

# 1040 Time Delay Fuse

## 1040 110 Series



### Description

- Time Delay fuse
- 4X4X12mm physical size
- Ceramic tube, silver plated brass cap construction
- Designed to IEC60127-4, Universal Modular Fuse-links(UMF)
- 350VAC/DC voltage rating

### Electrical Characteristics

Rating	% rated current	Opening Time
2A, 3.15A	125%	1hours, Minimum
2A, 3.15A	200%	120sec., Maximum
2A, 3.15A	1000%	10 mS, Minimum

### Temperature Rise

Ampere rating	Temp. Rise(K)
2A, 3.15A	95 Max

### Specifications

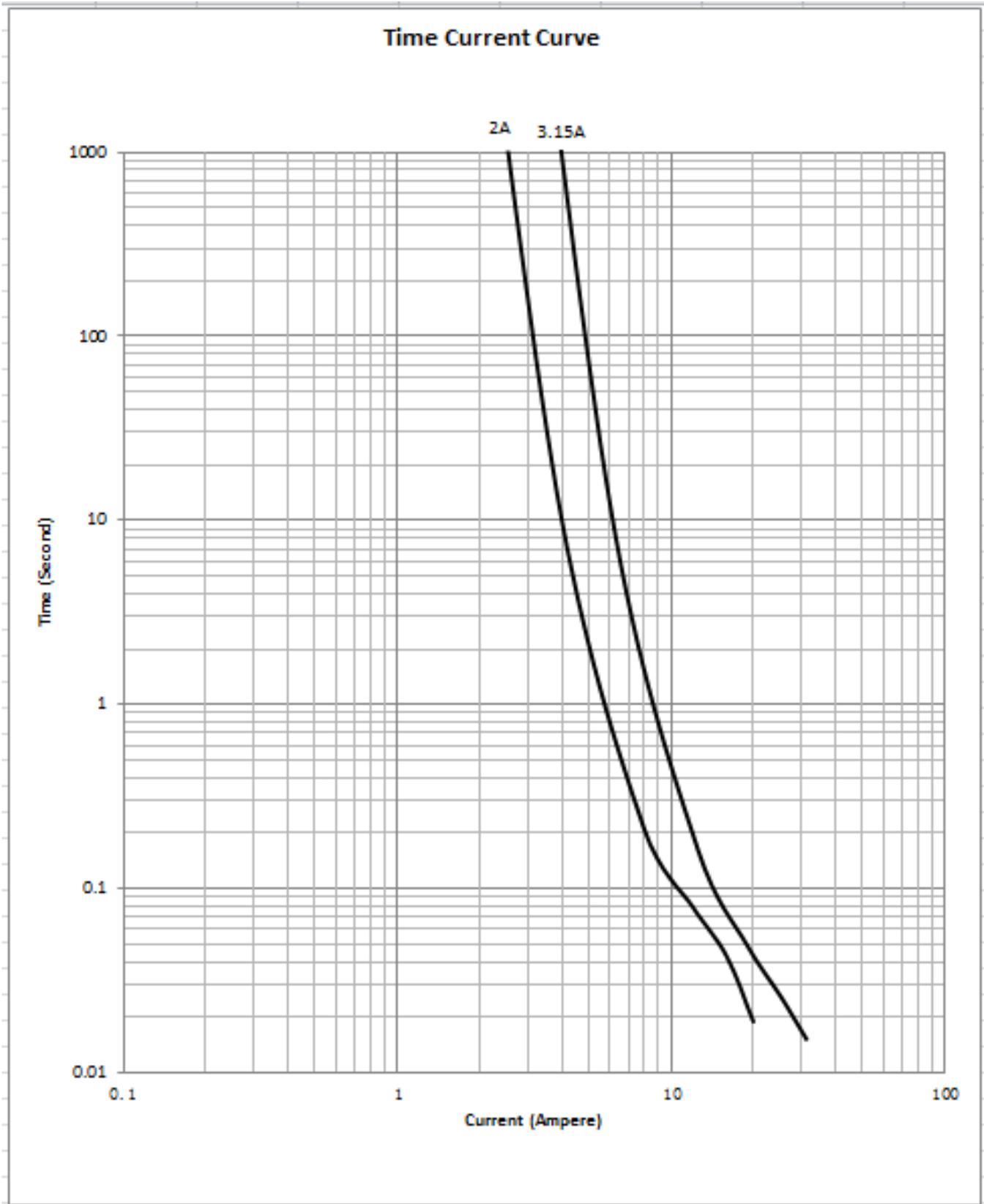
Catalog Symbol	Rated Voltage		Rated Current	Breaking Capacity (A) <sup>1</sup>		Nominal Cold DCR*(mΩ) <sup>2</sup>	Voltage Drop(mV)	Typical Melt I <sup>2</sup> t <sup>3</sup>
	AC	DC		AC	DC			
1040 110.2	250V	250V	2A	150A	100A	Typ	Typ	A <sup>2</sup> sec
1040 110.3.15	350V	350V	3.15A			34.8	85	7
						26.5	120	15

1 AC Interrupting Rating (Measured at designated voltage, 100% power factor random closing)

2 DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)

3 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)

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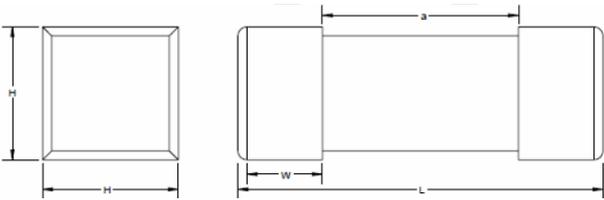


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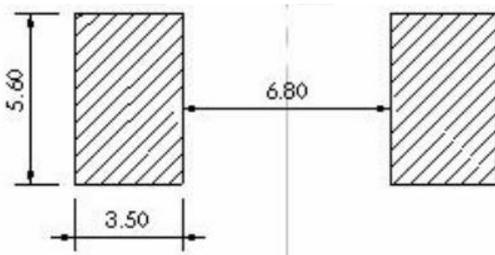


### Dimension



Unit	L	W	H	a
mm	12 Max	2.6±0.3	4.4±0.3	>3

### Recommended Pad Layout



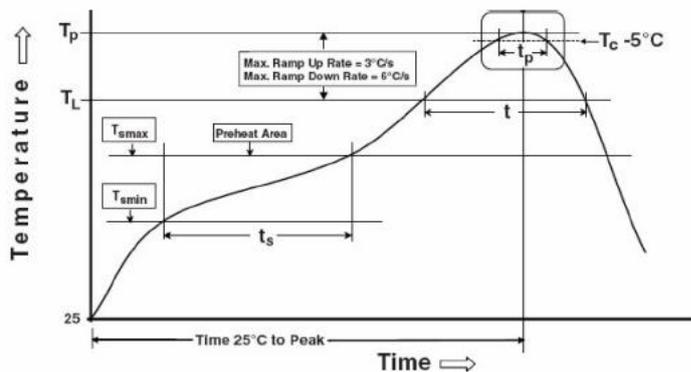
### Soldering Characteristics

#### Reflow Soldering

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

#### Manual Soldering (not recommended)

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



Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
<b>Preheat &amp; Soak</b>		
Temperature min ( $T_{smin}$ )	100 °C	150 °C
Temperature max ( $T_{smax}$ )	150 °C	200 °C
Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60-120 seconds	60-120 seconds
Average ramp-up rate ( $T_{smax}$ to $T_p$ )	3 °C/second max.	3 °C/second max.
Liquidous temperature ( $T_L$ )	183 °C	217 °C
Time at liquidous ( $t_l$ )	60-150 seconds	60-150 seconds
Peak package body temperature ( $T_p$ )*	See classification temp in Table 4.1	See classification temp in Table 4.2
Time ( $t_p$ )** within 5 °C of the specified classification temperature ( $T_c$ )	20** seconds	30** seconds
Average ramp-down rate ( $T_p$ to $T_{smax}$ )	6 °C/second max.	6 °C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

\* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

\*\* Tolerance for time at peak profile temperature ( $t_p$ ) is defined as a supplier minimum and a user maximum.

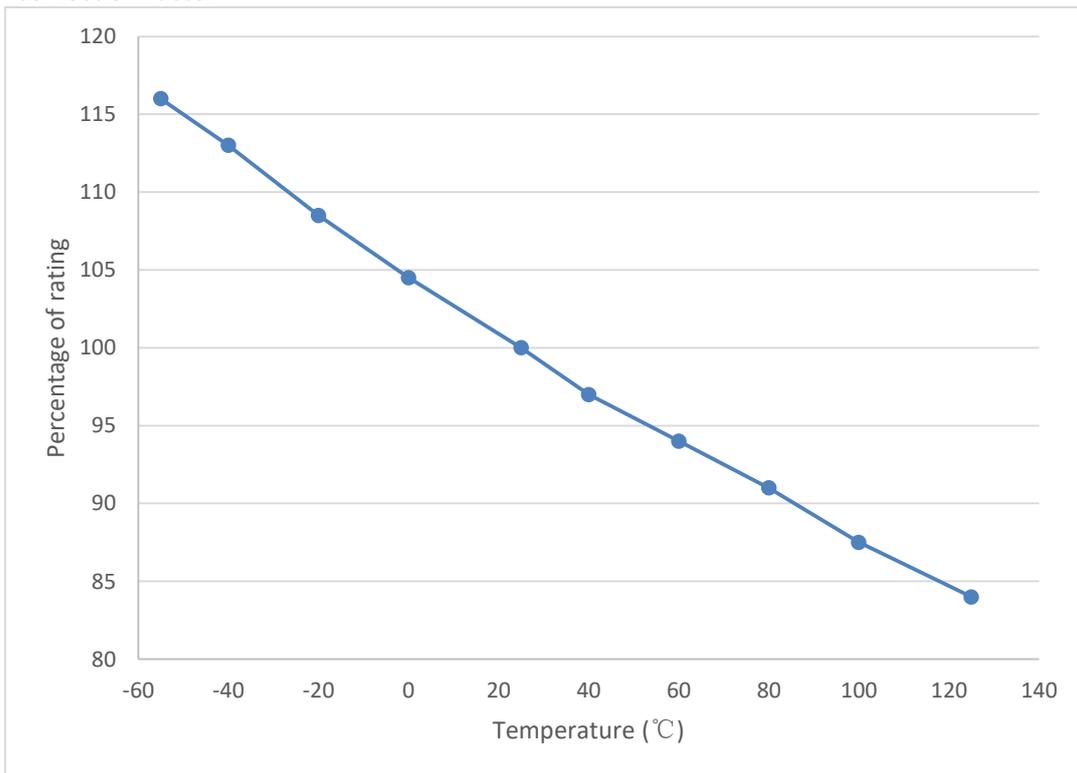
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### Temperature derating curve

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



### Package

1000 pieces in a reel and 6 reels in 1 carton