

# High Current Brick Fuse

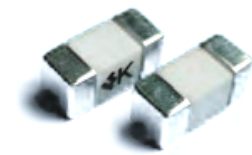
## 5a dYfY F Uhb[ '15!60A

# DHC45 Series



### Descriptions

- High current brick fuse
- Surface mount deign to save space
- Ceramic Square 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 <sup>1</sup>	Typ. Cold Resistance (mΩ)	Typical Voltage Drop (mV)	Pre-Arcing I <sup>2</sup> t(A <sup>2</sup> Sec) <sup>2</sup>
DHC45-15A	15	85V /dc <sup>3</sup> 72V /dc 63V /dc 60V /dc <sup>4</sup>	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

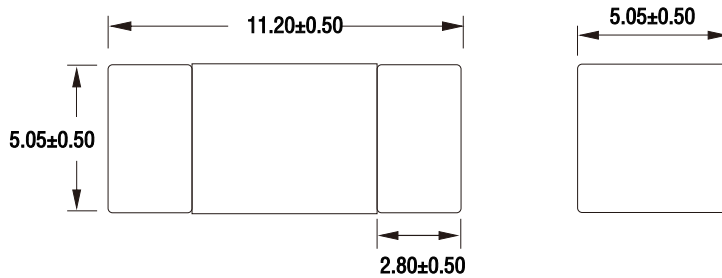
1. DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)  
 2. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current, DC battery bank, but not exceeding the interrupting rating, time constant of calibrated circuit less than 50 microseconds)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

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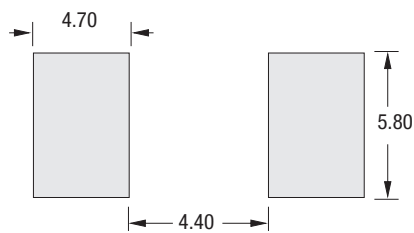
# DHC45 Series

## Dimension

Unit: mm

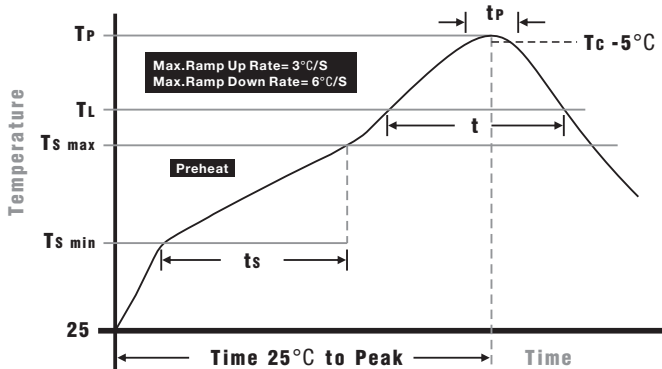


Pad layout



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

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

## Soldering Characteristics

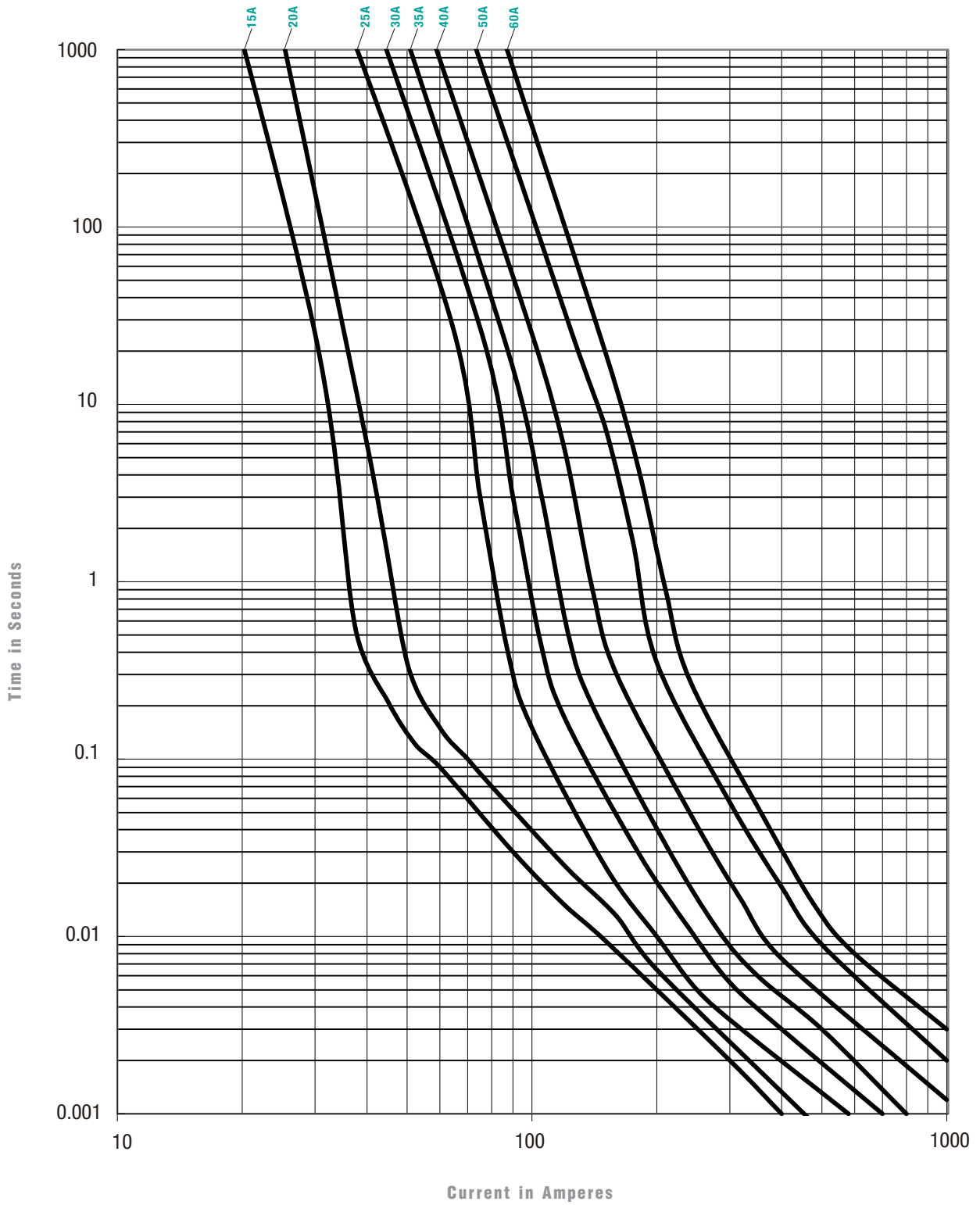
### Reflow Soldering

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

### Manual Soldering (not recommended)

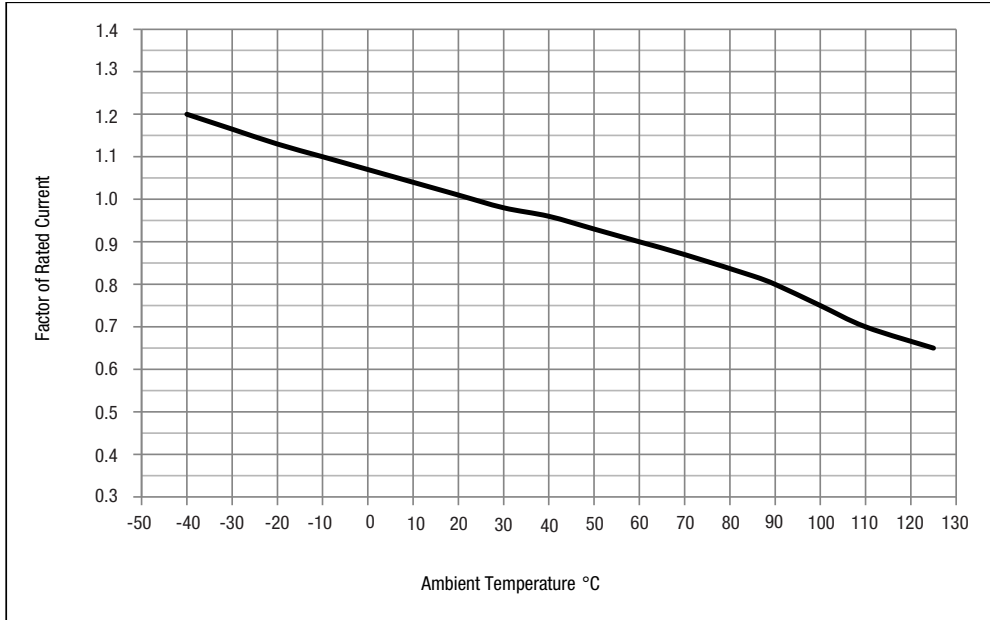
- Temperature: 350°C
- Time: 5 Seconds Maximum

## Time-Current Curves



# High Current Brick Fuse DHC45 Series

## Temperature Re-rating Curve



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

## Packaging

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

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