## BUSSMANN SERIES

# **MDL**

# 1/4" x 1 1/4" Time-delay glass tube fuses





#### **Product features**

- Time-delay
- Optional axial leads available
- 1/4 x 1 1/4 (6.4 x 31.7mm) physical size
- Glass tube, nickel-plated brass endcap construction
- UL Listed product meets standard 248-14

#### **Environmental data**

- Shock: 1A thru 30A MIL-STD-202, Method 207, (HI Shock)
- Vibration: 1/4A thru 30A MIL-STD-202, Method 204, Test Condition C (Except 5g, 500HZ)

### **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)
- CE

#### **Ordering**

- Specify packaging code
- Insert packaging code prefix before part number. E.g., BK (or BK1)-MDL-5-R
- · Specify option codes if desired
- For axial leads, insert "V" between catalog series and amprating. E.g., BK-MDL-V-5-R
- For board washable, insert "B" between catalog series and amp rating. E.g., BK-MDL-B-5-R
- For axial leads and board washable, insert "B" then "V" between catalog series and amp rating. E.g., BK-MDL-BV-5-R

| Specifications |                |        |                                 |       |                              |                         |                    |  |
|----------------|----------------|--------|---------------------------------|-------|------------------------------|-------------------------|--------------------|--|
| Part           | Voltage Rating |        | AC Interrupting Rating* (amps)@ |       |                              | Typical   Melting I 2t† | Typical<br>Voltage |  |
| Number         | Vac            | 250Vac | 125Vac                          | 32Vac | Resistance**<br>( <b>Ω</b> ) | AC                      | Drop‡              |  |
| MDL-1/16-R     | 250            | 35     | 10000                           | -     | 45.6                         | 0.0046                  | 2.79               |  |
| MDL-1/10-R     | 250            | 35     | 10000                           | -     | 15.68                        | 0.0420                  | 1.95               |  |
| MDL-1/8-R      | 250            | 35     | 10000                           | -     | 12.238                       | 0.0422                  | 1.52               |  |
| MDL-3/16-R     | 250            | 35     | 10000                           | -     | 4.81                         | 0.116                   | 1.05               |  |
| MDL-2/10-R     | 250            | 35     | 10000                           | -     | 5.234                        | 0.314                   | 0.972              |  |
| MDL-1/4-R      | 250            | 35     | 10000                           | -     | 3.208                        | 0.447                   | 0.965              |  |
| MDL-3/10-R     | 250            | 35     | 10000                           | -     | 2.046                        | 0.412                   | 0.808              |  |
| MDL-3/8-R      | 250            | 35     | 10000                           | -     | 1.567                        | 0.982                   | 1.46               |  |
| MDL-1/2-R      | 250            | 35     | 10000                           | -     | 0.943                        | 1.656                   | 1.27               |  |
| MDL-3/4-R      | 250            | 35     | 10000                           | -     | 0.397                        | 4.343                   | 1.01               |  |
| MDL-1-R        | 250            | 35     | 10000                           | -     | 0.273                        | 11.498                  | 0.995              |  |
| MDL-1-1/4-R    | 250            | 100    | 10000                           | -     | 0.205                        | 86.2                    | 0.722              |  |
| MDL-1-1/2-R    | 250            | 100    | 10000                           | -     | 0.156                        | 22.7                    | 0.721              |  |
| MDL-2-R        | 250            | 100    | 10000                           | -     | 0.116                        | 62.3                    | 0.644              |  |
| MDL-2-1/4-R    | 250            | 100    | 10000                           | -     | 0.096                        | 49.6                    | 0.535              |  |
| MDL-2-1/2-R    | 250            | 100    | 10000                           | -     | 0.081                        | 63.1                    | 0.410              |  |
| MDL-3-R        | 250            | 100    | 10000                           | -     | 0.057                        | 67.5                    | 0.345              |  |
| MDL-4-R        | 250            | 200    | 10000                           | -     | 0.038                        | 19.3                    | 0.187              |  |
| MDL-5-R        | 250            | 200    | 10000                           | -     | 0.025                        | 32.0                    | 0.160              |  |
| MDL-6-R        | 250            | 200    | 10000                           | -     | 0.022                        | 37.4                    | 0.155              |  |
| MDL-6-1/4-R    | 250            | 200    | 10000                           | -     | 0.02                         | 38.7                    | 0.152              |  |
| MDL-7-R        | 250            | 200    | 10000                           | -     | 0.018                        | 42.7                    | 0.140              |  |
| MDL-8-R        | 250            | 200    | 10000                           | -     | 0.015                        | 47.8                    | 0.119              |  |
| MDL-9-R        | 32             | -      | -                               | 1000  | 0.012                        | 51.5                    | 0.124              |  |
| MDL-10-R       | 32             | -      | -                               | 1000  | 0.01                         | 64.4                    | 0.114              |  |
| MDL-15-R       | 32             | -      | -                               | 1000  | 0.005                        | 354.0                   | 0.130              |  |
| MDL-20-R       | 32             | -      | -                               | 1000  | 0.004                        | 2914.0                  | 0.530              |  |
| MDL-25††       | 32             | -      | -                               | 1000  | 0.01225                      | 15221.0                 | 0.30               |  |
| MDL-30††       | 32             | -      | -                               | 1000  | 0.0011                       | 15581.0                 | 0.40               |  |

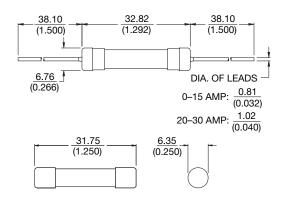
- \* Interrupting Ratings (Interrupting ratings were measured at 70% 80% power factor on AC)
- \*\* DC Cold Resistance (Measured at ≤10% of rated current)
- $\dagger$  Typical Melting I  $\,^2\text{t}$  (A  $^2\text{Sec})$  (I  $\,^2\text{t}$  was measured at listed interrupting rating and rated voltage.)
- ‡ Typical Voltage Drop (Voltage drop was measured at 25°C±3°C ambient temperature at rated current)
- †† MDL-25 & MDL-30 not available in RoHS compliant construction.

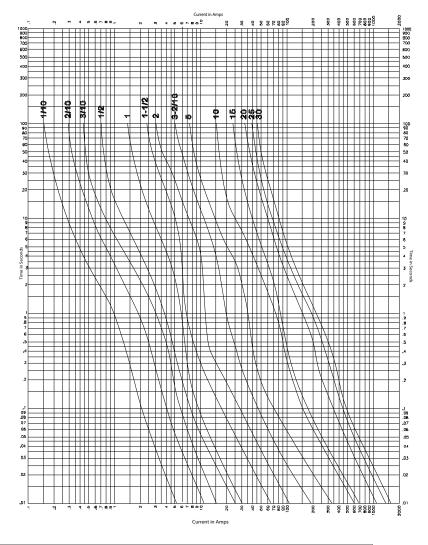


#### Time-Current Curve

### Dimensions - mm (in)

Drawing Not to Scale





| Packaging Code |  |  |  |  |
|----------------|--|--|--|--|
| Packaging Code | Description                              |  |  |  |
| BK             | 100 fuses packed into a cardboard carton |  |  |  |

|             | Option Code  |  |  |  |  |
|-------------|--|--|--|--|--|
| Option Code | Description  |  |  |  |  |
| В           | Sealed to withstand aqueous cleaning (Board Washable)              |  |  |  |  |
| V           | Axial leads - copper tinned wire with nickel plated brass overcaps |  |  |  |  |

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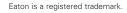
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