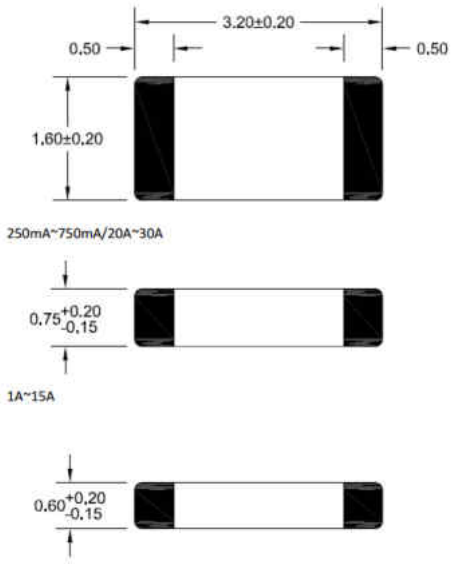
Type 12F

1206 Fast Acting SMD Fuses

E485357



Description

12F 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

Rating Current	100% of Ampere Rating	200% of Ampere Rating	350% of Ampere Rating
250mA~5A	4 Hour, Min	5Sec.Max	-
6A~30A	4 Hour, Min	-	5Sec.,Max

Electrical Characteristic Specifications by Item

Part No	Rated Voltage DC	Rated Current (A)	Breaking Capacity (A) 1	Typical Cold. Resistance (mOhms) 2	Typical Voltage Drop (mV)	Typical Pre-Arcing I2t (A2Sec) 3	Alpha Mark
12F0250	72V 63V 32V 24V	0.250	50A@72V 50A@63V 50A@32V 300A@24V	3608	1407	0.0004	.25
12F0375		0.375		1882	718	0.0008	E
12F0500		0.500		1028	650	0.0022	0.5
12F0750		0.750		601	616	0.0057	.75
12F1100		1		490	510	0.10	H
12F1150		1.5		240	367	0.15	K
12F1200		2		144	316	0.41	N
12F1250		2.5		83	240	0.65	O
12F1300		3		53	187	1.39	P
12F1400		4		35	173	1.73	S
12F1500	32V 24V	5	50A@32V 300A@24V	22	141	2.89	T
12F1700		7		12	140	5.68	7
12F1800	24V	8	300A@24V	8.5	110	8	M
12F2100		10		7	100	9.5	U
12F2120		12		5	85	11.5	12
12F2150		15		3.5	78	16.5	15
12F2200		20		1.6	60	47.17	20
12F2250		25		1.4	57	32	25
12F2300		30		1	68	43	30

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

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

* Typical Pre-arching I^2t are measured at 10In Current

For 1A-5A, the color of glass coating is Green; for others, it's Blue.

Rev: A AUG 2016

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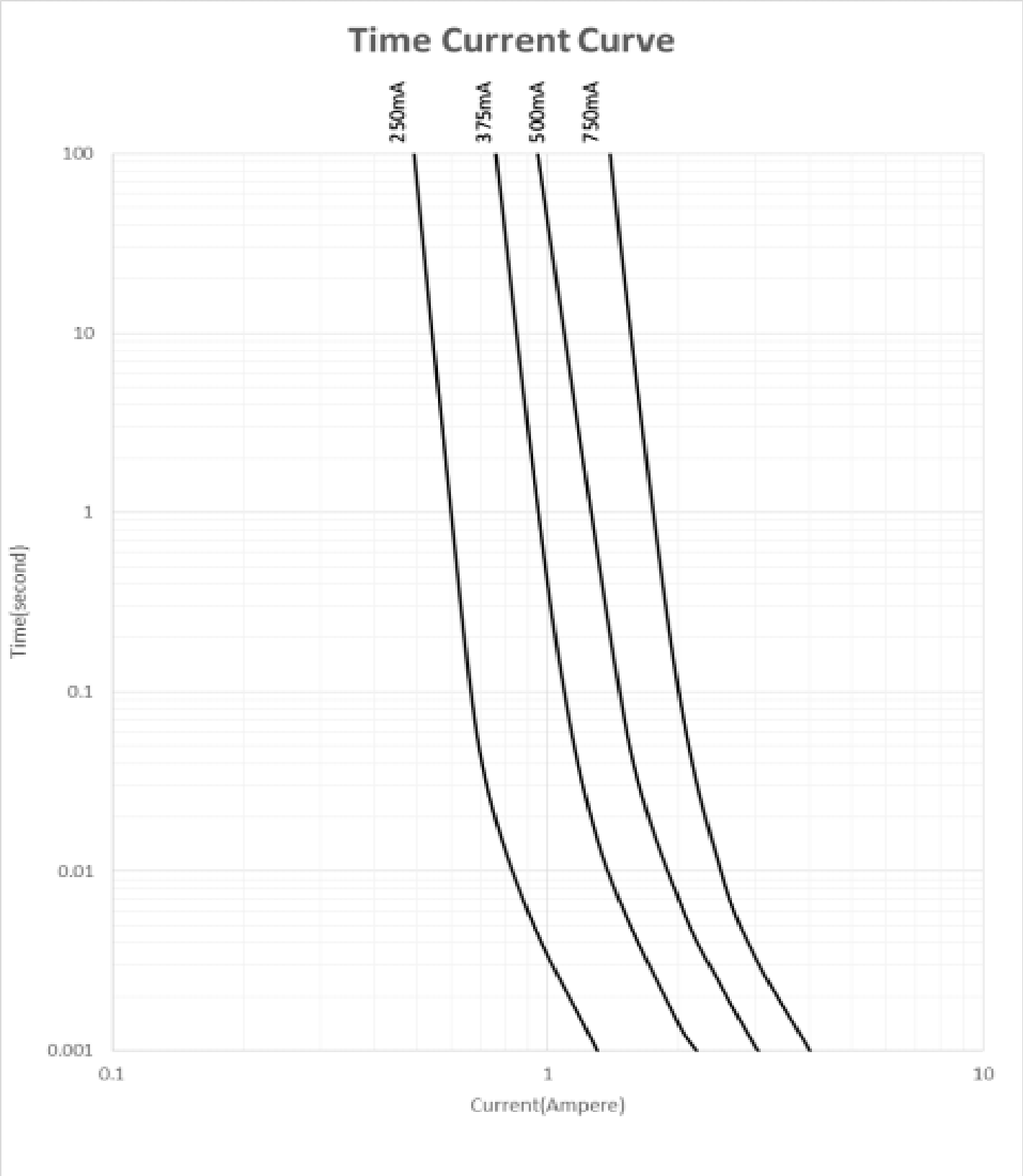
Average Time Current Curves



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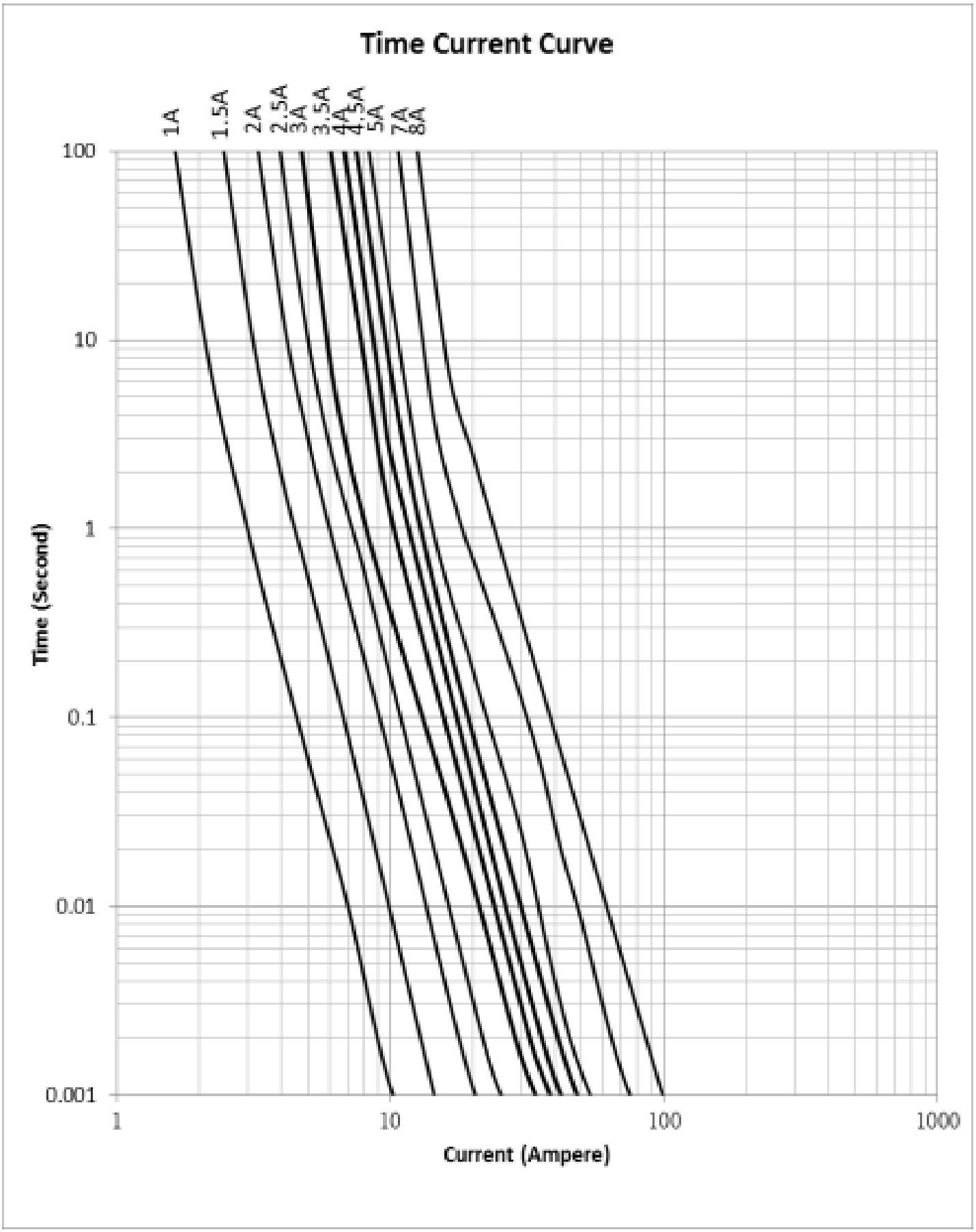

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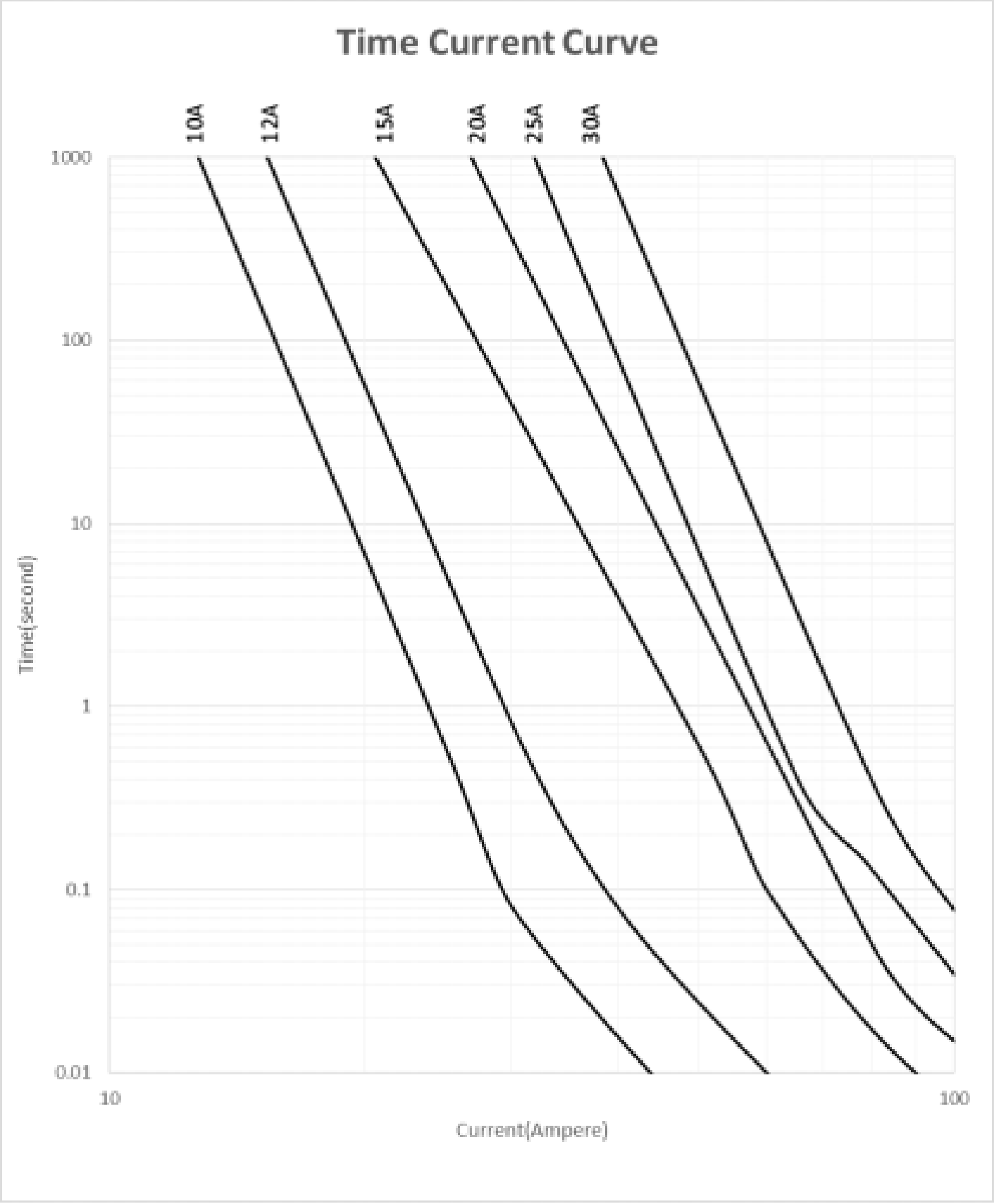

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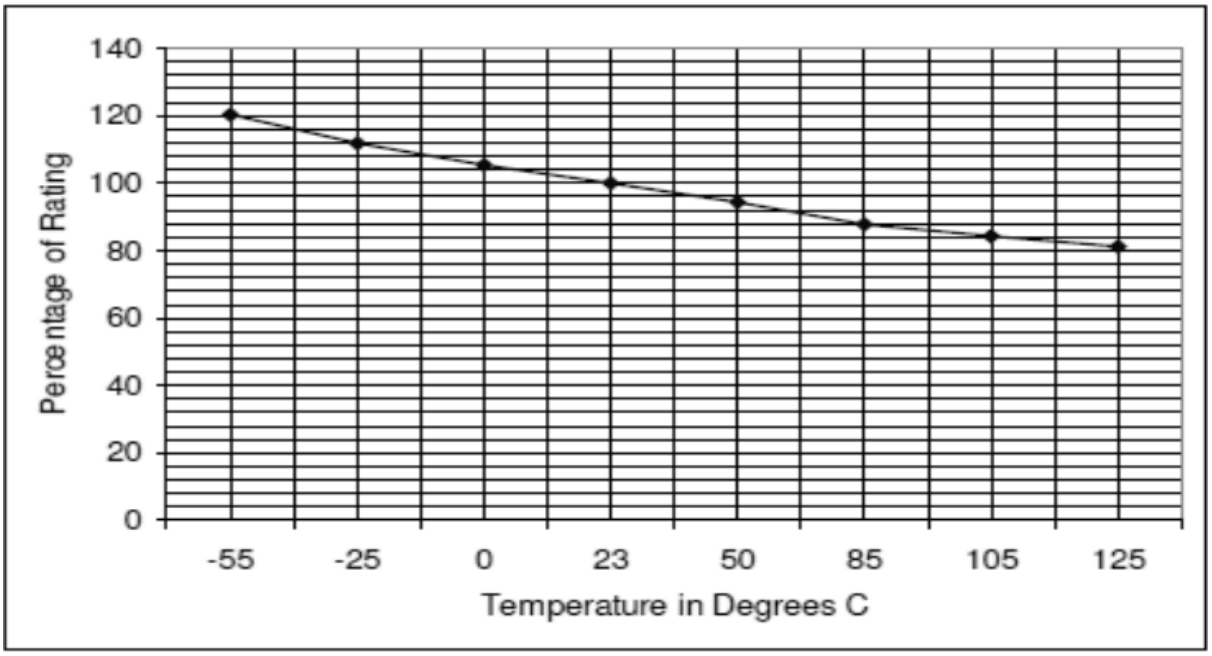
Temperature Re-rating Curve

* Normal ambient temperature: 23±3℃
* Operating temperature: -55 ~+125℃, with proper correction factor applied



Soldering Method

■Wave solder

Reservoir temperature:260℃

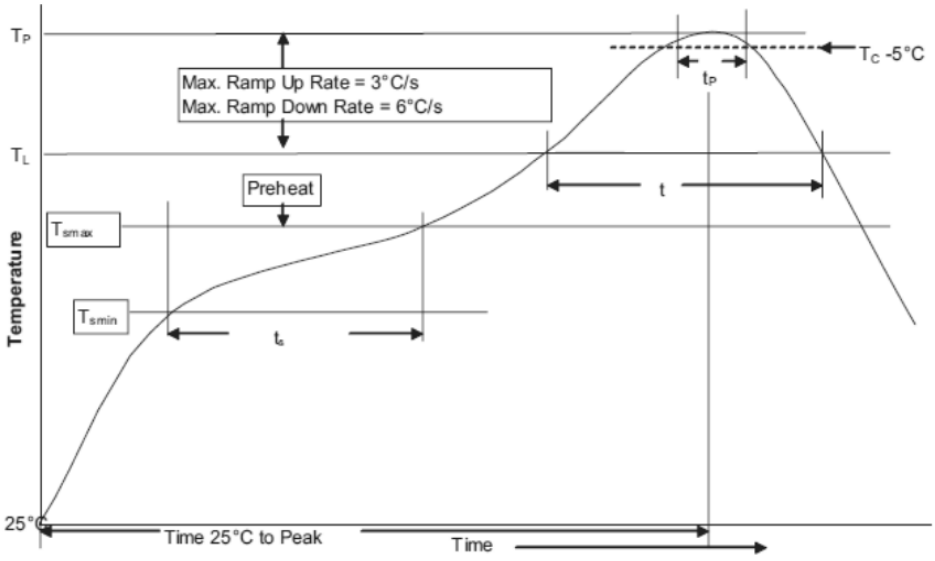
Time in reservoir:10 seconds maximum

■Infrared reflow

Temperature:260℃

Time: 30 seconds maximum

Solder Reflow Profile



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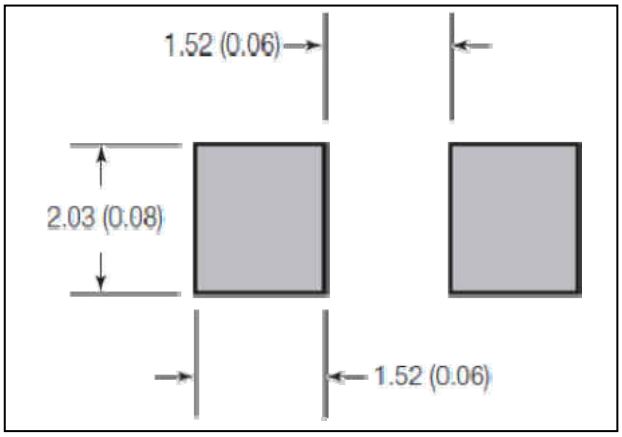
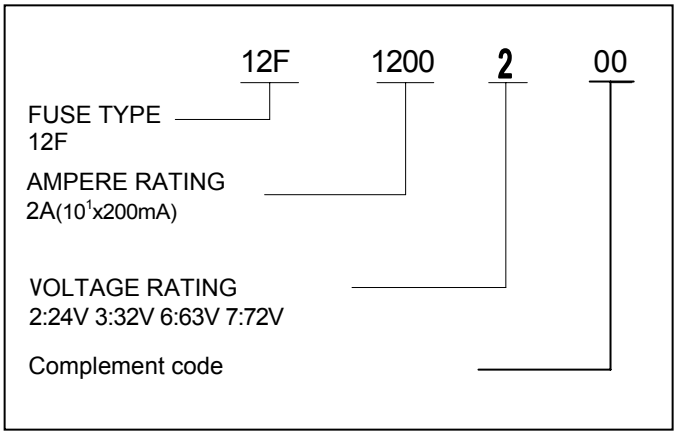
Profile Feature		Lead(Pb)free solder
Preheat and soak	Temperature min.(T_{smin})	150℃
	Temperature max.(T_{smax})	200℃
	Time(T_{smin} to T_{smax})(ts)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_p		3℃ / Second Max.
Liquidous temperature(T_L) Time at liquidous(t_L)		217℃ 60 – 150 Seconds
Peak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

Mechanical Dimensions(Unit:mm(inch))



Ordering Information



Packaging

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