

## CMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)



### Features

- Tin/Lead (Sn/Pb) or Tin (Sn) solder plated terminals.
- High interrupting current ratings for high power protection.
- Single small case size for current rating from 20A to 125A.
- High safety with ceramic body and special arc-extinguishing filler.
- Reliable functionality throughout prolonged use.
- Robust construction for maximum reliability.

### Applications

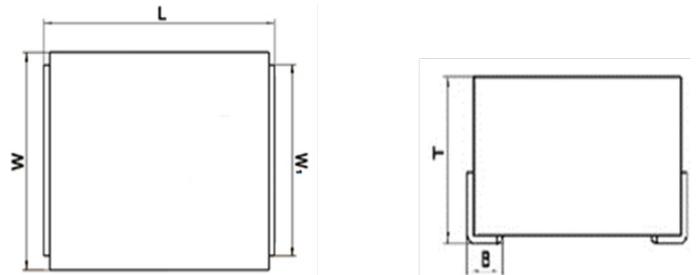
- Satellite/Spacecraft
- Aerospace
- Avionics
- Military
- Telecom DC/DC power
- Drones
- Battery and BMS
- PDU

### Product Dimensions

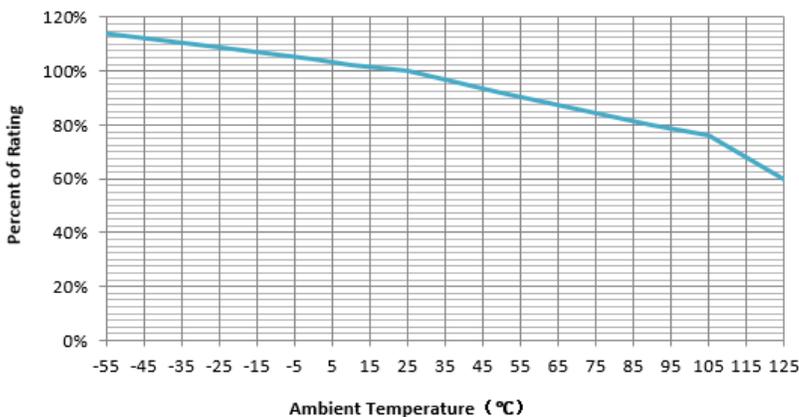
| Dimension | Inch          | mm        |
|-----------|---------------|-----------|
| L         | 0.287 ± 0.012 | 7.3 ± 0.3 |
| W         | 0.228 ± 0.008 | 5.8 ± 0.2 |
| W1        | 0.201 ± 0.008 | 5.1 ± 0.2 |
| T         | 0.165 ± 0.008 | 4.2 ± 0.2 |
| B         | 0.051 ± 0.012 | 1.3 ± 0.3 |

### Clearing Time Characteristics

| % Of Current Rating | Clearing Time @25°C |            |
|---------------------|---------------------|------------|
|                     | Min.                | Max.       |
| 100%                | 4 Hours             | -          |
| 250%                | -                   | 60 Seconds |

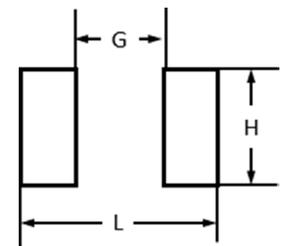


### Derating Curve



### Recommended Land Pattern

| Dimension | 2822           | Unit         |
|-----------|----------------|--------------|
| L         | 0.386<br>(9.8) | Inch<br>(mm) |
| G         | 0.173<br>(4.4) | Inch<br>(mm) |
| H         | 0.228<br>(5.8) | Inch<br>(mm) |



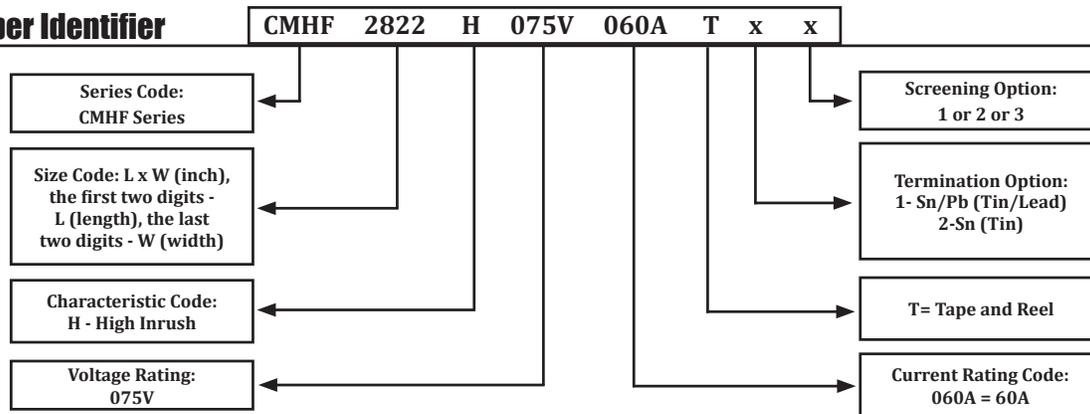
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### Electrical Characteristics

| Part Number          | Voltage Rating (VDC) | Current Rating (Amps) | Interrupting Rating  | Nominal DCR (mΩ)/1 | Nominal I <sup>2</sup> t (A <sup>2</sup> s)/2 | Marking Code/4 |
|----------------------|----------------------|-----------------------|--|--------------------|---|----------------|
| CMHF2822H125V020ATxx | 125                  | 20                    | 300A @125VDC<br>1,000A @ 75VDC <sup>3</sup><br>1,500A @ 48VDC <sup>3</sup> | 2.10               | 120   | ΔCMH<br>20 R   |
| CMHF2822H125V030ATxx |                      | 30                    |  | 1.35               | 270   | ΔCMH<br>30 R   |
| CMHF2822H125V040ATxx |                      | 40                    |  | 1.05               | 400   | ΔCMH<br>40 R   |
| CMHF2822H125V050ATxx |                      | 50                    |  | 0.85               | 600   | ΔCMH<br>50 R   |
| CMHF2822H075V060ATxx | 75                   | 60                    | 1,000A @ 75VDC <sup>3</sup><br>1,500A @ 48VDC <sup>3</sup>                 | 0.74               | 900   | ΔCMH<br>60 R   |
| CMHF2822H075V070ATxx |                      | 70                    |  | 0.61               | 1,400   | ΔCMH<br>70 R   |
| CMHF2822H075V080ATxx |                      | 80                    |  | 0.53               | 2,000   | ΔCMH<br>80 R   |
| CMHF2822H075V090ATxx |                      | 90                    |  | 0.48               | 2,400   | ΔCMH<br>90 R   |
| CMHF2822H075V100ATxx |                      | 100                   |  | 0.44               | 3,600   | ΔCMH<br>100 R  |
| CMHF2822H075V125ATxx |                      | 125                   |  | 0.38               | 6,000   | ΔCMH<br>125 R  |

1- Measured at ≤10% rated current and 25°C ambient.  
 2- Melting I<sup>2</sup>t at 1000% of current rating.  
 3- Time constant of interrupting test less than 0.1ms.  
 4- Laser marking character code.

### Part Number Identifier



### Standard Screening Options:

- Standard 100% visual inspection per MIL-PRF-23419/13, AS9102 FAIR, MIL-STD-1580 DPA.
- Option 2: Group A and B Screening per MIL-PRF-23419/13, AS9102 FAIR, MIL-STD-1580 DPA (see AEM detail specification for more details).
- Option 3: Group A, B, and C Screening per MIL-PRF-23419/13, AS9102 FAIR, MIL-STD-1580 DPA (see AEM Detail Specification for more details).

### Termination Options:

- Tin/Lead (Sn/Pb)
- Tin (Sn)

### General Specification:

- Operating temperature: -55°C to +125°C. (With de-rating)
- Storage Temperature: -55°C to +125°C.
- Moisture sensitivity level: MSL=1.



Certified to  
AS9100D  
ISO 9001:2015



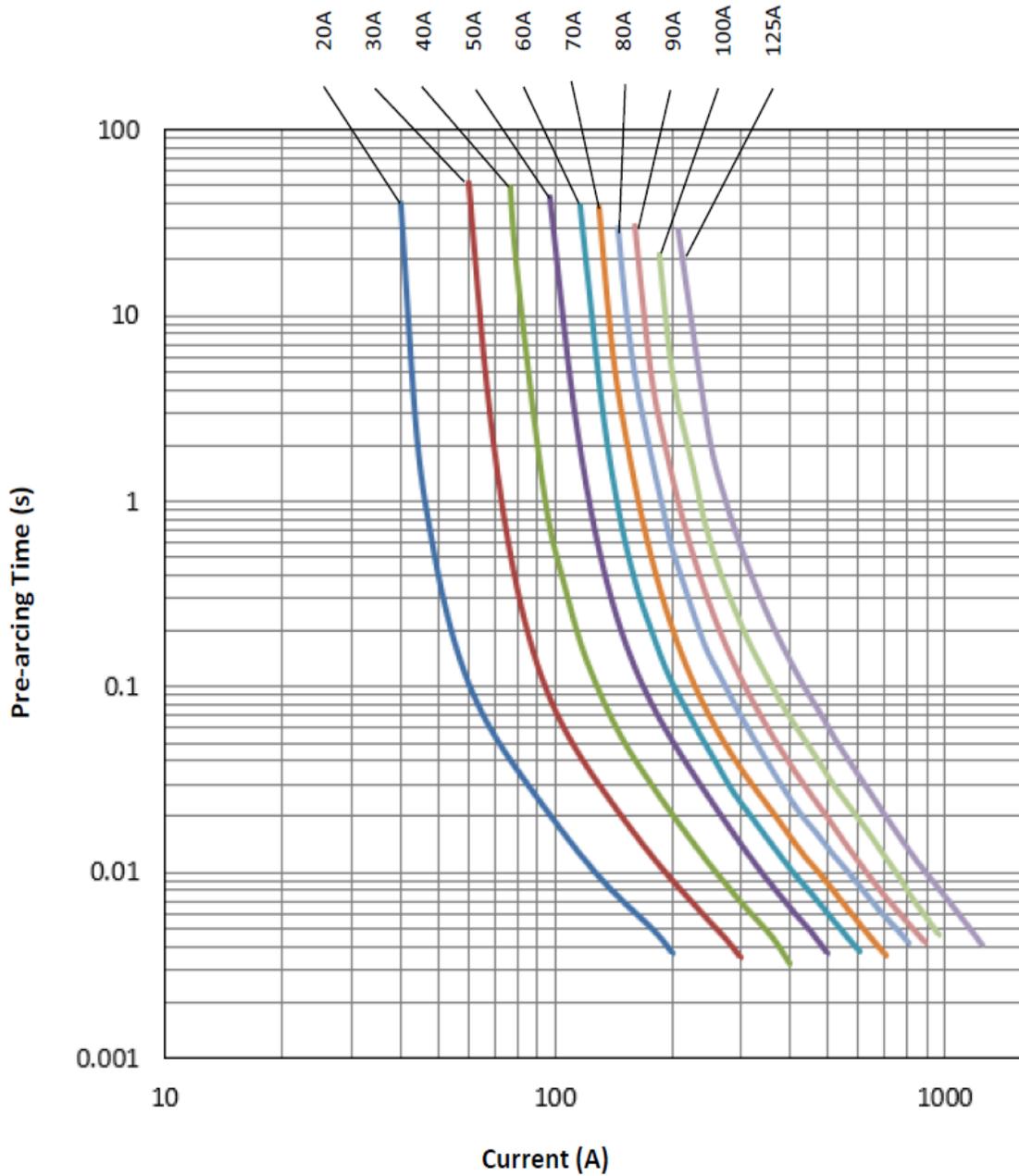
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### Reliability Tests:

| No. | Item                      | Condition   | Criteria   |
|-----|---------------------------|---|--|
| 1   | Bend                      | 2mm bend  | DCR change within $\pm 20\%$ , no mechanical damage                                  |
| 2   | Solderability             | 245°C, 5 seconds  | New solder coverage $\geq 95\%$  |
| 3   | Soldering Heat Resistance | 260°C, 10 seconds   | DCR change within $\pm 20\%$ , new solder coverage 75% minimum, no mechanical damage |
| 4   | Terminal Strength         | Gradually apply 1.8 kg force to the bottom of the part for 60 seconds | DCR change within $\pm 20\%$ , no mechanical damage                                  |
| 5   | Life                      | 80% rated current, 2000 hours, ambient temperature +20°C to +30°C     | Voltage drop change within $\pm 20\%$  |
| 6   | Thermal Shock             | -65°C to +125°C, 100 cycles   | DCR change within $\pm 20\%$ , no mechanical damage                                  |
| 7   | Mechanical Vibration      | 5–3000 Hz, 0.4 inch double amplitude or 30 G peak                     | DCR change within $\pm 20\%$ , no mechanical damage                                  |
| 8   | Mechanical Shock          | 1500 G, 0.5 milliseconds, half-sine shocks                            | DCR change within $\pm 20\%$ , no mechanical damage                                  |
| 9   | Salt Spray                | 5% salt solution, 48 hours exposure                                   | DCR change within $\pm 20\%$ , no excessive corrosion                                |
| 10  | Moisture Resistance       | 10 cycles   | DCR change within $\pm 20\%$ , no excessive corrosion                                |

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**Average Pre-arcing Time Curves**



**CMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)**

**Average I<sup>2</sup>t vs. t Curves**

