

High Power Surface Mount Fuse

CM2822H Series

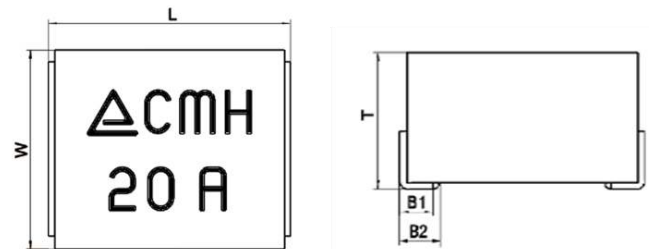


Features:

- High safety with ceramic body and special arc-extinguishing filler
- High interrupting current ratings for high power input protection
- Up to 125A with very low profile
- High reliability for long time operation
- Halogen free, RoHS compliant and 100% lead-free

Shape and Dimensions:

| Unit | Inch | mm |
|------|---------------|-----------|
| L | 0.287 ± 0.012 | 7.3 ± 0.3 |
| W | 0.228 ± 0.008 | 5.8 ± 0.2 |
| T | 0.165 ± 0.008 | 4.2 ± 0.2 |
| B1 | 0.051 ± 0.012 | 1.3 ± 0.3 |
| B2 | 0.063 ± 0.012 | 1.6 ± 0.3 |



Applications:

- Server Systems
- Routers and switches
- Telecom DC/DC Power

Clearing Time Characteristics:

| % of Current Rating | Clearing Time at 25°C | |
|---------------------|-----------------------|------------|
| | Min. | Max. |
| 100% | 4 hours | |
| 250% | | 60 seconds |

Agency Approval:

Recognized Under the Components Program of Underwriters Laboratories. File Number: E507943.

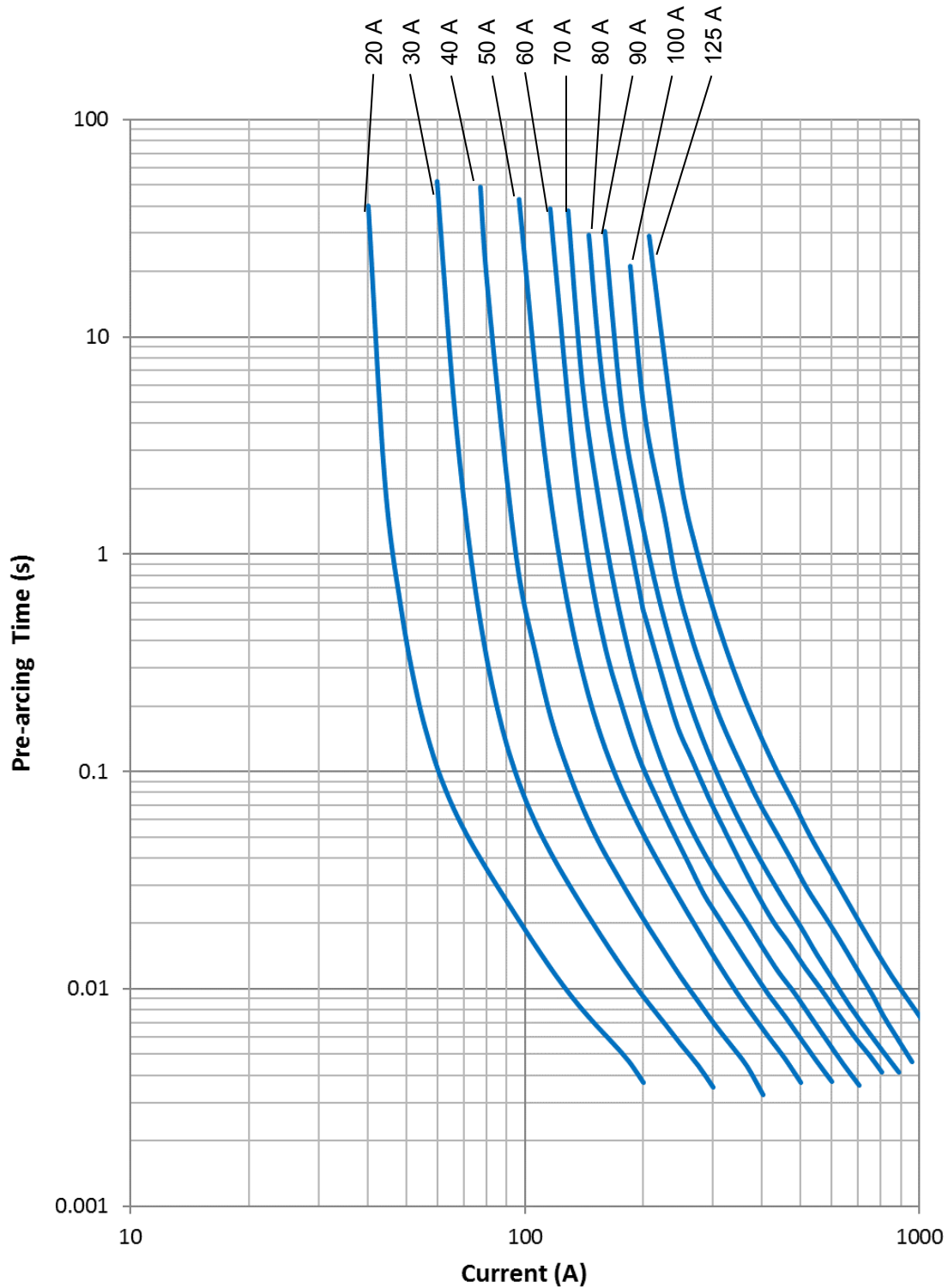
Ordering Information:

| Part Number | Current Rating (A) | Voltage Rating (VDC) | Interrupting Rating | Nominal DCR (mΩ) | Nominal I ² t (A ² s) |
|--------------|--------------------|----------------------|---|------------------|---|
| CM2822H20A0T | 20 | 125 | 300A @ 125VDC 1000A @ 75VDC 1500A @ 48VDC | 2.10 | 120 |
| CM2822H30A0T | 30 | | | 1.35 | 270 |
| CM2822H40A0T | 40 | | | 1.05 | 400 |
| CM2822H50A0T | 50 | | | 0.85 | 600 |
| CM2822H60A0T | 60 | 75 | 1000A @ 75VDC 1500A @ 48VDC | 0.74 | 900 |
| CM2822H70A0T | 70 | | | 0.61 | 1400 |
| CM2822H80A0T | 80 | | | 0.53 | 2000 |
| CM2822H90A0T | 90 | | | 0.48 | 2400 |
| CM2822H100AT | 100 | | | 0.44 | 3600 |
| CM2822H125AT | 125 | | | 0.38 | 6000 |

1. Measured at ≤10% rated current and 25°C ambient
2. Melting I²t at 10X In
3. Time Constant of Interrupting Test less than 0.1ms

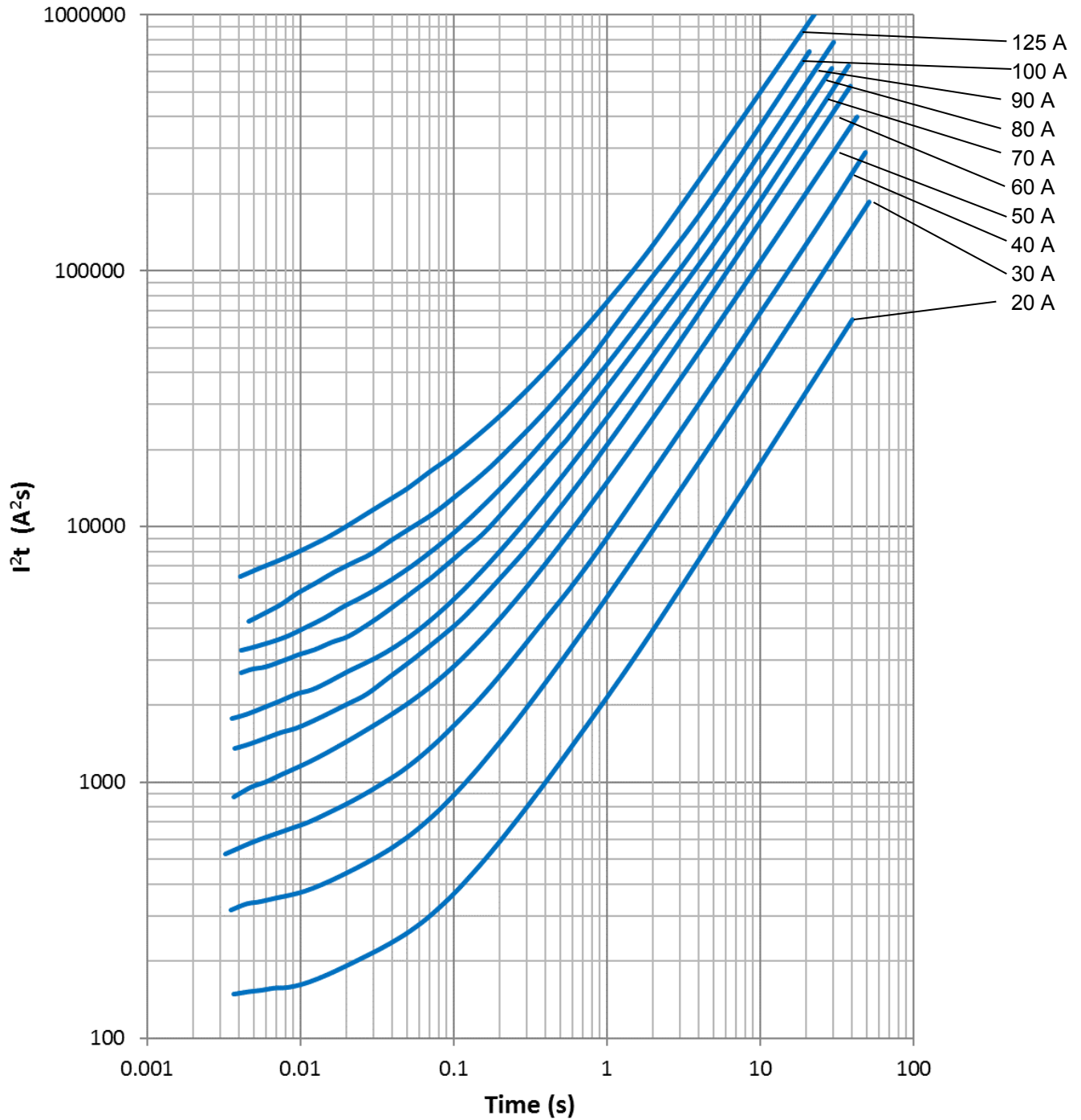
High Power Surface Mount Fuse H Series

Clearing Time vs. Current Curves:



High Power Surface Mount Fuse H Series

Average I^2t vs. t Curves:



High Power Surface Mount Fuse

H Series

Product Identification:

CM 2822 H 20A0 T

(1) (2) (3) (4) (5)

(1) **Product Code:** CM-Commercial Molding Fuse

(2) **Size code: L x W (inch):** the first two digits - L (length), the last two digits - W (width)

(3) **Series code:** H

(4) **Current rating code:** e.g. 20A0: 20.0A

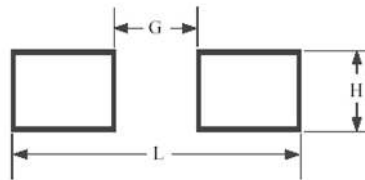
(5) **Package code:** T - Tape & Reel, B - Bulk

Marking: Top Line:  AEM Logo; CMH: CM2822H Series

Bottom Line: Current Rating Code

Recommended Land Pattern:

| | |
|--------------------|-------------|
| Chip Size | 2822 (7358) |
| L Inch (mm) | 0.386 (9.8) |
| G Inch (mm) | 0.173 (4.4) |
| H Inch (mm) | 0.228 (5.8) |

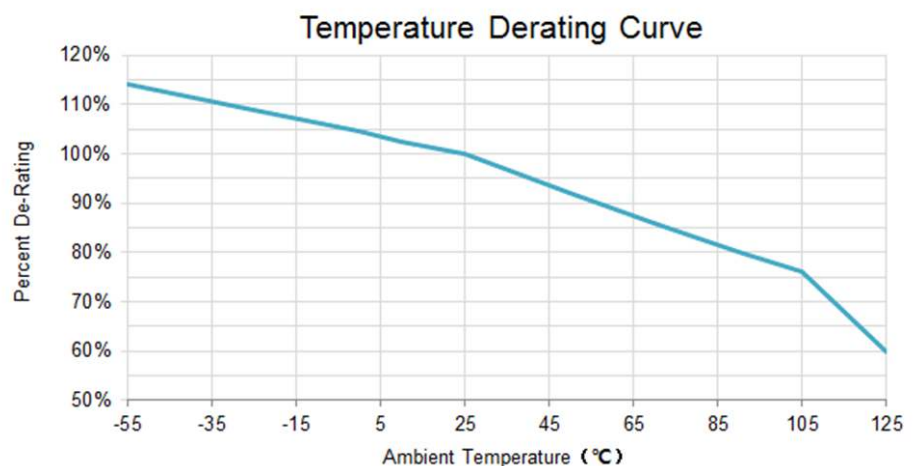


Packaging:

| Chip Size | Parts on 13 inch (330 mm) Reel |
|-----------|--------------------------------|
| 2822 | 1000pcs |

Fuse Selection and Temperature De-rating Guideline:

The ambient temperature affects the current carrying capacity of fuses. When a fuse is operating at a temperature higher than 25°C, the fuse shall be “de-rated” according to the de-rating curve.

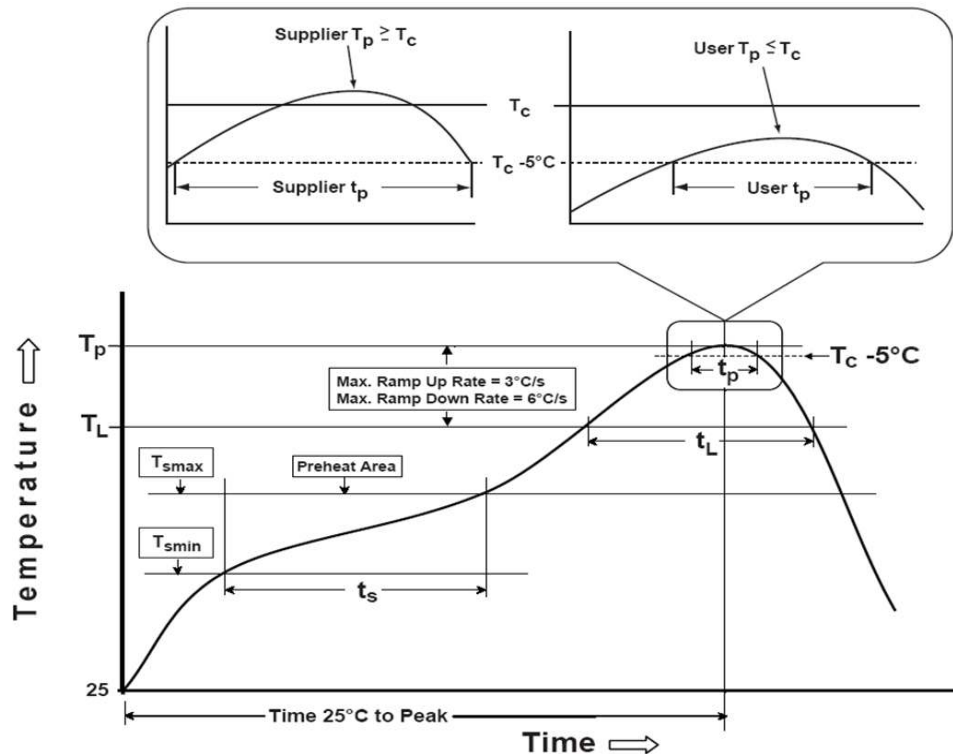


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H Series

Recommended Temperature Profile for Reflow Soldering:

| Profile Feature | Pb-Free Assembly |
|--|------------------|
| Preheat/Soak | |
| Temperature Min (T_{smin}) | 150°C |
| Temperature Max (T_{smax}) | 200°C |
| Time (t_s) from (T_{smin} to T_{smax}) | 60~120 seconds |
| Ramp-up rate (T_L to T_p) | 3°C/second max. |
| Liquidous temperature (T_L) | 217°C |
| Time (t_L) maintained above T_L | 60~150 seconds |
| Peak package body temperature (T_p) | 260°C |
| Time (t_p)* within 5°C of the specified classification temperature (T_c) | 30 seconds * |
| Ramp-down rate (T_p to T_L) | 6°C/second max. |
| Time 25°C to peak temperature | 8 minutes max. |
| * Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum | |



Recommended conditions for hand soldering:

1. Appropriate temperature (max.) of soldering iron tip/soldering time (max.): 280°C / 10 s or 350°C / 3 s
2. Using hot air rework station with tip that can melt the solder on both terminations at the same time is strongly recommended. Do not directly contact the chip termination with the tip of soldering iron.

Storage:

The maximum ambient temperature shall not exceed 35°C . Storage temperatures higher than 35°C could result in the deformation of packaging materials.

The maximum relative humidity recommended for storage is 75%. High humidity with high temperature can accelerate the oxidation of the solder plating on the termination and reduce the solderability of the components.

The products shall not be stored in areas where harmful gases containing sulfur or chlorine are present.

MSL=1

Disclaimer

Specifications are subject to change without notice. AEM products are designed for specific applications and should not be used for any purpose (including, without limitation, automotive, aerospace, medical, life-saving applications, or any other application which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property) not expressly set forth in applicable AEM product documentation. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Warranties granted by AEM shall be deemed void for products used for any purpose not expressly set forth in applicable AEM product documentation. AEM shall not be liable for any claims or damages arising out of products used in applications not expressly intended by AEM as set forth in applicable AEM product documentation. The sale and use of AEM products is subject to AEM terms and conditions of sale. Please refer to AEM's website for updated catalog and terms and conditions of sale.