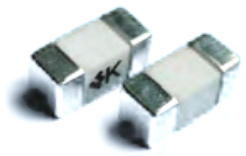
PROSEMI
Circuit Protection

High Current Brick Fuse
Ampere Rating 15-60A

DHC45 Series

Descriptions

- High current brick fuse
- Surface mount deign to save space
- Ceramic Suqare body with end cap design
- Designed to UL248-1/14
- 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
15~60A	1.0 In	4 hour min.
	3.5 In	10s max.

Specifications

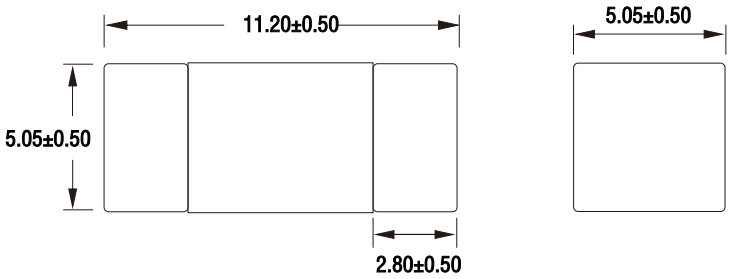
Part No.	Rated Current (A)	Rated Voltage (V)	Breaking Capacity DC [1]	Typ. Cold Resistance (mΩ)	Typical Voltage Drop (mV)	Pre-Arcing I^2t (A^2Sec) [2]
DHC45-15A	15	85V /dc [3] 72V /dc 63V /dc 60V /dc [4]	85Vdc @ 1000A 72Vdc @ 1000A 63Vdc @ 1000A 60Vdc @ 1500A	4.42	90	210
DHC45-20A	20			3.10	85	340
DHC45-25A	25			1.57	55	300
DHC45-30A	30			1.26	55	500
DHC45-35A	35			1.07	55	750
DHC45-40A	40			0.85	53	1200
DHC45-50A	50			0.65	45	2300
DHC45-60A	60			0.56	40	2800

1.DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)
2.Typical Pre-arcing I^2t are measured at 10In Current, DC battery bank, but not exceeding the interrupting rating, time constant of calibrated circuit less than 50 microseconds)
3.TUV Approval is 85/72/63Vdc,1000A, UL Approval is 72/63Vdc, 1000A
4.Self-certified for 60Vdc/1500A.

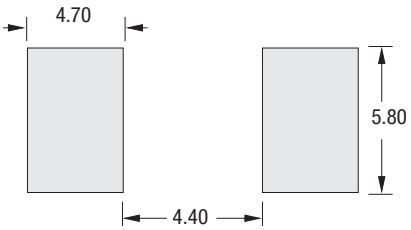
High Current Brick Fuse — DHC45 Series

Dimension

Unit: mm

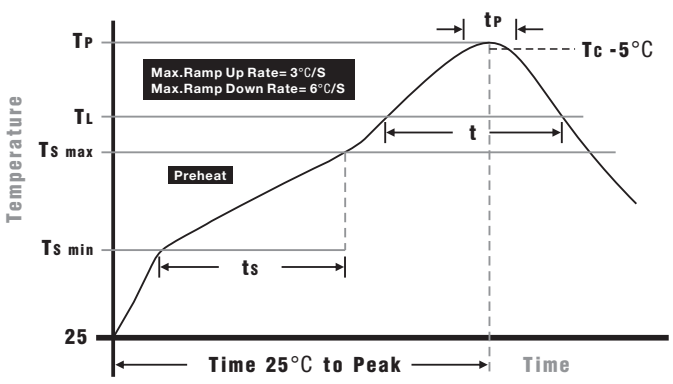


Pad layout



Recommend trace thickness is 3oz, the minimum trace width is 15mm, 15~35A
Recommend trace thickness is 3oz the minimum trace width is 22mm, 40~60A
Recommend solder thickness is 0.15mm;

Soldering Parameters



IR Reflow Profile

Preheat Heat **Temperature min (Tsmin)** **Temperature max(Tsmax)** **Time (Tsmin to Tsmax) (ts)**	 150°C 200°C 60 -120 seconds
Average ramp-up rate (Tsmax to Tp)	3°C/second max.
Liquidous temperature (TL) **Time at liquidous (tL)**	217°C 60 - 150 seconds
Peak Package body temperature(Tp)	260 °C
Time within 5°C of actual peak Temperature (tp)	30 seconds
Average ramp-down rate (Tp to Tsmax)	6°C/second max.
Time 25 °C to peak temperature	8 minutes max.

Soldering Characteristics

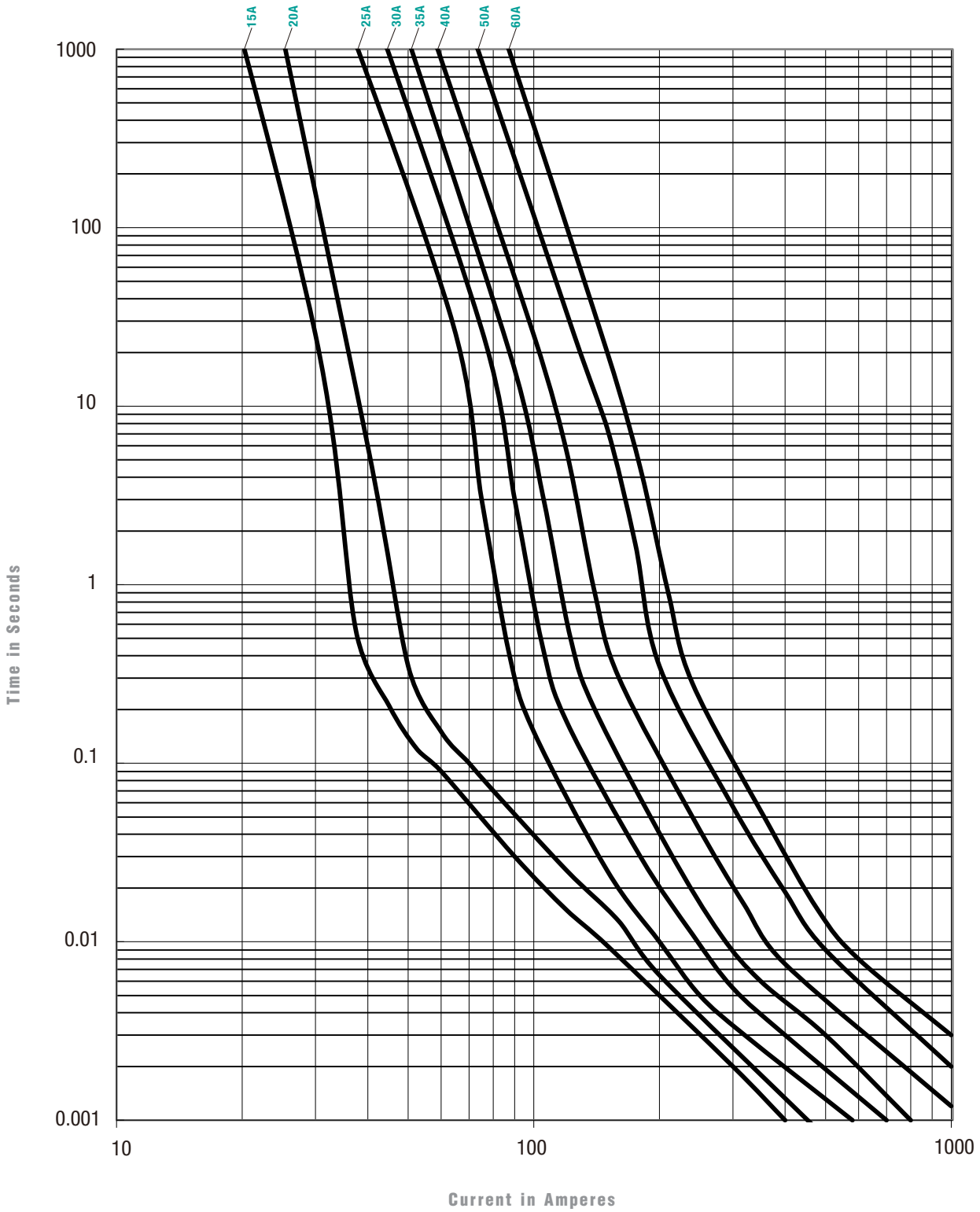
Reflow Soldering

- Temperature: 260°C
- Time: 30 Seconds Maximum

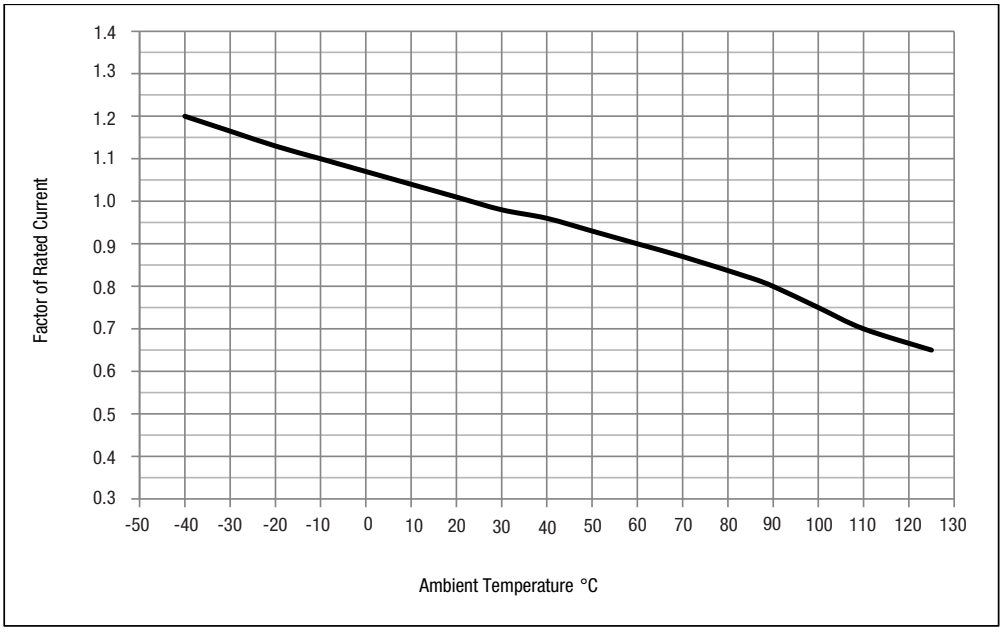
Manual Soldering (not recommended)

- Temperature: 350°C
- Time: 5 Seconds Maximum

Time-Current Curves



Temperature Re-rating Curve



- Normal Operating Temperature: 25°C± 2°C
- Operating Temperature: -40°C to 125°C with proper correction factor applied.
- Chart of correction factor.

Packaging

Quantity**:** 1, 000pcs
24mm wide tape on 330mm (13 inch) diameter
reel -specification EIA Standard 481.