

**Cooper Bussmann**

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## MDL-1/2-R

Time Delay, 1/4 X 1-1/4 Inch, Glass Tube Fuse

| Product Information |                 |
|---------------------|-----------------|
| Product Type:       | Fuse            |
| Product Family:     | Electronic      |
| Brand:              | Cooper Bussmann |

| Recommended Products          |                               |
|-------------------------------|-------------------------------|
| Rec. Fuse Block:              | <a href="#">S-8000 Series</a> |
| Rec. Inline Fuse Holder:      | <a href="#">HHB</a>           |
| Rec. Panel-mount Fuse Holder: | <a href="#">HTB Series</a>    |
| Rec. Fuse Clips:              | <a href="#">1A1907 Series</a> |

| Physical Properties |                                   |
|---------------------|-----------------------------------|
| Dimensions:         | 1.25in.(L) × 0.25in.(W) × 0in.(H) |

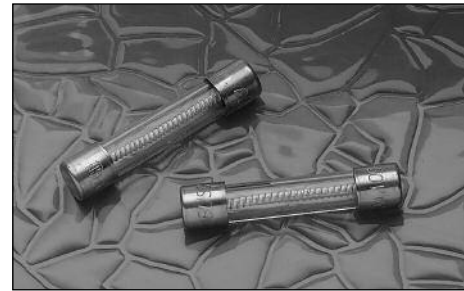
| Certifications                |
|-------------------------------|
| <a href="#">UL Listed</a>     |
| <a href="#">CSA Certified</a> |

| Electrical Properties    |   |
|--------------------------|---|
| Maximum AC Voltage:      | 250   |
| Amperage Rating:         | 0.5   |
| AC Interrupting Ratings: | <ul style="list-style-type: none"> <li>• 35 at 250V</li> <li>• 10000 at 125V</li> </ul> |

**1/4" x 1-1/4" Fuses**  
**MDL Series, Time Delay, Glass Tube**

**Description**

- Time delay, glass tube
- Optional axial leads available
- 1/4 x 1-1/4 (6.3mm x 32mm) physical size
- Glass tube, nickel-plated brass endcap construction
- UL Listed product meets standard 248-14



| ELECTRICAL CHARACTERISTICS |            |                  |
|----------------------------|------------|------------------|
| Rated Current              | Amp Rating | Opening Time     |
| 1/16 - 30A                 | 100%       | None             |
|                            | 135%       | 60 minutes max.  |
|                            | 200%       | 120 seconds max. |
| 1/16 - 3A                  | 200%       | 5 seconds min.   |
| 3-2/10 - 8A                | 200%       | 12 seconds min.  |

**Agency Information**

- UL Listed Card: MDL 1/16 - 8A (Guide JDYX, File E19180)
- UL Recognized Card: MDL 9 - 30A (Guide JDYX2, File E19180)
- CSA Certification Card: MDL 1/16 - 8A (Class No. 1422-01)
- CSA Component Acceptance: MDL 9-30A (Class No. 1422-30)

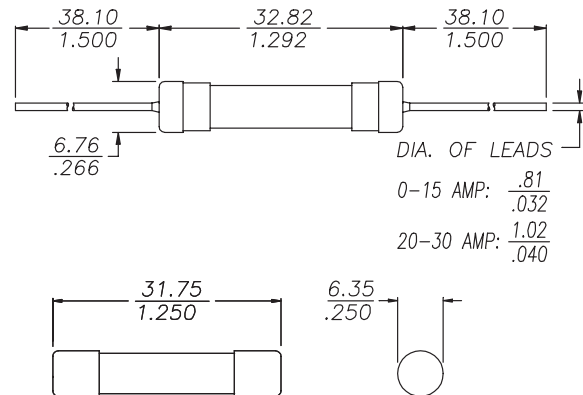
**Environmental Data**

- Shock: 1/100A and 8/10A – MIL-STD-202, Method 213, Test Condition I; 1A thru 30A – MIL-STD-202, Method 207, (HI Shock)
- Vibration: 1/100A and 8/10A – MIL-STD-202, Method 201; 1/4A thru 30A – MIL-STD-202, Method 204, Test Condition C (Except 5g, 500HZ)

**Ordering**

- Specify packaging, product, and option code

**Dimensions (mm/in)**  
Drawing Not to Scale



**SPECIFICATIONS**

| Product Code | Voltage Rating AC | AC Interrupting Rating* |        |       | Typical DC Cold Resistance** (ohms) | Typical Melting I <sup>2</sup> t†† AC | Typical Voltage Drop‡ |
|--------------|-------------------|-------------------------|--------|-------|-------------------------------------|---------------------------------------|-----------------------|
|              |                   | 250V                    | 125V   | 32V   |                                     |                                       |                       |
| MDL-1/16     | 250V              | 35A                     | 10000A | -     | 38.000                              | 0.0046                                | 2.79                  |
| MDL-1/10     | 250V              | 35A                     | 10000A | -     | 15.900                              | 0.0420                                | 1.95                  |
| MDL-1/8      | 250V              | 35A                     | 10000A | -     | 9.850                               | 0.0422                                | 1.52                  |
| MDL-3/16     | 250V              | 35A                     | 10000A | -     | 4.680                               | 0.116                                 | 1.05                  |
| MDL-2/10     | 250V              | 35A                     | 10000A | -     | 4.115                               | 0.314                                 | 0.972                 |
| MDL-1/4      | 250V              | 35A                     | 10000A | -     | 3.200                               | 0.447                                 | 0.965                 |
| MDL-3/10     | 250V              | 35A                     | 10000A | -     | 2.300                               | 0.412                                 | 0.808                 |
| MDL-3/8      | 250V              | 35A                     | 10000A | -     | 2.800                               | 0.982                                 | 1.46                  |
| MDL-1/2      | 250V              | 35A                     | 10000A | -     | 1.725                               | 1.656                                 | 1.27                  |
| MDL-3/4      | 250V              | 35A                     | 10000A | -     | 0.822                               | 4.343                                 | 1.01                  |
| MDL-1        | 250V              | 35A                     | 10000A | -     | 0.525                               | 11.498                                | 0.995                 |
| MDL-1-1/4    | 250V              | 100A                    | 10000A | -     | 0.320                               | 86.2                                  | 0.722                 |
| MDL-1-1/2    | 250V              | 100A                    | 10000A | -     | 0.250                               | 22.7                                  | 0.721                 |
| MDL-2        | 250V              | 100A                    | 10000A | -     | 0.173                               | 62.3                                  | 0.644                 |
| MDL-2-1/4    | 250V              | 100A                    | 10000A | -     | 0.068                               | 49.6                                  | 0.535                 |
| MDL-2-1/2    | 250V              | 100A                    | 10000A | -     | 0.096                               | 63.1                                  | 0.410                 |
| MDL-3        | 250V              | 100A                    | 10000A | -     | 0.067                               | 67.5                                  | 0.345                 |
| MDL-4        | 250V              | 200A                    | 10000A | -     | 0.035                               | 19.3                                  | 0.187                 |
| MDL-5        | 250V              | 200A                    | 10000A | -     | 0.023                               | 32.0                                  | 0.160                 |
| MDL-6        | 250V              | 200A                    | 10000A | -     | 0.018                               | 37.4                                  | 0.155                 |
| MDL-6-1/4    | 250V              | 200A                    | 10000A | -     | 0.018                               | 38.7                                  | 0.152                 |
| MDL-7        | 250V              | 200A                    | 10000A | -     | 0.018                               | 42.7                                  | 0.140                 |
| MDL-8        | 250V              | 200A                    | 10000A | -     | 0.011                               | 47.8                                  | 0.119                 |
| MDL-9        | 32V               | -                       | -      | 1000A | 0.009                               | 51.5                                  | 0.124                 |
| MDL-10       | 32V               | -                       | -      | 1000A | 0.008                               | 64.4                                  | 0.114                 |
| MDL-15       | 32V               | -                       | -      | 1000A | 0.006                               | 354.0                                 | 0.130                 |
| MDL-20       | 32V               | -                       | -      | 1000A | 0.002                               | 2914.0                                | 0.530                 |
| MDL-25       | 32V               | -                       | -      | 1000A | 0.001                               | 15221.0                               | 0.30                  |
| MDL-30       | 32V               | -                       | -      | 1000A | 0.001                               | 15581.0                               | 0.40                  |

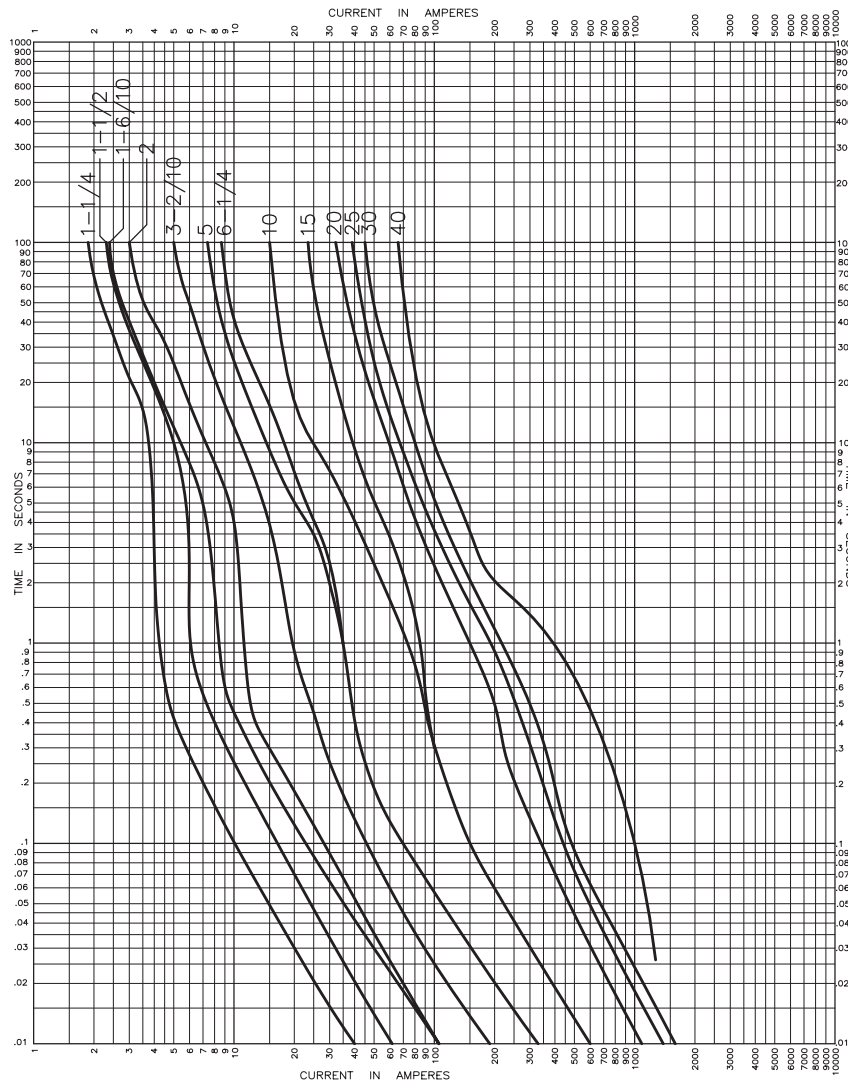
\* Interrupting Ratings (Interrupting ratings were measured at 70% - 80% power factor on AC)

\*\* DC Cold Resistance (Measured at ≤10% of rated current)

† Typical Melting I<sup>2</sup>t (A<sup>2</sup>Sec) (I<sup>2</sup>t was measured at listed interrupting rating and rated voltage.)

‡ Typical Voltage Drop (Voltage drop was measured at 25°C±3°C ambient temperature at rated current)

**TIME CURRENT CURVE**



**PACKAGING CODE**

| Packaging Code | Description  |
|----------------|--|
| BK             | 100 pieces of fuses packed into a cardboard carton   |
| BK1            | 1,000 pieces of fuses packed into a cardboard carton |
| BK8            | 8,000 pieces of fuses packed into a cardboard carton |

**OPTION CODE**

| Option Code | Description  |
|-------------|--|
| B           | Board Washable - Hermetically sealed to withstand aqueous cleaning |
| V           | Axial leads - copper tinned wire with nickel plated brass overcaps |
| -R          | RoHS compliant version   |