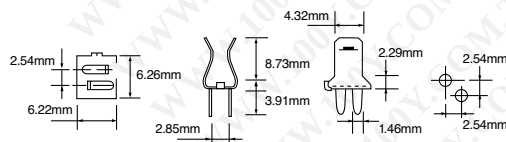


### HTC-210M

#### PCB Mounted Fuseclip with End Stops

Data Sheet: 2110

RoHS  
2002/95/EC



### 1A3399 Series

#### PCB Fuseclips with End Stops & Straight Leads

##### Catalog Numbers

##### Clip Material\*

##### Finish

1A3399-01

Beryllium copper\*

Silver

1A3399-04-R

Beryllium copper\*

Bright tin

1A3399-10-R

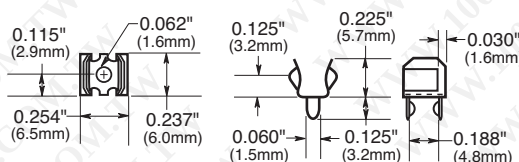
Spring bronze

Bright tin

\*Beryllium copper recommended for amps higher than 15 amps.

Data Sheet: 2131

RoHS  
2002/95/EC



### 1A5018 Series

#### PCB High Profile Fuseclips with End Stops & Straight Leads

##### Catalog Numbers

##### Clip Material\*

##### Finish

1A5018-7

Spring bronze

Silver

1A5018-10-R

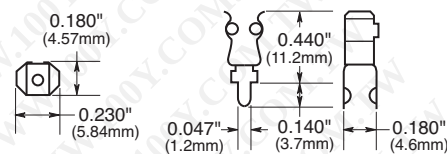
Spring bronze

Bright tin

\*Beryllium copper recommended for amps higher than 15 amps.

Data Sheet: 2131

RoHS  
2002/95/EC



### 1A5601 Series

#### PCB Fuseclips (0-7A)

##### Catalog Number

##### Clip Material

##### Finish

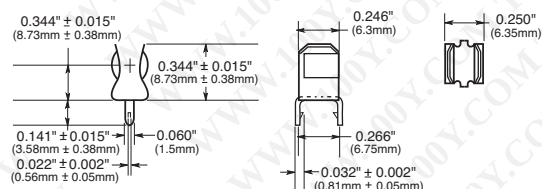
1A5601

Cartridge brass

Bright tin

Data Sheet: 2131

RoHS  
2002/95/EC



### 1A5602 Series

#### PCB Fuseclips (0-7A)

##### Catalog Number

##### Clip Material

##### Finish

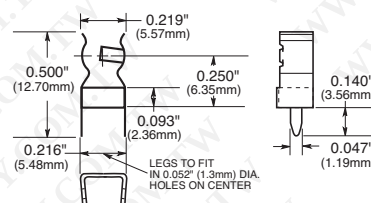
1A5602

Cartridge brass

Bright tin

Data Sheet: 2131

RoHS  
2002/95/EC



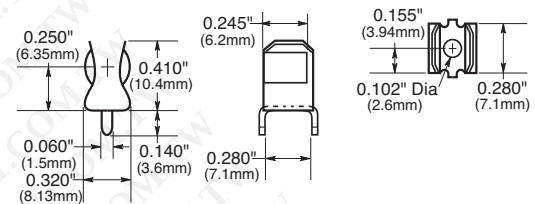
## PC Board Fuseclips for ¼" Diameter Fuses

### 1A3398 Series

#### PCB Fuseclips without End Stops with Straight Leads

| Catalog Numbers | Clip Material   | Finish     |
|-----------------|-----------------|------------|
| 1A3398-07-R     | Cartridge brass | Bright tin |

Data Sheet: 2131



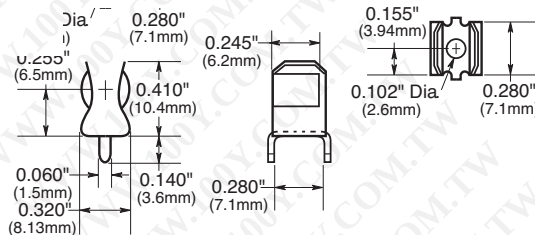
### 1A1907 Series

#### PCB Fuseclips with End Stops & Straight Leads

| Catalog Numbers | Clip Material*    | Finish             |
|-----------------|-------------------|--------------------|
| 1A1907-02       | Cartridge brass   | None/bright dipped |
| 1A1907-03-R     | Beryllium copper* | Bright tin         |
| 1A1907-05       | Beryllium copper* | Silver             |
| 1A1907-06-R     | Cartridge brass   | Bright tin         |

\*Beryllium copper recommended for amps higher than 15A.

Data Sheet: 2131



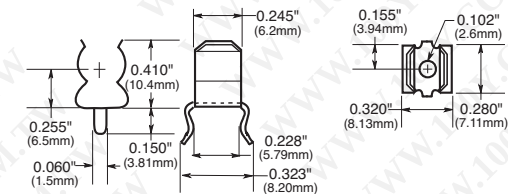
### 1A4533 Series

#### PCB Fuseclips without End Stops or Angled Out Leads

| Catalog Numbers | Clip Material*    | Finish     |
|-----------------|-------------------|------------|
| 1A4533-01-R     | Beryllium copper* | Bright tin |
| 1A4533-06-R     | Cartridge brass   | Bright tin |

\*Beryllium copper recommended for amps higher than 15A.

Data Sheet: 2131



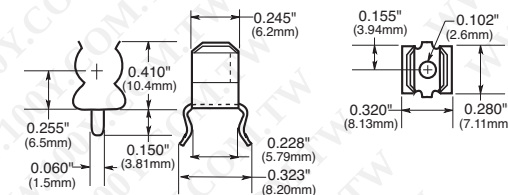
### 1A4534 Series

#### PCB Fuseclips with End Stops & Angled Out Leads

| Catalog Numbers | Clip Material*    | Finish     |
|-----------------|-------------------|------------|
| 1A4534-01-R     | Beryllium copper* | Bright tin |
| 1A4534-06-R     | Cartridge brass   | Bright tin |

\*Beryllium copper recommended for amps higher than 15A.

Data Sheet: 2131



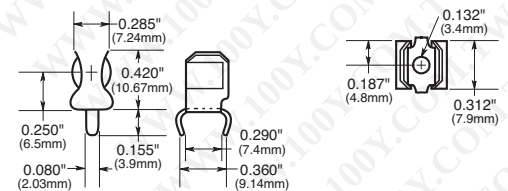
### 1A1119 Series

#### Fuseclips with End Stops & Angled In Leads

| Catalog Numbers | Clip Material*    | Finish     |
|-----------------|-------------------|------------|
| 1A1119-04-R     | Beryllium copper* | Bright tin |
| 1A1119-05       | Beryllium copper* | Silver     |
| 1A1119-10-R     | Cartridge brass   | Bright tin |

\*Beryllium copper recommended for amps higher than 15A.

Data Sheet: 2131



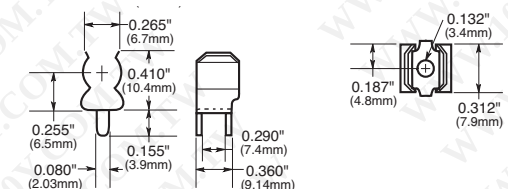
### 1A1120 Series

#### PCB Fuseclips without End Stops or Angled In Leads

| Catalog Numbers | Clip Material*    | Finish             |
|-----------------|-------------------|--------------------|
| 1A1120-02       | Cartridge brass   | None/bright dipped |
| 1A1120-05       | Beryllium copper* | Silver             |
| 1A1120-06-R     | Beryllium copper* | Bright tin         |
| 1A1120-09-R     | Cartridge brass   | Bright tin         |

\*Beryllium copper recommended for amps higher than 15A.

Data Sheet: 2131

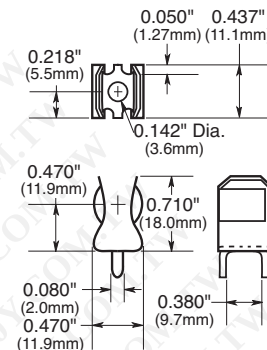


# PC Board Fuseclips for $\frac{13}{32}$ " Diameter, ATM and ATC® fuses

## 1A3400 Series

PCB Fuseclips for  $\frac{13}{32}$ " diameter fuses with End Stops & Straight Leads

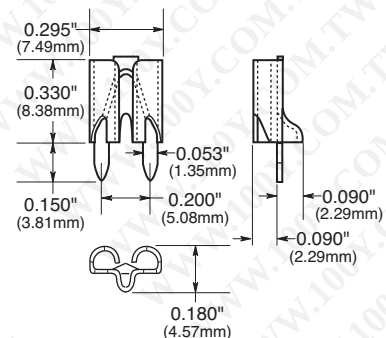
| Catalog Number  | Amp Rating | Clip Material | Finish     |
|-----------------|------------|---------------|------------|
| 1A3400-09       | 20A Max.   | Spring bronze | Bright tin |
| Data Sheet 2131 |            |               |            |



## 1A5600 Series

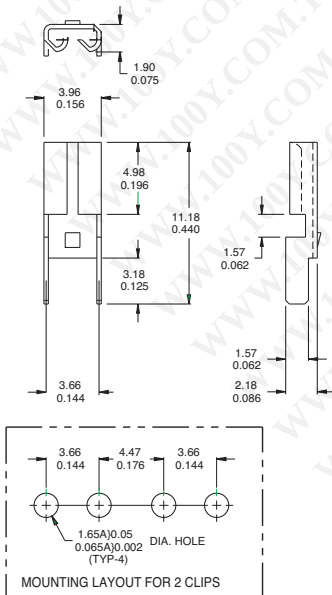
PCB Fuseclips for ATC Fuses (0-20A)

| Catalog Number  | Clip Material | Finish           |
|-----------------|---------------|------------------|
| 1A5600          | Brass         | Satin finish tin |
| Data Sheet 2131 |               |                  |



## 1A5778

PCB Fuseclips for ATM Fuses

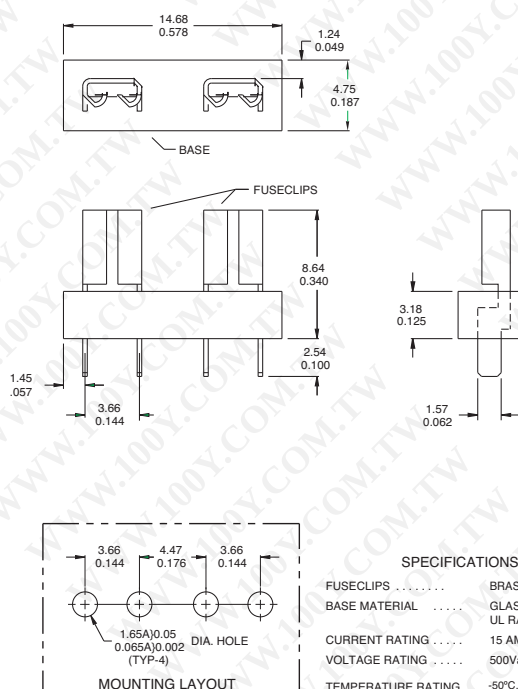


MATERIAL: BRASS, NICKEL PLATED, 0.30/0.012 THICK

Data Sheet 2131

## 1A5779 Series

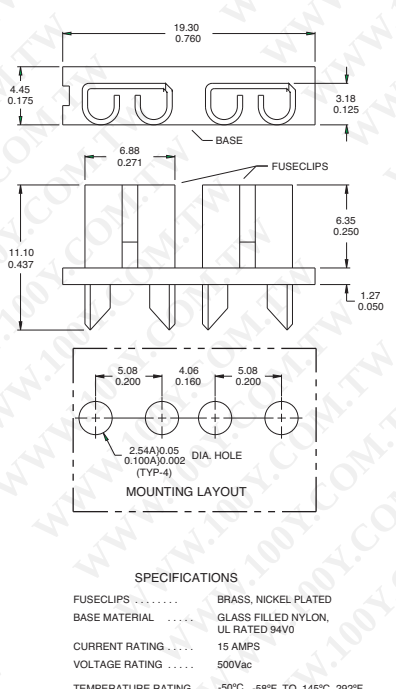
PCB Fuseclips for ATM Fuses



Data Sheet 2131

## 1A5780 Series

PCB Fuseclips for ATC Fuses



Data Sheet 2131



## PC Board Fuseclips for $\frac{1}{4}$ ", $\frac{9}{32}$ ", $\frac{13}{32}$ " and $\frac{5}{16}$ " Diameter Fuses

### 5681 & 5682 Series

PCB Fuseclips with Mounting Holes For  $\frac{1}{4}$ " Diameter Fuses

| Catalog Number | End Stop | Clip Mat.** | Finish     | Dimensions (Inches) |             |            |           |           | Ref.   |
|----------------|----------|-------------|------------|---------------------|-------------|------------|-----------|-----------|--------|
|                |          |             |            | B (To End Stop)     | C (Contact) | D (Height) | E (Width) | Hole Dia. |        |
| 5681-01        | No       | BeCu        | Silver     | †                   | 0.265       | 0.41       | 0.32      | 0.132     | Fig. 2 |
| 5681-08        |          | Spg. Br.    | Nickel     |                     |             |            |           |           |        |
| 5681-15-R      |          | Spg. Br.    | Bright Tin |                     |             |            |           |           |        |
| 5682-01        | Yes      | BeCu        | Silver     | 0.108               | 0.262       | 0.41       | 0.32      | 0.132     | Fig. 1 |
| 5682-02        |          | BeCu        | Silver     |                     |             |            |           |           |        |
| 5682-11-R      |          | BeCu        | Bright Tin | 0.131               |             |            |           |           |        |
| 5682-41-R      |          | Spg. Br.    | Bright Tin | 0.106               |             |            |           |           |        |
| 5682-44-R      |          | Spg. Br.    | Bright Tin | 0.132               |             |            |           |           |        |

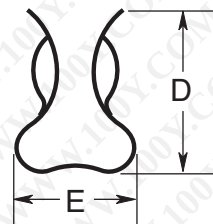
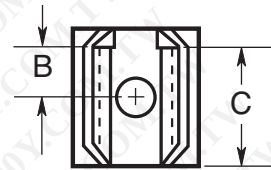


Figure 1

### 5672 & 5674 Series

PCB Fuseclips with Mounting Holes For  $\frac{9}{32}$ " Diameter Fuses

| Catalog Number | End Stop | Clip Mat.** | Finish     | Dimensions (Inches) |             |            |           |           | Ref.   |
|----------------|----------|-------------|------------|---------------------|-------------|------------|-----------|-----------|--------|
|                |          |             |            | B (To End Stop)     | C (Contact) | D (Height) | E (Width) | Hole Dia. |        |
| 5672-11        | No       | Spg. Br.    | Bright Tin | †                   | 0.362       | 0.52       | 0.38      | 0.172     | Fig. 2 |
| 5674-01        | Yes      | BeCu        | Silver     | 0.168               | 0.356       | 0.52       | 0.38      | 0.172     | Fig. 1 |
| 5674-10        |          | BeCu        | Bright Tin |                     |             |            |           |           |        |
| 5674-41        |          | Spg. Br.    | Bright Tin |                     |             |            |           |           |        |



### 5956 & 5960 Series

PCB Fuseclips with Mounting Holes For  $\frac{13}{32}$ " Diameter Fuses

| Catalog Number | End Stop | Clip Mat.** | Finish      | Dimensions (Inches) |             |            |           |           | Ref.   |
|----------------|----------|-------------|-------------|---------------------|-------------|------------|-----------|-----------|--------|
|                |          |             |             | B (To End Stop)     | C (Contact) | D (Height) | E (Width) | Hole Dia. |        |
| 5956-16        | No       | Spg. Br.    | Bright Tin  | †                   | 0.312       | 0.71       | 0.47      | 0.172     | Fig. 2 |
| 5960-07        | Yes      | BeCu        | Silver      | 0.168               | 0.387       | 0.71       | 0.47      | 0.196     | Fig. 1 |
| 5960-09        |          | BeCu        | Silver      | 0.20                |             |            |           | 0.172     |        |
| 5960-44        |          | Spg. Br.    | Nickel      | 0.20                |             |            |           | 0.197     |        |
| 5960-51        |          | Spg. Br.    | Bright Dip* | 0.168               |             |            |           | 0.196     |        |
| 5960-53        |          | Spg. Br.    | Bright Dip* | 0.20                |             |            |           | 0.172     |        |
| 5960-61-R      |          | Spg. Br.    | Bright Tin  | 0.168               |             |            |           | 0.196     |        |
| 5960-62-R      |          | Spg. Br.    | Bright Tin  | 0.168               |             |            |           | 0.132     |        |
| 5960-63-R      |          | Spg. Br.    | Bright Tin  | 0.20                |             |            |           | 0.172     |        |
| 5960-64-R      |          | Spr. Br.    | Bright Tin  | 0.20                |             |            |           | 0.128     |        |

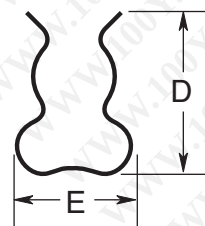
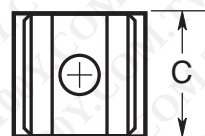


Figure 2

### 5591 & 5592 Series

PCB Fuseclips with Mounting Holes For  $\frac{5}{16}$ " Diameter Fuses

| Catalog Number | End Stop | Clip Mat.** | Finish      | Dimensions (Inches) |             |            |           |           | Ref.   |
|----------------|----------|-------------|-------------|---------------------|-------------|------------|-----------|-----------|--------|
|                |          |             |             | B (To End Stop)     | C (Contact) | D (Height) | E (Width) | Hole Dia. |        |
| 5591-42        | Yes      | Spg. Br.    | Bright Dip* | 0.26                | 0.51        | 0.89       | 0.60      | 0.172     | Fig. 1 |
| 5591-52-R      |          | Spg. Br.    | Bright Tin  |                     |             |            |           |           |        |
| 5592-01        | No       | BeCu        | Silver      | 0.252               | 0.56        | 0.875      | 0.60      | 0.20      | Fig. 2 |
| 5592-11        |          | Spg. Br.    | Silver      |                     |             |            |           | 0.20      |        |



\* Bright Dip is actually treated bare metal with no plating.

\*\* Spg. Br. — Spring Bronze; BeCu — Beryllium Copper.

† Hole in center of both clip and contact area.