

# MEGA® High Performance Fuses

Rated 70 V-SF51



## Description

MEGA® 70V High Performance SF51 automotive fuses employ diffusion pill technology to provide predictable time-delayed circuit protection. These MEGA fuses are ideal for protecting batteries, alternators, and heavy gauge wire harnesses that experience large inrushes of current. Use fuses with ampere ratings between 350 A and 500 A only for short circuit protection.

## Features & Benefits

- 1 Mohm open state resistance at 100 V
- High-contrast color coding on housing aids identification
- High tightening torque resistance
- Available with two, one, or no mounting holes
- Comply with ISO 20934 – Type SF51

## Additional Information



Resources

## Applications

- Cars / SUVs
- Trucks
- Power Tools
- 2/3 wheelers
- Offroad vehicles
- Buses
- Watercraft as approved by Littelfuse®

[See Disclaimer Notice](#)

## Specifications

|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| <b>Voltage Rating:</b>                        | 70 V DC                                       |
| <b>Interrupting Rating:</b>                   | 2500 A @ 70 V DC                              |
| <b>Recommended Environmental Temperature:</b> | –40 °C to +125 °C                             |
| <b>Terminals Material:</b>                    | Tin-plated copper alloy                       |
| <b>Housing Material:</b>                      | PPA-GF33<br>(UL 94 Flammability rating of HB) |
| <b>Open State Resistance (OSR):</b>           | > 1 Mohm (after fuse opening) at 100 V        |
| <b>Typical Weight per Fuse:</b>               | 12.0 g                                        |
| <b>Mounting Torque M6:</b>                    | 9 Nm ± 1 Nm                                   |
| <b>Mounting Torque M8:</b>                    | 20 Nm ± 1 Nm                                  |
| <b>Comply With:</b>                           | ISO 20934 - Type SF51                         |

# MEGA<sup>®</sup> High Performance Fuses

## Rated 70 V-SF51

### Ordering Information

| Part Number    | Current Rating (A) | Package Size | Bolt Size | Bolt Hole Qty |
|----------------|--------------------|--------------|-----------|---------------|
| 0998xxx.UX-2M8 | 60 – 500           | 500          | M8        | 2             |
| 0998xxx.UX-1M8 | 60 – 500           | 500          | M8        | 1             |
| 0998xxx.UX-2M6 | 60 – 500           | 500          | M6        | 2             |
| 0998xxx.UX-1M6 | 60 – 500           | 500          | M6        | 1             |
| 0998xxx.UX-NH  | 60 – 500           | 500          | -         | 0             |

### Ratings

| Part Number | Current Rating (A) | Font Color | Test Cable Size (mm <sup>2</sup> ) | Typ. Voltage Drop (mV) | Typ. Cold Resistance (mΩ) | Typ. I <sup>2</sup> t (A <sup>2</sup> s) |
|-------------|--------------------|------------|------------------------------------|------------------------|---------------------------|------------------------------------------|
| 0998060._   | 60                 | ■ ■        | 6                                  | 75.5                   | 0.90                      | 22 800                                   |
| 0998080._   | 80                 | ■          | 10                                 | 88.0                   | 0.75                      | 34 900                                   |
| 0998100._   | 100                | ■          | 10                                 | 66.7                   | 0.46                      | 24 000                                   |
| 0998125._   | 125                | ■          | 16                                 | 70.4                   | 0.37                      | 38 000                                   |
| 0998150._   | 150                | ■          | 25                                 | 70.6                   | 0.32                      | 58 100                                   |
| 0998175._   | 175                | ■          | 25                                 | 79.2                   | 0.28                      | 79 300                                   |
| 0998200._   | 200                | ■          | 35                                 | 76.9                   | 0.24                      | 123 600                                  |
| 0998225._   | 225                | ■ ■        | 35                                 | 76.6                   | 0.21                      | 142 500                                  |
| 0998250._   | 250                | ■          | 50                                 | 66.0                   | 0.17                      | 220 000                                  |
| 0998300._   | 300                | ■          | 50                                 | 46.9 <sup>2</sup>      | 0.15                      | 340 000                                  |
| 0998350._   | 350 <sup>1</sup>   | ■ ■        | 50                                 | 50.7 <sup>2</sup>      | 0.14                      | 495 000                                  |
| 0998400._   | 400 <sup>1</sup>   | ■          | 70                                 | 50.1 <sup>2</sup>      | 0.12                      | 872 000                                  |
| 0998450._   | 450 <sup>1</sup>   | ■          | 70                                 | 52.9 <sup>2</sup>      | 0.10                      | 1 224 000                                |
| 0998500._   | 500 <sup>1</sup>   | ■          | 70                                 | 56.3 <sup>2</sup>      | 0.09                      | 1 800 000                                |

**Note:** The typical I<sup>2</sup>t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

**1:** Short Circuit protectors

**2:** Voltage drop measurement taken at 75% of rated current

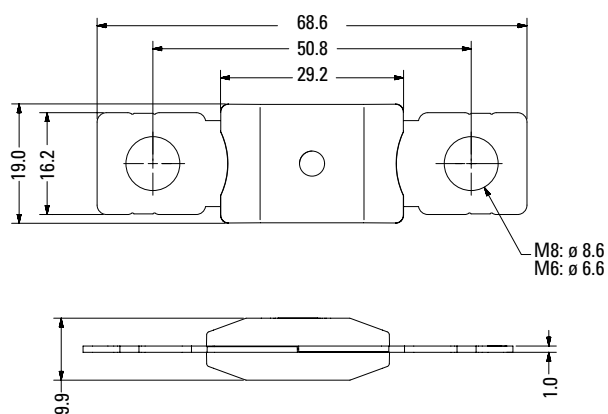
# MEGA<sup>®</sup> High Performance Fuses

Rated 70 V-SF51

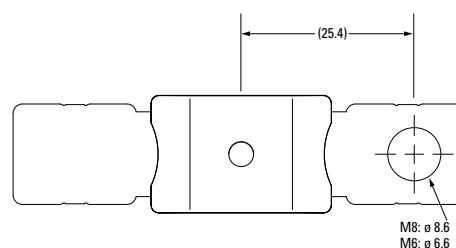
## Dimensions

Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.

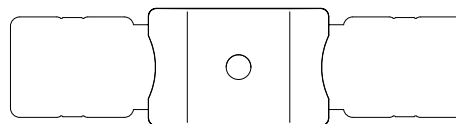
**2-Holes version (M8/ M6)**



**1-Hole version (M8/M6)**



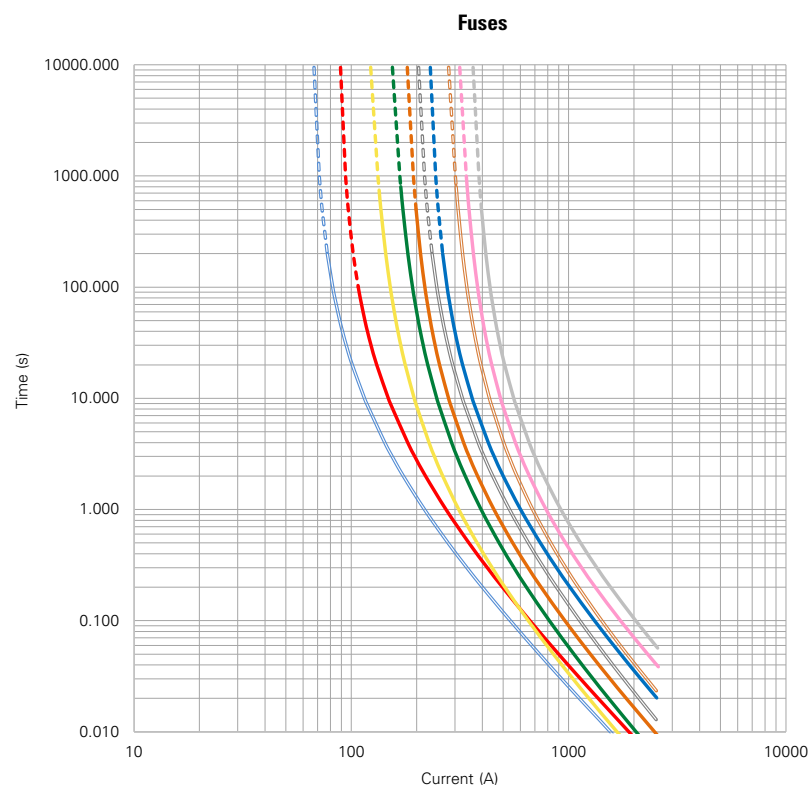
**No-Holes version**



# MEGA® High Performance Fuses

## Rated 70 V-SF51

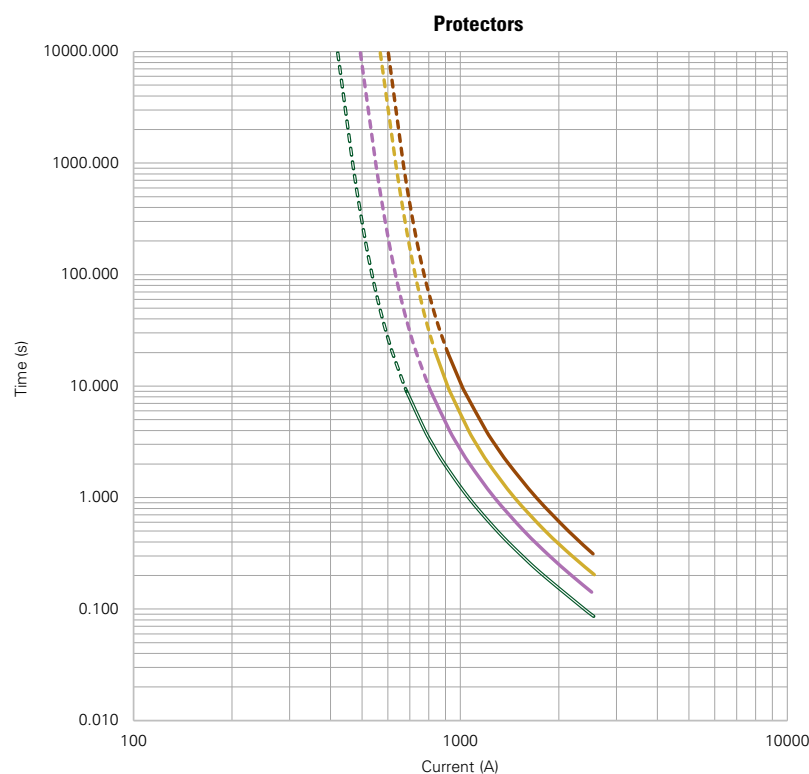
### Time-Current Characteristic



| % of Rating | Opening Time Min / Max (s) |            |
|-------------|----------------------------|------------|
|             | 60-250                     | 300        |
| 75          | - / -                      | 14 400 / ∞ |
| 100         | 14 400 / ∞                 | - / -      |
| 135         | 120 / 1800                 | 120 / 1800 |
| 150         | 20 / 450                   | 20 / 450   |
| 200         | 1 / 15                     | 1 / 15     |
| 350         | 0.3 / 5                    | 0.3 / 5    |
| 600         | 0.1 / 1                    | 0.1 / 1    |

|       |       |
|-------|-------|
| 60 A  | 175 A |
| 80 A  | 200 A |
| 100 A | 225 A |
| 125 A | 250 A |
| 150 A | 300 A |

**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.



| % of Rating | Opening Time Min / Max (s) |  |
|-------------|----------------------------|--|
|             | 350-500                    |  |
| 75          | 14 400 / ∞                 |  |
| 100         | - / -                      |  |
| 135         | - / -                      |  |
| 150         | - / -                      |  |
| 200         | 1 / 15                     |  |
| 350         | 0.5 / 5                    |  |
| 600         | 0.1 / 1                    |  |

|       |
|-------|
| 350 A |
| 400 A |
| 450 A |
| 500 A |

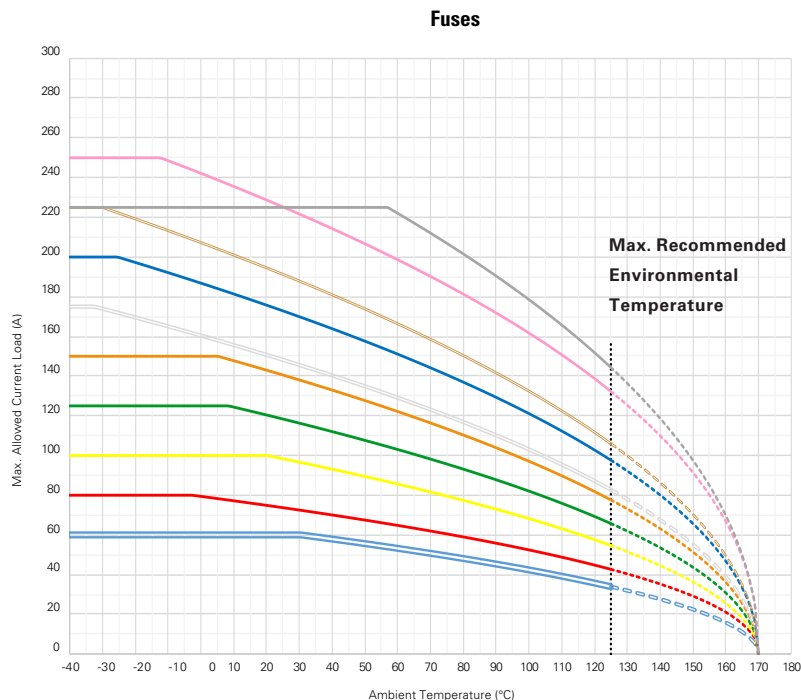
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## Rated 70 V-SF51

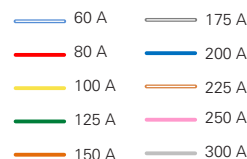
### Typical Derating Curves

Please contact Littelfuse® for Details Regarding Derating Test Set Up

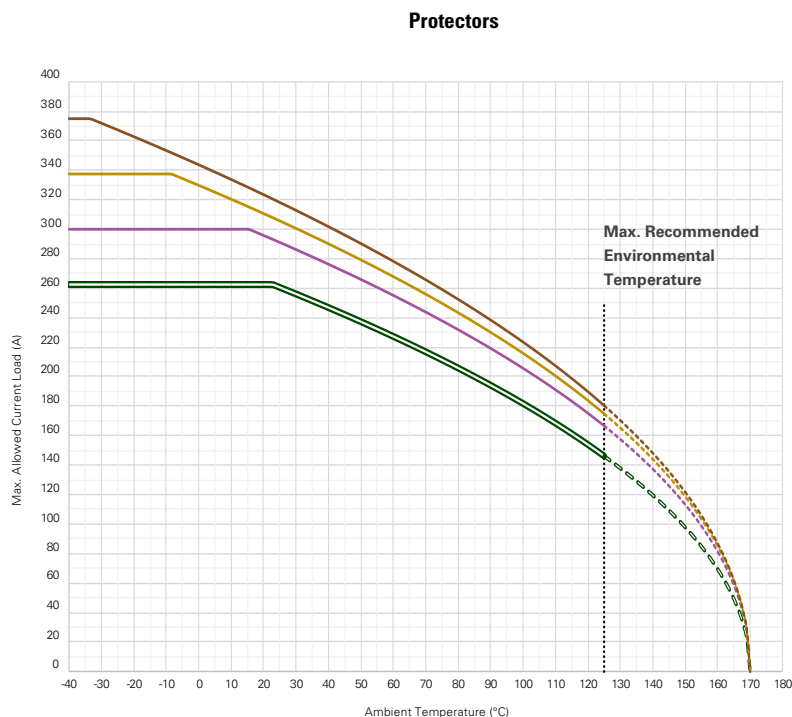


**Max. allowed current load (A)  
at ambient temperature based on typical derating**

|             | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
|-------------|--------|------|-------|-------|-------|--------|--------|
| <b>60A</b>  | 60     | 60   | 60    | 52    | 47    | 39     | 34     |
| <b>80A</b>  | 80     | 79   | 75    | 63    | 57    | 49     | 43     |
| <b>100A</b> | 100    | 100  | 100   | 84    | 75    | 63     | 55     |
| <b>125A</b> | 125    | 125  | 120   | 101   | 90    | 76     | 66     |
| <b>150A</b> | 150    | 150  | 143   | 119   | 107   | 90     | 78     |
| <b>175A</b> | 175    | 160  | 151   | 126   | 114   | 95     | 83     |
| <b>200A</b> | 200    | 187  | 176   | 148   | 133   | 112    | 98     |
| <b>225A</b> | 225    | 207  | 195   | 163   | 146   | 123    | 106    |
| <b>250A</b> | 250    | 242  | 229   | 194   | 177   | 151    | 132    |
| <b>300A</b> | 225    | 225  | 225   | 217   | 196   | 166    | 144    |



**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.



**Max. allowed current load (A)  
at ambient temperature based on typical derating**

|             | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
|-------------|--------|------|-------|-------|-------|--------|--------|
| <b>350A</b> | 263    | 263  | 263   | 222   | 200   | 168    | 146    |
| <b>400A</b> | 300    | 300  | 296   | 250   | 226   | 191    | 167    |
| <b>450A</b> | 338    | 330  | 311   | 262   | 237   | 201    | 175    |
| <b>500A</b> | 375    | 344  | 323   | 272   | 246   | 207    | 180    |



**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.

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