

Fast Acting High Current Brick Fuse Ampere Rating 20-100A

Description

- Fast Acting High current brick fuse
- Surface mount design to save space
- Ceramic Square body with end cap
- Designed to UL248-1
- Fully compatible with lead-free solder and high temperature profile associated with lead-free assembly



Applications

- Power battery protection
- Test equipment
- Power supplies
- Game systems
- Industrial equipment
- Telecom system

Electrical Characteristics

Amp Rating	% of Amp Rating	Opening Time
20~100A	1.0 In	4 hour min.
	2.0 In	<60s

Specifications



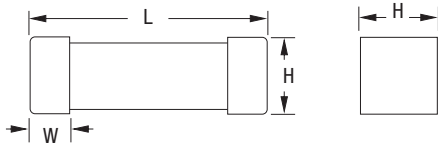
Part No.	Dimensions (mm)	Rated Current (A)	Breaking Capacity	Typ. Cold Resistance (mΩ)	Pre-Arcing I ² t (A ² Sec)
1240FH-20A	10 x 3.15	20	250Vac @ 150A	2.35	23
1240FH-25A	10 x 3.15	25	125Vac @ 150A	2.12	45
1240FH-30A	10 x 3.15	30	80Vdc @ 800A	1.51	98
1240FH-40A	12 x 4.5	40		1.12	432
1240FH-50A	12 x 4.5	50		0.97	596
1240FH-60A	12 x 4.5	60	125Vac @ 500A 72Vdc @ 1000A	0.66	873
1240FH-80A	12 x 4.5	80		0.48	1712
1240FH-100A	12 x 4.5	100		0.35	4166

- AC Interrupting Rating (Measured at designated voltage, 100% power factor random closing)
- DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)
- Typical Pre-arcing I²t are measured at 10In Current, DC battery bank, but not exceeding the interrupting rating, time constant of calibrated circuit less than 50 microseconds)

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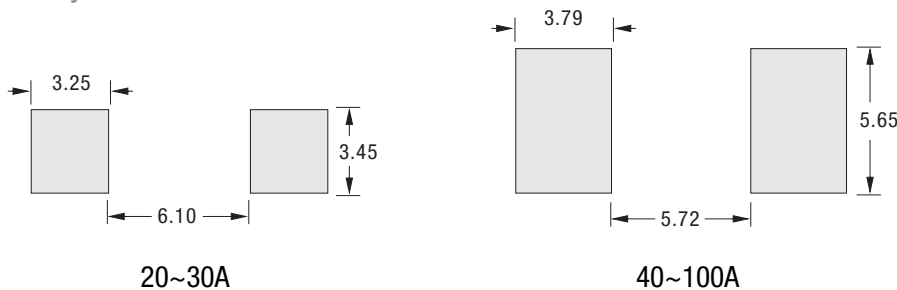
Dimension

Unit: mm



Amp Rating	L	W	H
20~30A	10.0±0.30	1.7±0.10	3.15±0.10
40~100A	12.30±0.40	2.70±0.20	4.50±0.20

Pad layout

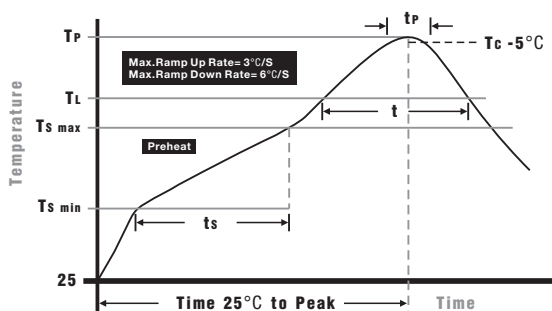


20A-30A: Recommend trace thickness is 3oz, the minimum trace width is 10mm
 40A-50A: Recommend trace thickness is 3oz, the minimum trace width is 15mm
 60A-70A: Recommend trace thickness is 3oz, the minimum trace width is 22mm
 80A-100A: Recommend trace thickness is 6oz, the minimum trace width is 33mm

Packaging

- 20A to 30A Quantity: 1,500pcs
- 40A to 100A Quantity: 1,000pcs
- 24mm wide tape on 330mm (13 inch) diameter reel -specification EIA Standard 481.

Soldering Parameters



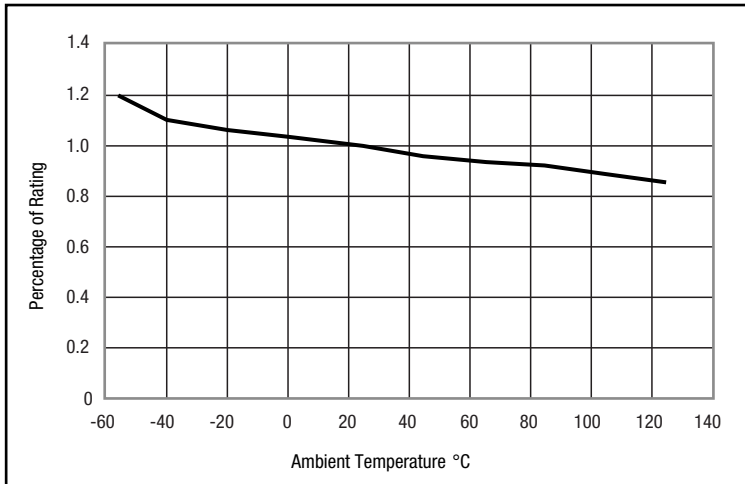
Wave Soldering: 260°C, 10 seconds max.
 Infrared Reflow: 260°C, 30 seconds max.

IR Reflow Profile

Preheat Heat	
Temperature min (T _{min})	150°C
Temperature max (T _{max})	200°C
Time (T _{min} to T _{max}) (t _s)	60 - 180 seconds
Average ramp-up rate (T _{max} to T _p)	5°C/second max.
Liquidous temperature (T_L)	
Time at liquidous (t _l)	60 - 150 seconds
Peak temperature (T_p)	
Peak temperature (T _p)	260+0/-5°C
Time within 5°C of actual peak Temperature (t_p)	
Time within 5°C of actual peak Temperature (t _p)	10 - 30 seconds
Average ramp-down rate (T _p to T _{max})	5°C/second max.
Time 25°C to peak temperature	
Time 25°C to peak temperature	8 minutes max.

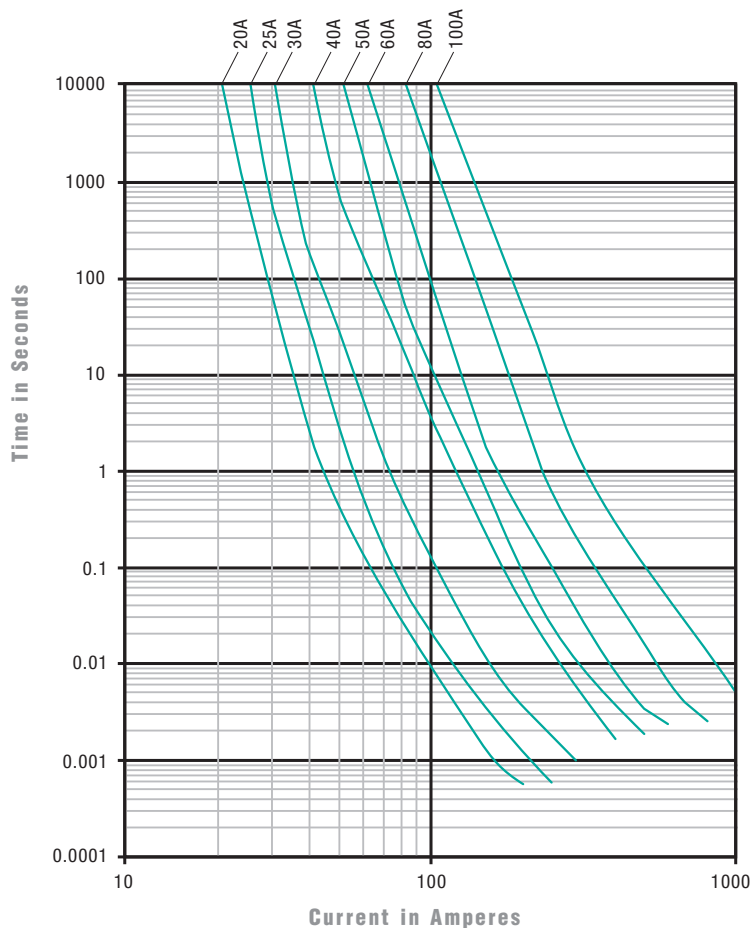
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Temperature Re-rating Curve



- Normal Operating Temperature: 25°C ± 2°C
- Operating Temperature: -55°C to 125°C with proper correction factor applied.
- Chart of correction factor.

Time-Current Curves



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