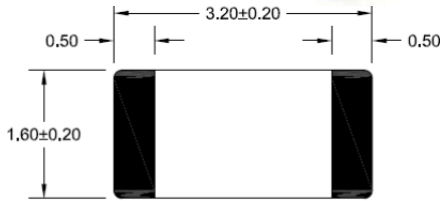


# Type 12H

## 1206 Fast Acting Line Voltage SMD Fuses



### Description

12H Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

### Features

- AEC-Q200 Automotive Grade Certified
- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- Ceramic and glass construction
- One time positive disconnect
- Lead Free and Halogen free material

### Applications

- Power supplies
- Consumer Electronicsii
- Battery Chargers
- Industrial Controllers

### Electrical Characteristics for Series

Rated Current	1.0In	2.5In	3.5In
250mA~5A	4 Hour, Min.	5sec. Max.	
6A~20A	4 Hour, Min.		5sec. Max.

### Electrical Characteristic Specifications by Item

Part No	Rated Voltage		Rated Current (A)	Breaking Capacity (A) 1	Typical Cold Resistance (mohms) 2	Typical Voltage Drop (mV)	Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec) 3	Alpha Mark	
	DC	AC							
12H0250	125V	125V	0.25	50A	3608	1407	0.00012	0.25	
12H0375			0.375		1882	718	0.0003	E	
12H0500			0.500		1028	650	0.0005	0.5	
12H0750			0.750		850	1000	0.009	0.75	
12H1100			1		240	300	0.0075	H	
12H1150			1.5		125	250	0.013	K	
12H1200			2		80	200	0.04	N	
12H1250			2.5		38	140	0.045	O	
12H1300			3		32	130	0.065	P	
12H1350			3.5		25	120	0.08	R	
12H1400			72V		4	20	110	0.11	S
12H1500			5		13	100	0.185	T	
12H1600			72V		6	15.5	140	8	F
12H1700			63V		7	11.5	130	10	7
12H1800	48V 32V	/	8	150A	7.6	123	12	V	
12H2100			10		5.5	110	18	U	
12H2120			12		5	85	11.5	12	
12H2150			15		3.4	78	16.5	15	
12H2200			20		2.2	80	40	Q	

\* 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)

\* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C

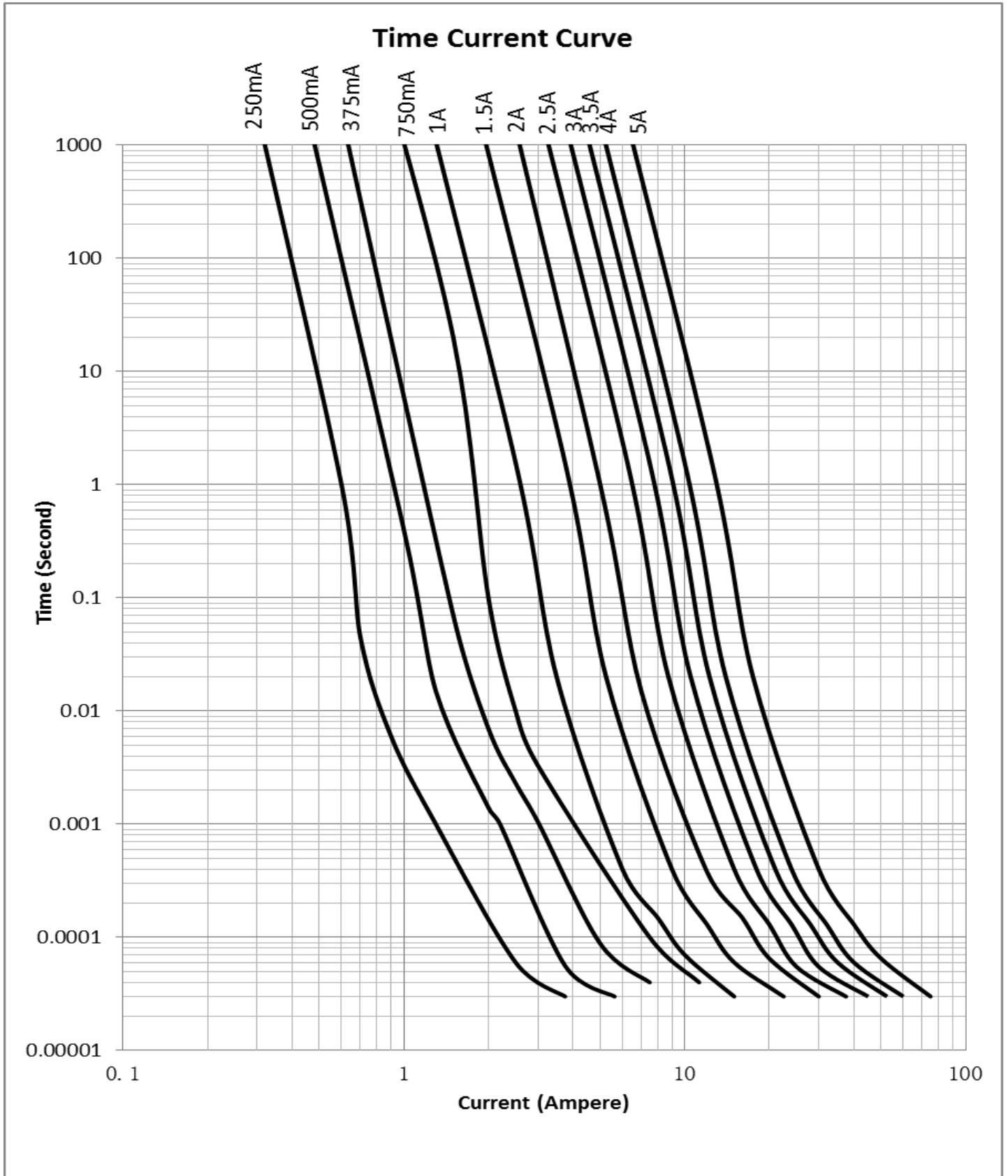
\* Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current

Type 12H

1206 Fast Acting Line Voltage SMD Fuses



### Average Time Current Curves



## Type 12H

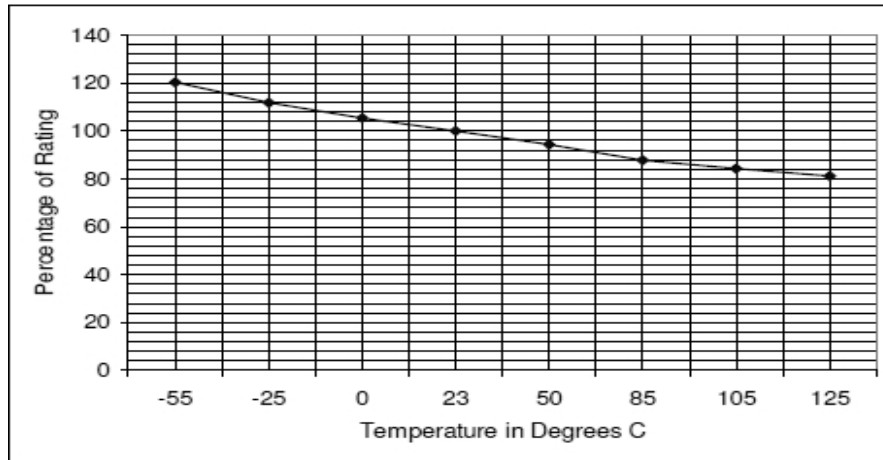
1206 Fast Acting Line Voltage SMD Fuses



### Temperature Re-rating Curve

\* Normal ambient temperature:  $23 \pm 3^\circ\text{C}$

\* Operating temperature:  $-55 \sim +125^\circ\text{C}$ , with proper



### Soldering Method

#### Wave solder

Reservoir temperature:  $260^\circ\text{C}$

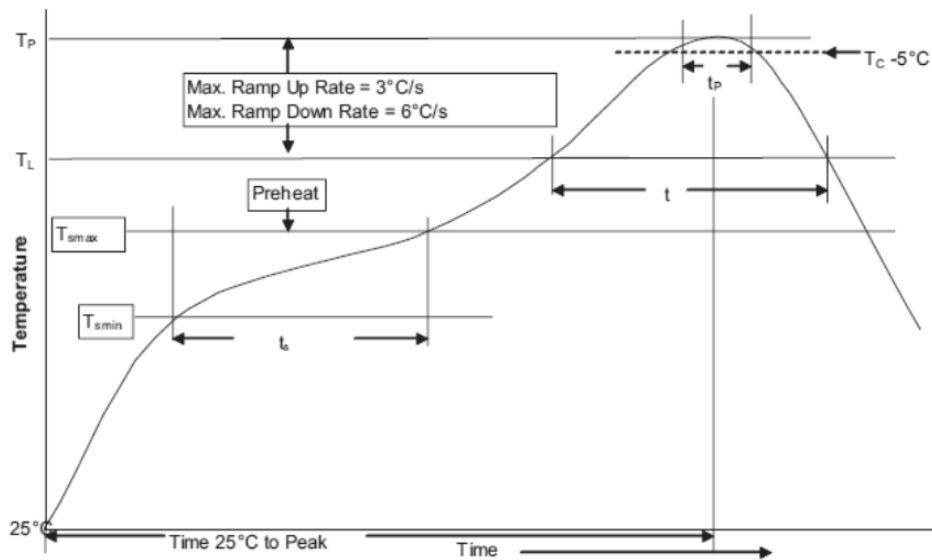
Time in reservoir: 10 seconds maximum

#### Infrared reflow

Temperature:  $260^\circ\text{C}$

Time: 30 seconds maximum

### Solder reflow profile



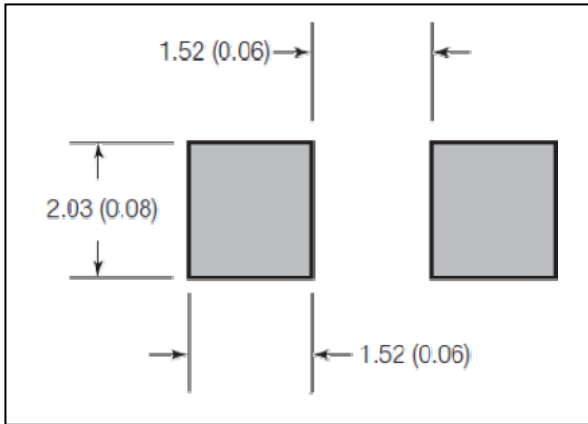
Profile Feature	Lead(Pb)free solder	
Preheat and soak	Temperature min. ( $T_{smin}$ )	$150^\circ\text{C}$
	Temperature max. ( $T_{smax}$ )	$200^\circ\text{C}$
	Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60 - 120 Seconds
Average ramp up rate $T_{smax}$ to $T_p$	$3^\circ\text{C} / \text{Second Max.}$	
Liquidous temperature ( $T_L$ )	$217^\circ\text{C}$	
Time at liquidous ( $t_l$ )	60 - 150 Seconds	
Peak package body temperature ( $T_p$ )	$260^\circ\text{C}$	
Time ( $T_p$ ) within $5^\circ\text{C}$ of the specified classification temperature ( $T_c$ )	30 Seconds	
Average ramp-down rate ( $T_p$ to $T_{smax}$ )	$6^\circ\text{C} / \text{Second Max.}$	
Time (25°C to Peak Temperature)	8 Minutes Max.	

# Type 12H

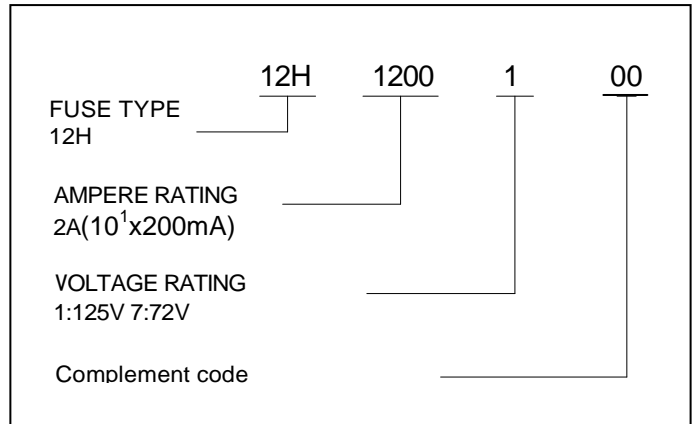
1206 Fast Acting Line Voltage SMD Fuses



## Mechanical Dimensions Unit:mm(inch)



## Ordering Information



## Packaging

Packaging Option	Packaging Specification	Quantity
12H	tape-and-reel	3000