

# High Current Brick Fuse

## A115001 Series



### Description

- High inrush/surge current withstanding capability brick fuse
- Surface mountable high current fuse
- Very low cold resistance, temperature rise, and voltage drop



### Benefits

- Single fuse solution for high current application
- Suitable for a wide variety of voltage requirement and application
- Enhances power efficiency
- Avoids nuisance opening due to high inrush and surge current inherent in the system; Can withstand below condition:

On 2.5In/0.3Sec; Off 4Sec; 5000 times cycle

- Compatible with high volume assembly requirement

### Electrical Characteristics

Amp Rating	1.0In	3.5In
20A-60A	4 hours min.	10s max.

### Specifications

Specification						
Part No.	Rated Voltage	Rated Current	Breaking Capacity	Typ. Cold Resistance	Typical Voltage Drop	Typical Pre-Arcing I <sup>2</sup> t
	DC	A	DC <sup>1</sup>	(mΩ)	(mV)	(A <sup>2</sup> Sec) <sup>2</sup>
A115001.20	85V 72V 63V 60V <sup>3</sup>	20	1000A@85Vdc 1000A@72Vdc 1000A@63Vdc 1500A@60Vdc	3.10	55	340
A115001.25		25		1.57	55	300
A115001.30		30		1.26	55	500
A115001.35		35		1.07	55	750
A115001.40		40		0.85	53	1200
A115001.50		50		0.65	45	2300
A115001.60		60		0.56	40	2800

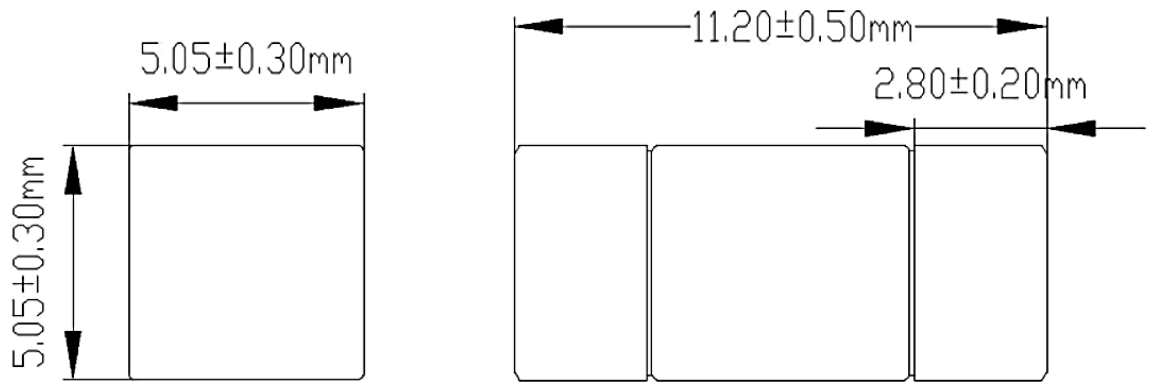
1. DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)
2. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current, DC battery bank, but not exceeding the interrupting rating, time constant of calibrated circuit less than 50 microseconds)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

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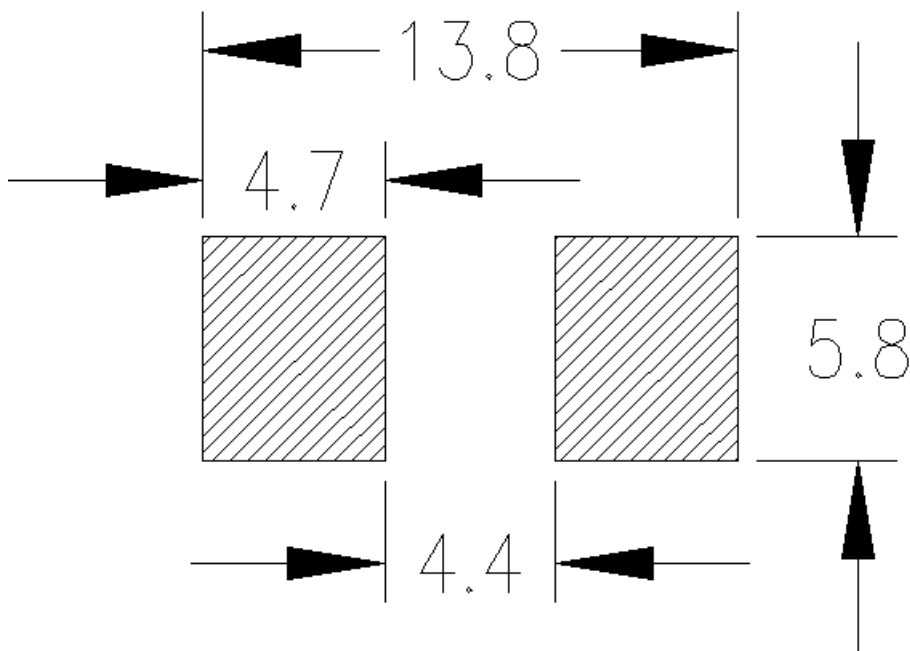
## A115001 Series



**Dimension**     Unit: mm



**Recommended Pad Layout**     Unit: mm

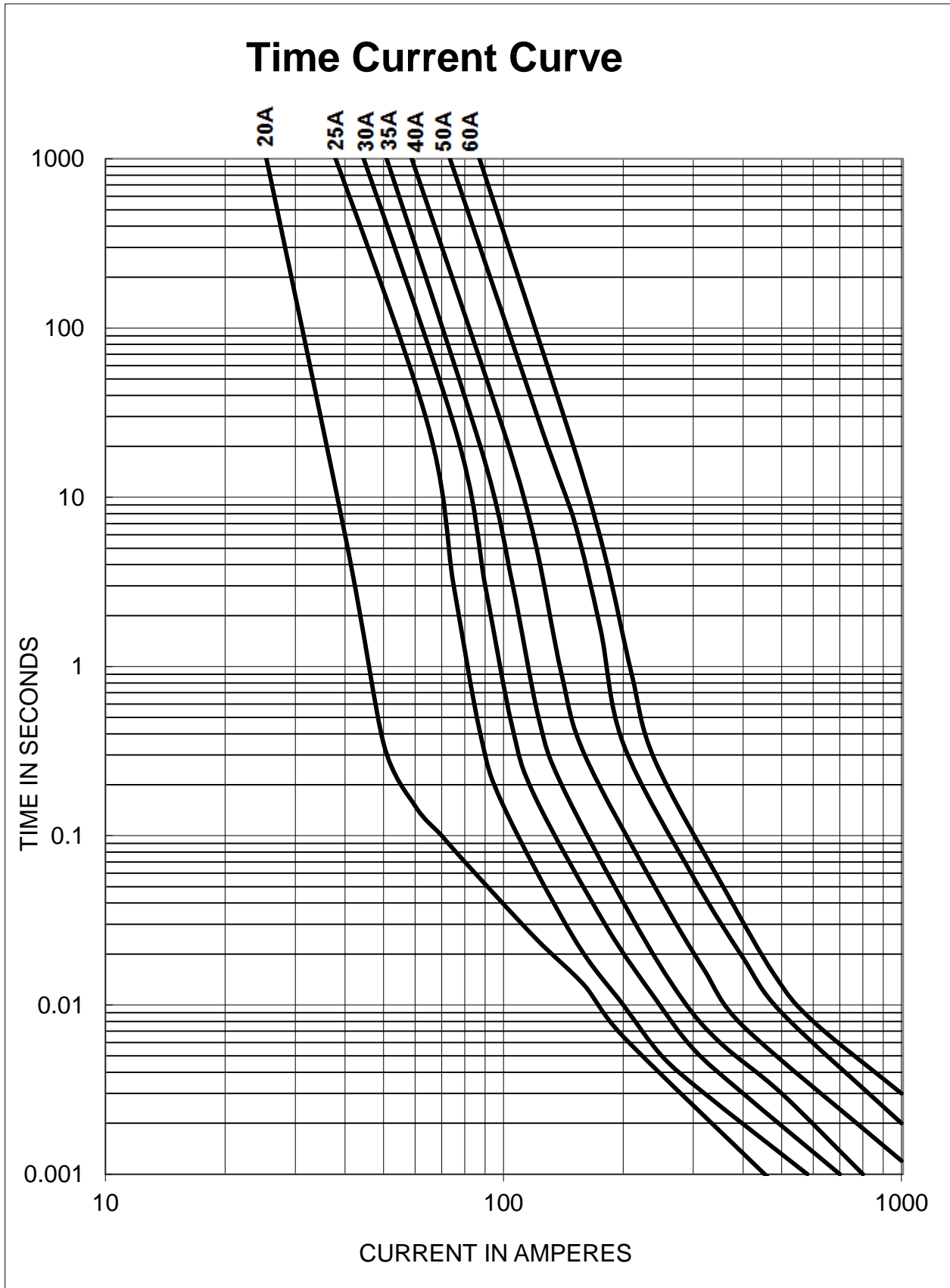


20A-35A: Recommend trace thickness is 3oz; the minimum trace width is 15mm;

40A-60A: Recommend trace thickness is 3oz; the minimum trace width is 22mm;

Recommend solder thickness is 0.15mm;

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\*\* 本产品为系统短路保护应用设计，最小保护电流为 3.5In.

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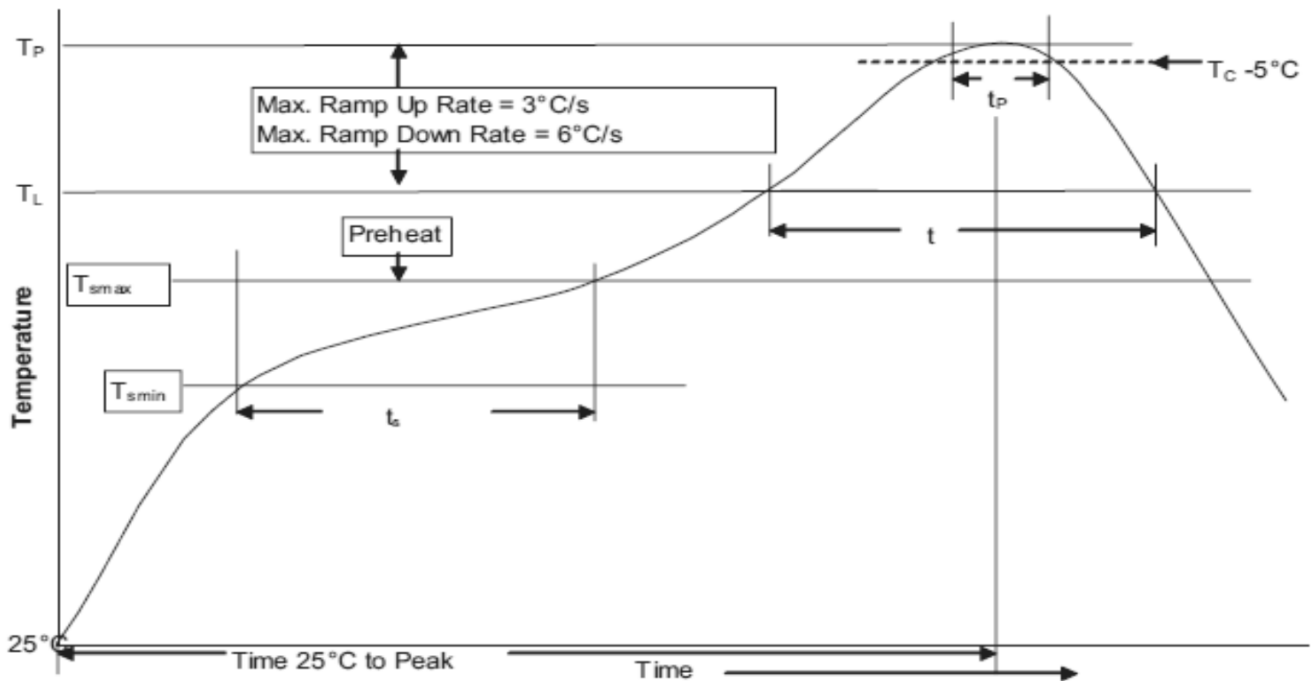
### Soldering Characteristics

#### Reflow Soldering

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

#### Manual Soldering (not recommended)

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



Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min. ( $T_{smin}$ )	150°C
	• Temperature max. ( $T_{smax}$ )	200°C
	• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60 - 120 Seconds
Average ramp up rate $T_{smax}$ to $T_P$		3°C / Second Max.
Liquidous temperature ( $T_L$ )		217°C
Time at liquidous ( $t_L$ )		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
Average ramp-down rate ( $T_P$ to $T_{smax}$ )		6°C / Second Max.
Time (25°C to Peak Temperature)		8 Minutes Max.

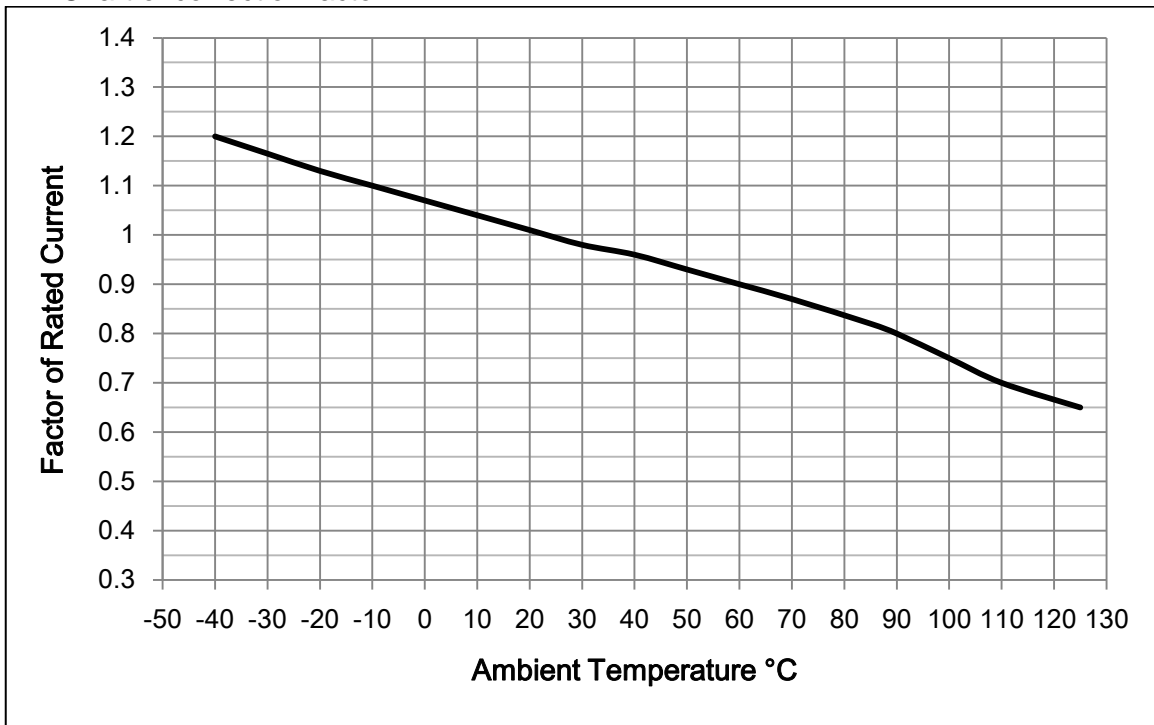
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## Temperature Rerating curve

- Normal Operating Temperature:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- Operating Temperature:  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  with proper correction factor applied.

Chart of correction factor



## Package and Minimum Order QTY

1000pcs fuses in tape (width 24mm) and reel (dia. 13inch).