

# 500VDC, SMD Fuse

## A114508 Series



### Description

- 4.5x4.5x11mm physical size
- Ceramic tube, silver plated cap construction
- 500VDC High voltage rating



### Electrical Characteristics

Ampere Rating	% of Rated Current	Opening Time
1A-5A	125%	1 hour, Minimum
1A-5A	200%	120 sec., Maximum
1A-5A	1000%	1 sec. , Maximum

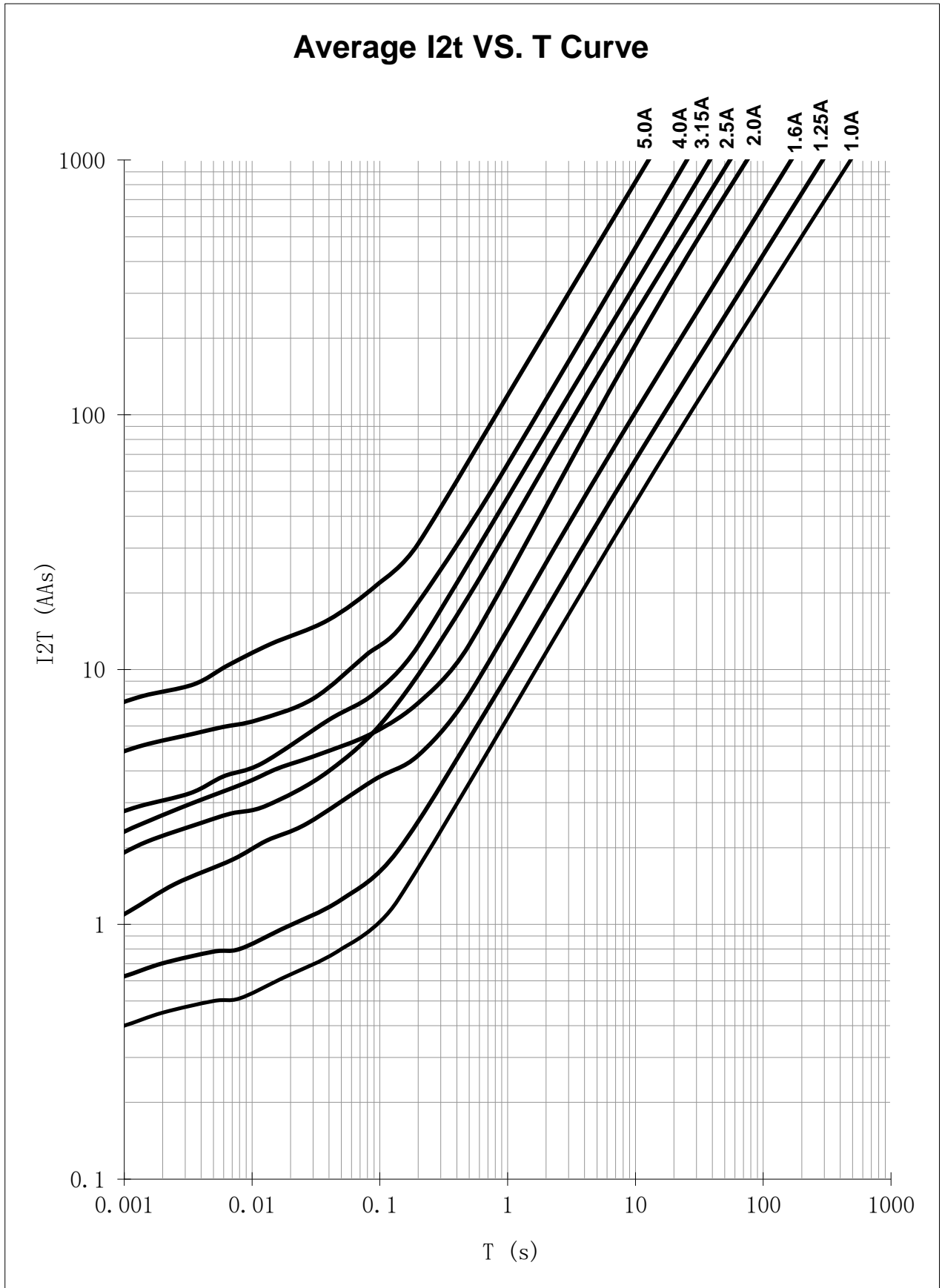
### Specifications

Part No.	Rated Voltage	Rated Current	Breaking Capacity (A) <sup>1</sup>	Typical Cold. Resistance (mOhms) <sup>2</sup>	Typical Voltage Drop (mV)	Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec) <sup>3</sup>	Alpha Mark
A114508.1	500Vdc 350Vdc 350Vac	1A	100A@500Vdc 1500A@350Vdc 100A@350Vac	180	220	0.50	1
A114508.1.25		1.25A		140	210	0.95	1.25
A114508.1.6		1.6A		90	190	2.3	1.6
A114508.2		2A		70	185	4.1	2
A114508.2.5		2.5A		40	120	2.6	2.5
A114508.3.15		3.15A		31.5	140	3.3	3.15
A114508.4	450Vdc 125Vdc 350Vac	4A	100A@450Vdc 1500A@125Vdc 100A@350Vac	24.5	140	5.5	4
A114508.5		5A		17.5	130	11.5	5

1. AC Interrupting Rating (measured at designated voltage, 100% power factor); DC Interrupting Rating (measured at designated voltage, time constant of less than 50 microseconds, battery source)
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C
3. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current, DC battery bank.



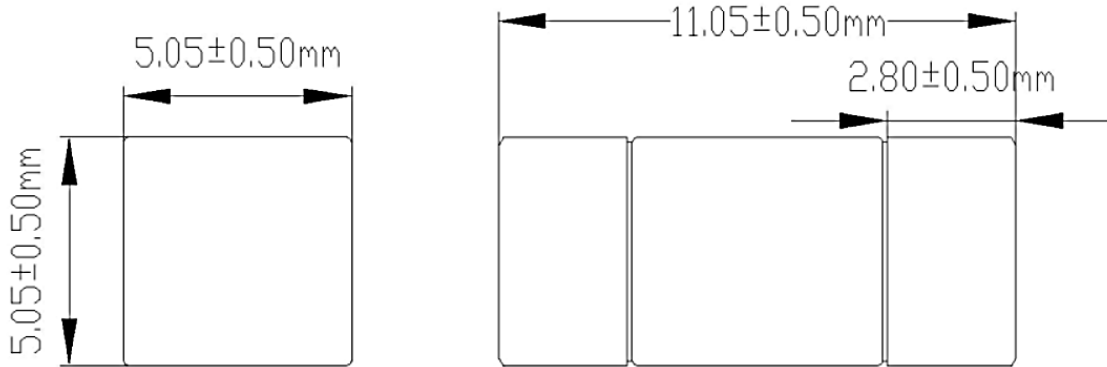
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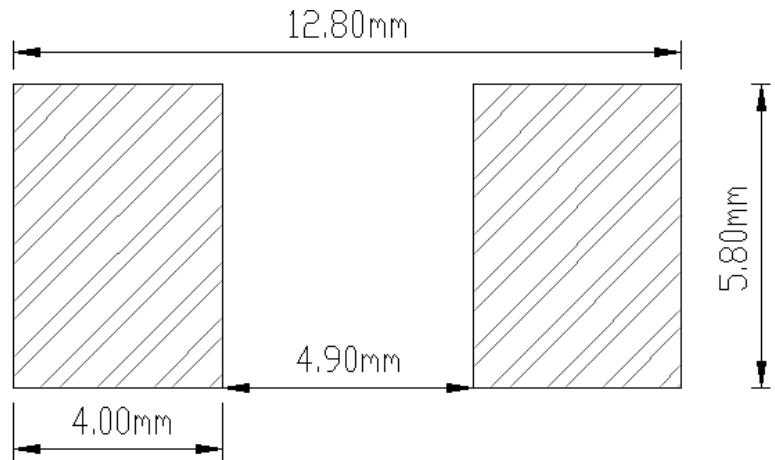
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## Dimension



## Recommended Pad Layout



Unit: mm

Recommend Stencil thickness is 0.15mm;

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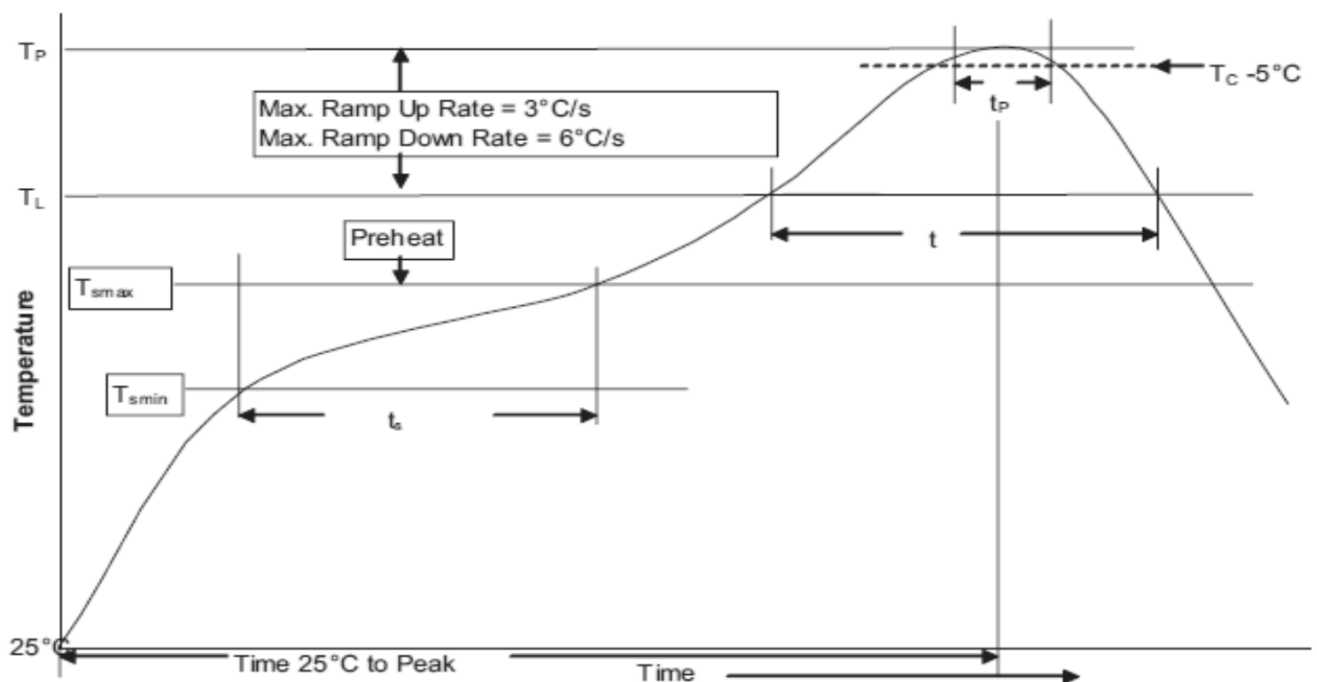
## Soldering Characteristics

### 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.

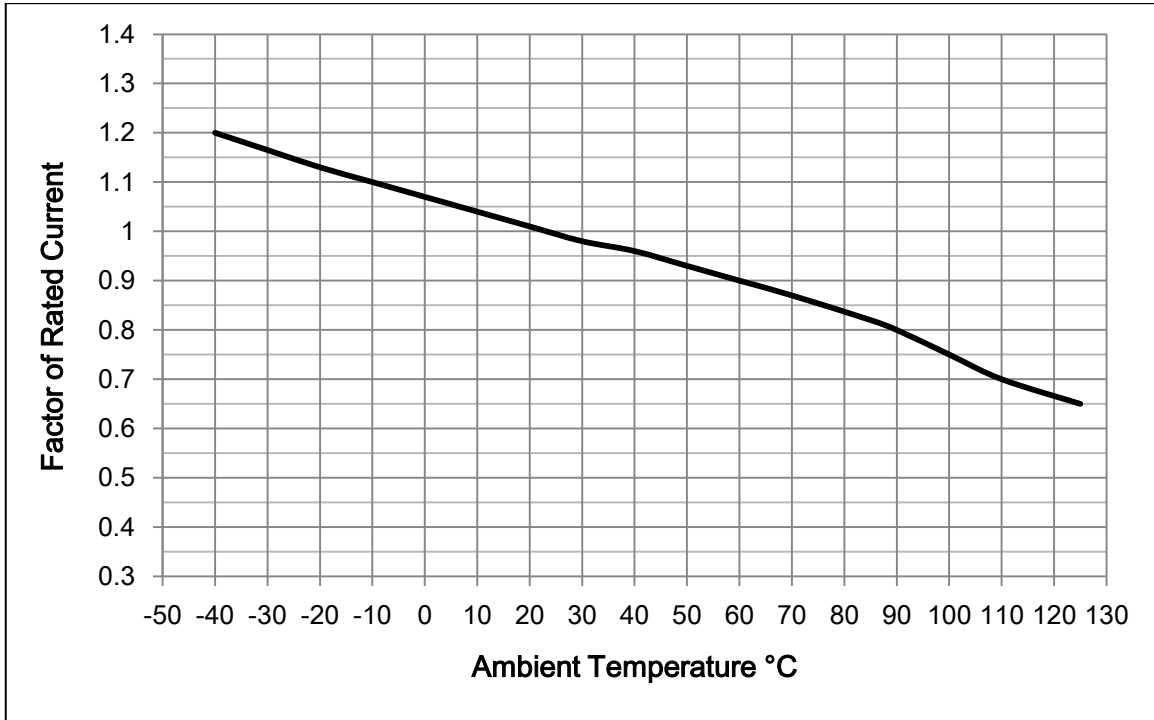
## Temperature derating curve

- Normal Operating Temperature: 25°C ± 2°C

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- Operating Temperature: -40°C to 125°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).