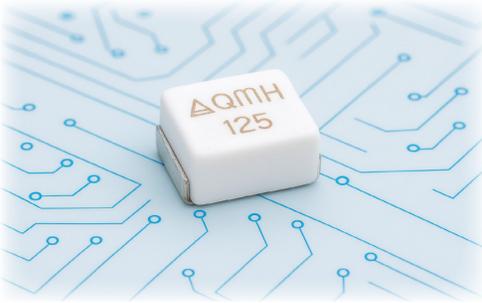


## QMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)



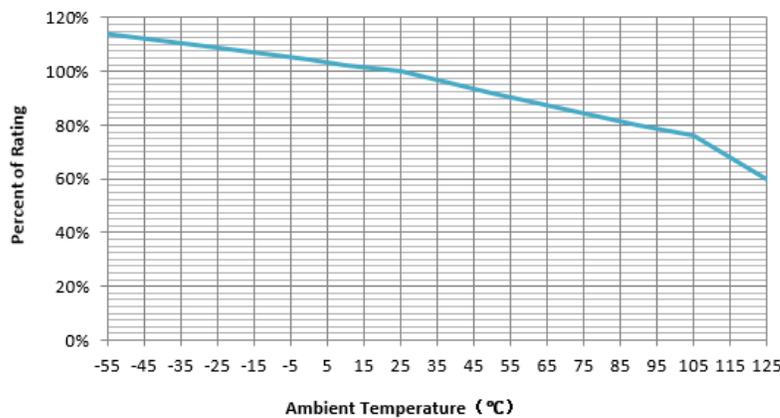
### Features

- 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 40A to 125A.
- High safety with ceramic body and special arc-extinguishing filler.
- Reliable functionality throughout prolonged use.
- Robust construction for maximum reliability.

### Clearing Time Characteristics

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

### Derating Curve

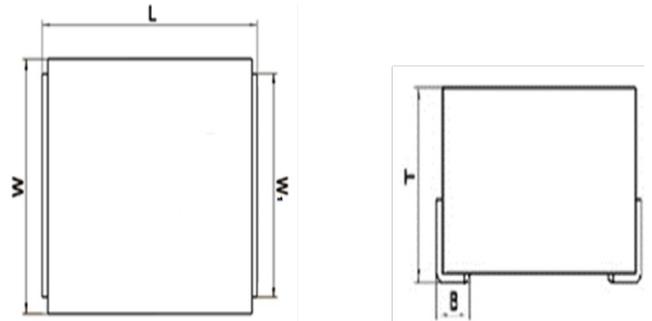


### Applications

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

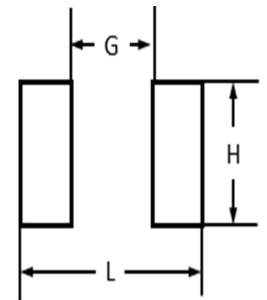
### Product Dimensions

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



### Recommended Land Pattern

Dimension	2822	Unit
L	0.386 (9.8)	Inch (mm)
G	0.173 (4.4)	Inch (mm)
H	0.228 (5.8)	Inch (mm)



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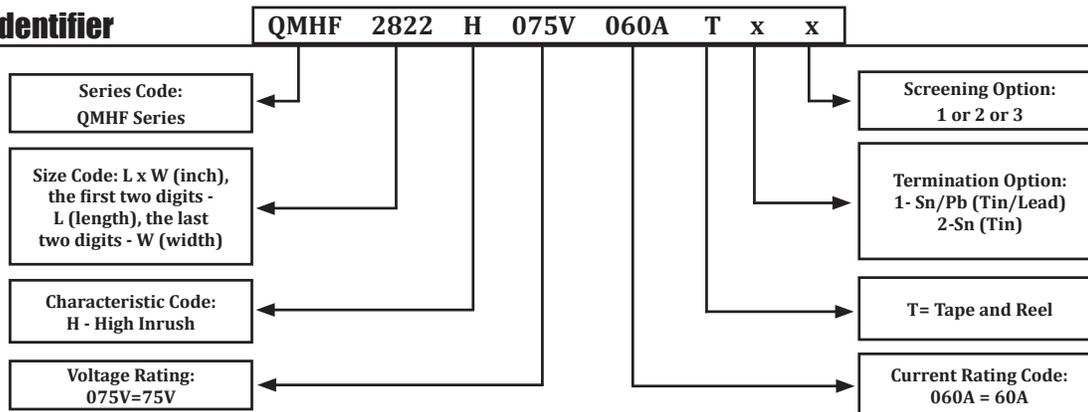
### Electrical Characteristics

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
QMHF2822H125V040ATxx	125	40	300A @ 125VDC 1,000A @ 75VDC <sup>3</sup> 1,500A @ 48VDC <sup>3</sup>	1.05	400	△QMH 40
QMHF2822H125V050ATxx	125	50		0.85	600	△QMH 50
QMHF2822H075V060ATxx	75	60	1,000A @ 75V DC <sup>3</sup> 1,500A @ 48V DC <sup>3</sup>	0.74	900	△QMH 60
QMHF2822H075V070ATxx	75	70		0.61	1400	△QMH 70
QMHF2822H075V080ATxx	75	80		0.53	2000	△QMH 80
QMHF2822H075V090ATxx	75	90		0.48	2400	△QMH 90
QMHF2822H075V100ATxx	75	100		0.44	3600	△QMH 100
QMHF2822H075V125ATxx	75	125		0.38	6000	△QMH 125

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.
- Storage Temperature: -55°C to +125°C.
- Moisture sensitivity level: MSL=1.



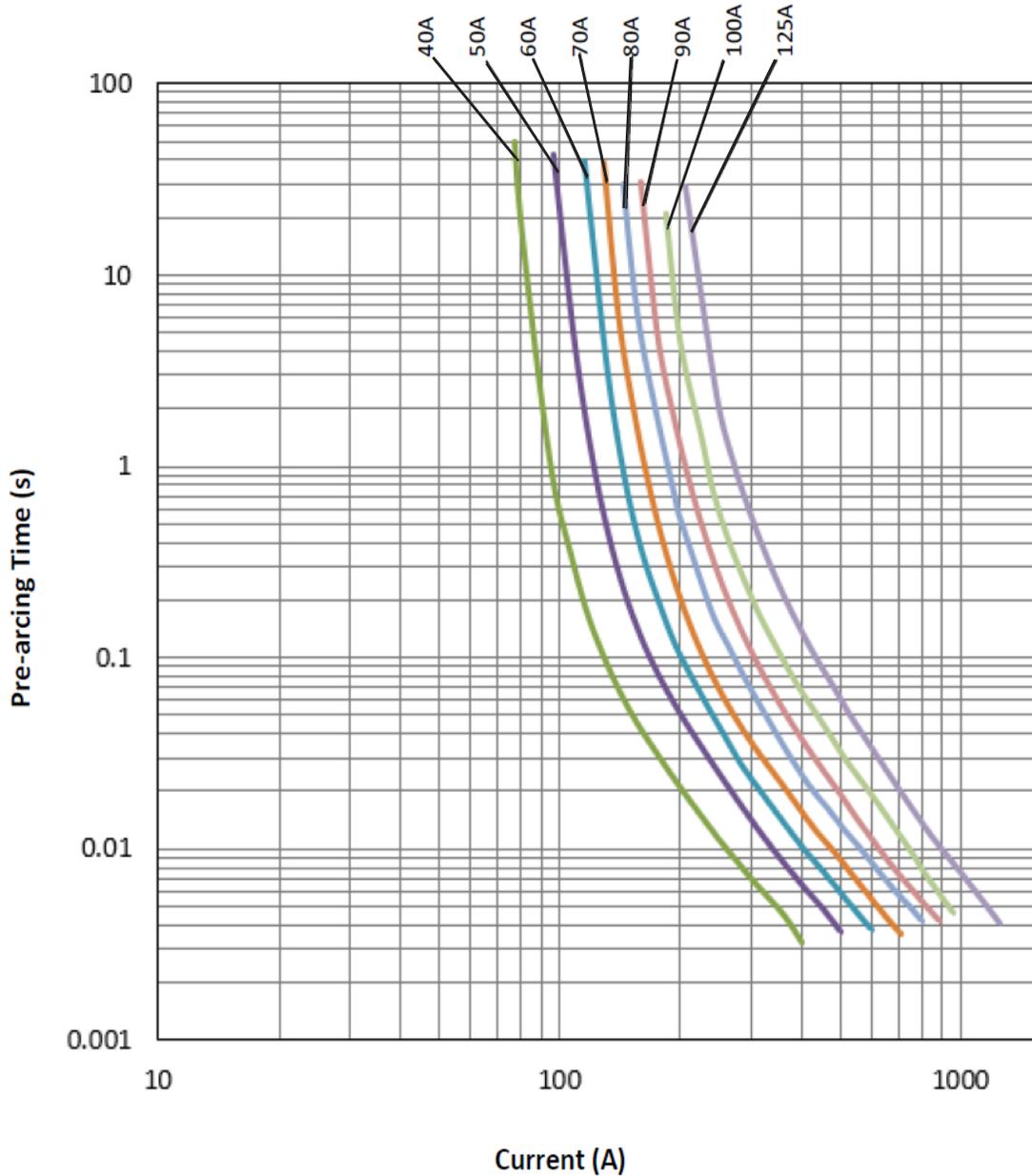
## QMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)

### Reliability Tests:

No.	Item	Condition	Criteria
1	High temperature storage	Subject fuses to +125°C for 1000 hours	DCR change within ±20%, no observed damage
2	Low temperature storage	Subject fuses to -65°C for 1000 hours	DCR change within ±20%, no observed damage, post electrical test not required
3	Temperature Cycling	Subject fuses to 1000 temperature cycles, 30min at -65°C lowest temp and 30min at +125°C highest temp	DCR change within ±20%, no observed damage
4	Biased Humidity	Subject fuses to +85°C / 85%RH with 10% rated current for 1000 hours	DCR change within ±20%, no excessive corrosion
5	High Temperature Operating Life	+125°C for 1000 hours. Load setting: 75% (current de-rating)* 60% (temp. de-rating) * Rated current	DCR change within ±20%, no observed damage
6	Mechanical Vibration	0.4" D.A. or 30G between 5 and 3000 Hz, along 3 mutually perpendicular axes for a total of 12 hours	DCR change within ±20%, no mechanical damage
7	Mechanical Shock	1500G, 0.5 ms, half sine shocks in 6 major directions along 3 mutually perpendicular axes	DCR change within ±20%, no mechanical damage
8	Resistance to Soldering Heat	One dip at 260°C for 10 seconds.	DCR change within ±20%, new solder coverage 75% minimum, no damage
9	Salt spray	5% salt solution, 48 hours exposure	DCR change within ±20%, no excessive corrosion, post electrical test not required
10	Solderability	245°C for 5 seconds	New solder coverage 95% minimum, post electrical test not required
11	Terminal Strength	Apply 17.7N (1.8kg) force gradually to the side of the fuse, this force shall be applied for 60 seconds	DCR change within ±20%, no mechanical damage
12	Board Flex	Apply a force that will bend the board distance of x=2 mm, and the duration of the applied forces shall be 60 seconds	DCR change within ±20%, no mechanical damage
13	Electrical Characterization	Conducted electrical characterization test at minimum, ambient and maximum operating temperatures; Current carrying capacity test with temperature de-rating; Overload test at 250% of current rating	Current carrying capacity: 4 hours minimum; 250% Overload: 60 seconds maximum; Interrupting test: meet interrupting ratings capability
14	Post -stress Electrical Test	Current carrying capacity: half of samples, test at room ambient temperature; Overload test: half of samples, test at room ambient temperature and 250% of current rating	Current carrying capacity: 4 hours minimum; 250% Overload: 60 seconds maximum

**QMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)**

**Average Pre-arcing Time Curves**



**QMHF2822H High Power Surface Mount Fuse Series (High Inrush, 2822 Size)**

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

