



1206 Fast Acting Line
Voltage SMD Fuses
高分断

DOC.No. :
ISS: F12FH Series

INDIVIDUAL SPECIFICATION SHEET

Product Name: 1206 Fast Acting Line Voltage SMD Fuses 高分断

Part Number: :F12FH Series

Revision: A



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Rev.	Effective Date	Changed Contents
A	2020-9-18	New Release

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APPROVED BY

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Description

F12FH 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.



Electrical Characteristics			
Rated Current	1.0In	2.5In	3.5In
250mA ~ 5A	4 hour min	5 sec Max	
6A ~ 20A	4 hour min		5 sec Max

Features

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

Specifications

Part No.	Rated		Rated Current	Breaking Capacity (A) ¹	Typical Cold Resistance (mOhms) ²	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) ³	Alpha Marking
	Voltage							
	AC	DC						
F12FH0.25	125V	125V	250mA	50A	3608	1407	0.00012	0.25
F12FH0.375			375mA	50A	1882	718	0.0003	E
F12FH0.5			500mA	50A	1028	650	0.0005	0.5
F12FH0.75			750mA	50A	850	1000	0.009	0.75
F12FH1			1A	50A	240	300	0.0075	H
F12FH1.25			1.25	50A	175	290	0.009	
F12FH1.5			1.5A	50A	125	250	0.013	1.5
F12FH2			2A	50A	80	200	0.04	N
F12FH2.5			2.5A	50A	38	140	0.045	2.5
F12FH3			3A	50A	32	130	0.065	P
F12FH3.5	72V	72V	3.5A	50A	25	120	0.08	3.5
F12FH4			4A	50A	20	110	0.11	S
F12FH5			5A	50A	13	100	0.185	T
F12FH6			6A	50A	15.5	140	8	F
F12FH7			7A	50A	11.5	130	10	7
F12FH8	48V 32V	48V 32V	8A	150A	7.6	123	12	V
F12FH10			10A	150A	5.5	110	18	U
F12FH12			12A	150A	5	85	11.5	12
F12FH15			15A	150A	3.4	78	16.5	15
F12FH20			20A	150A	2.2	80	40	Q

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 I²t are measured at 10I_n Current

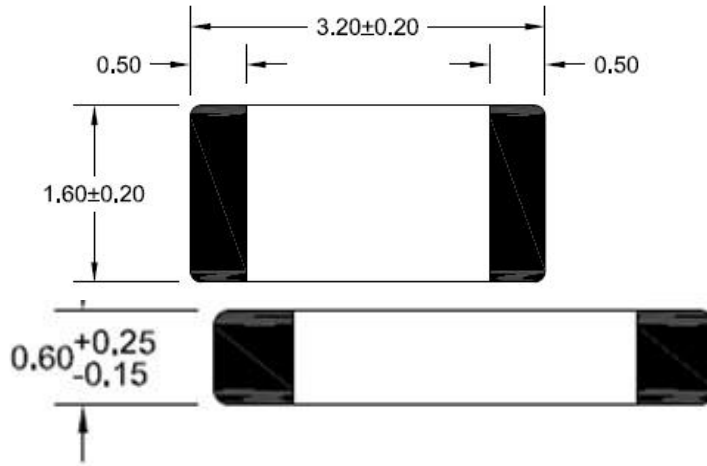
Specifications are subject to change without notice. Application testing is strongly recommended.

Dimension

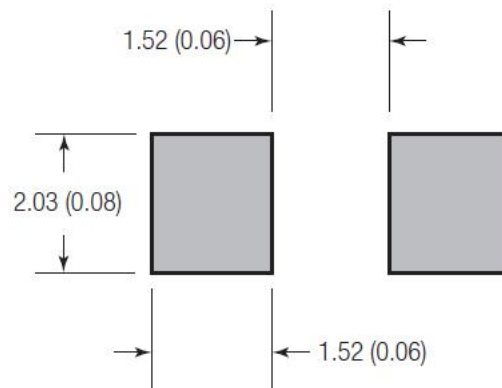
Drawing not to scale (Unit: mm) Top view

Top view

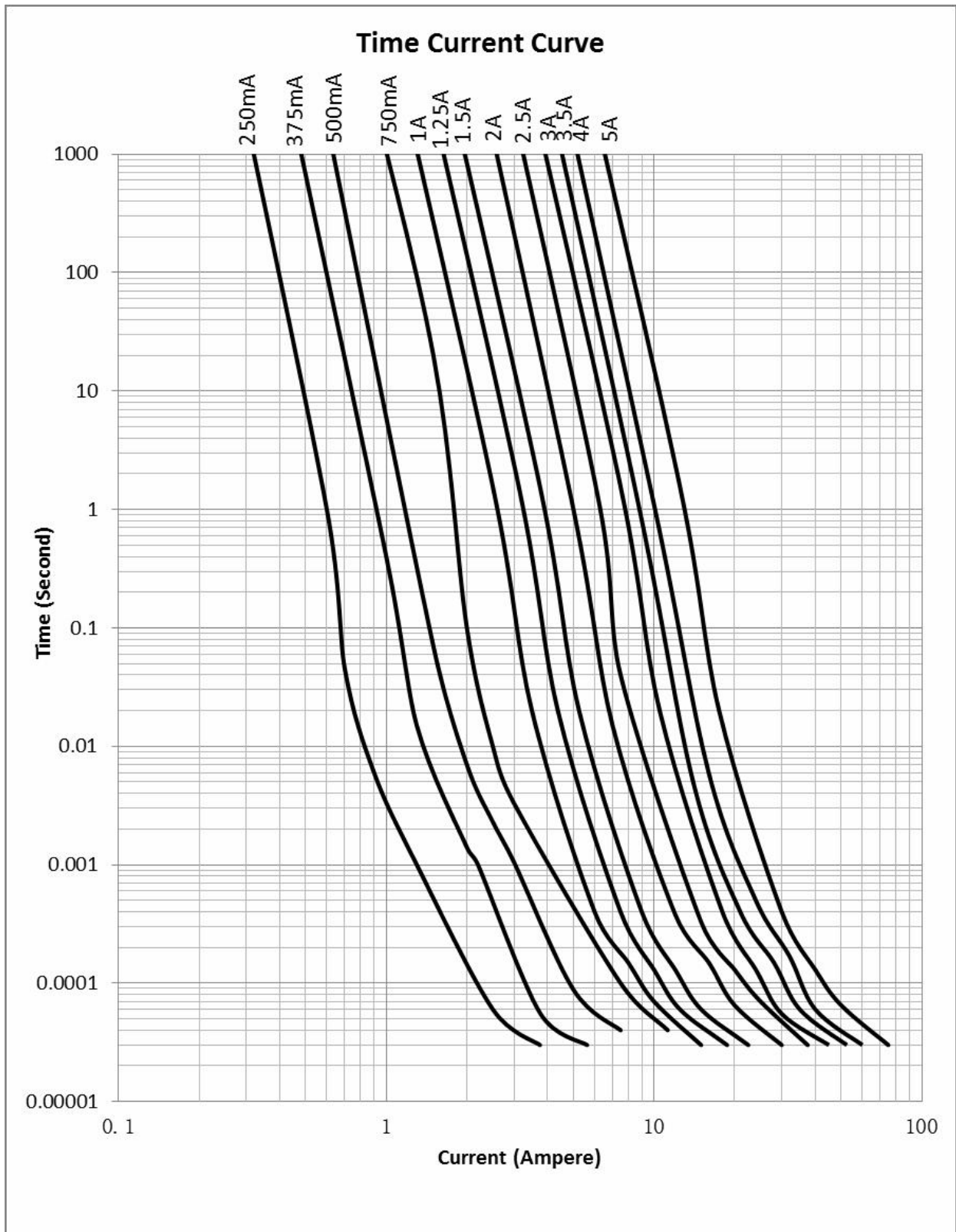
Side view



Recommended land pattern



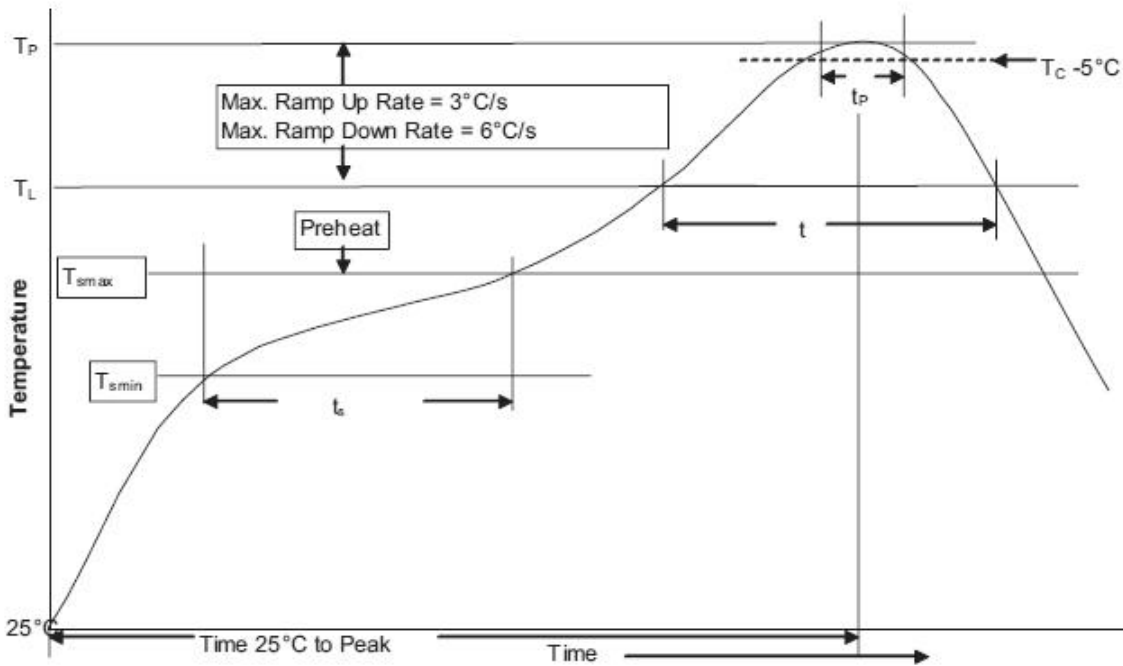
Unit: mm(inch)



Soldering method

- Wave solder
 - Reservoir temperature: 260°C
 - Time in reservoir: 10 seconds maximum
- Infrared reflow
 - Temperature: 260°C
 - Time: 30 seconds maximum

Solder reflow profile

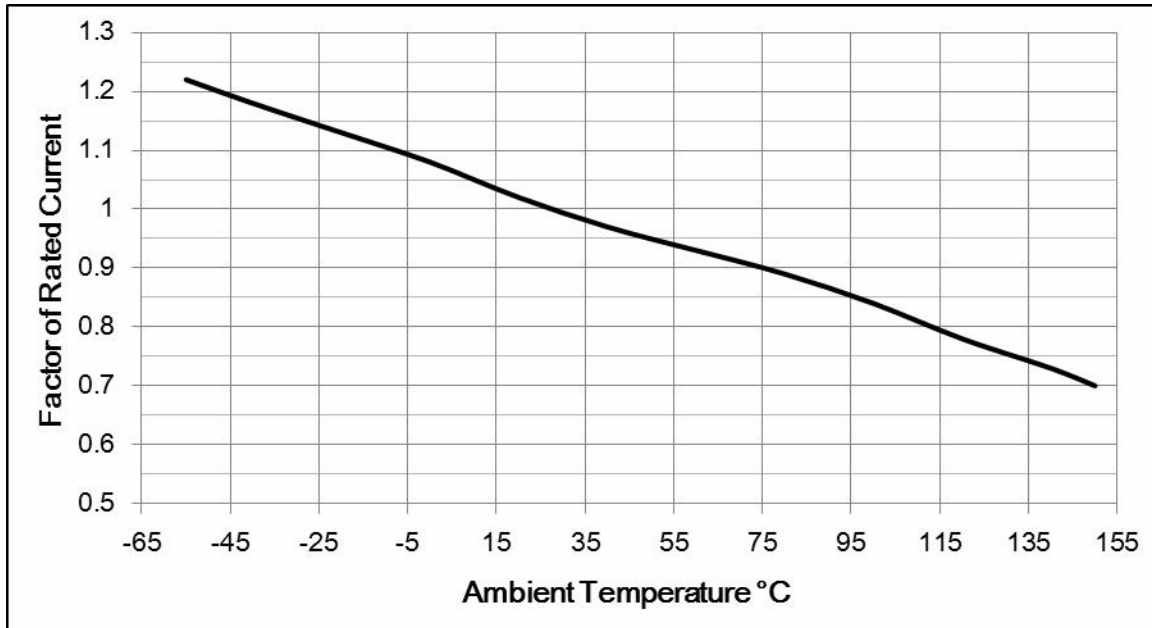


Profile Feature	Lead(Pb) free solder
Preheat and soak	
• Temperature min. (T_{smin})	150°C
• Temperature max. (T_{smax})	200°C
• Time (T_{smin} to T_{smax}) (t_s)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_P	3°C / Second Max.
Liquidous temperature (T_L)	217°C
Time at liquidous (t_L)	60 - 150 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 ambient temperature: 23+/-3°C

Operating temperature: -55 ~ 150°C, with proper correction factor applied



Package

3000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481.

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