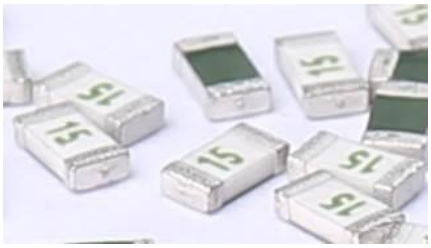
JKSEMI
SAFE·EXPERTISE·INNOVATION

1206 Fast Acting SMD Fuses

12 100 Series

E355868

Description



12 100 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~40A		-	5 sec max.

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

Specifications

Specification							
Part No.	Rated Voltage DC	Rated Current (A)	Breaking Capacity(A) [1]	Typical Cold. Resistance (mOhms) [2]	Typical Voltage Drop (mV)	Typical Pre-Arcing I^2t (A^2Sec) [3]	Alpha Marking
12 100.0.25	72V 63V 32V 24V	250mA	50A@72Vdc 50A@63Vdc 150A@32Vdc 300A@24Vdc	3608	1407	0.0004	.25
12 100.0.375		375mA		1882	718	0.0008	E
12 100.0.5		500mA		1028	650	0.0022	0.5
12 100.0.75		750mA		601	616	0.0057	.75
12 100.1		1A		490	510	0.10	H
12 100.1.5		1.5A		240	367	0.15	K
12 100.2		2A		132	316	0.41	N
12 100.2.5		2.5A		77	240	0.65	O
12 100.3		3A		48	187	1.39	P
12 100.3.5		3.5A		40	180	1.68	R
12 100.4		4A		35	173	1.73	S
12 100.4.5	32V 24V	4.5A	150A@32Vdc 300A@24Vdc	30	164	2.62	X
12 100.5		5A		25	141	2.89	T
12 100.6		6A		16.5	142	11	F
12 100.7		7A		12	140	12.5	7
12 100.8	24V 32V	8A	150A@32Vdc 300A@24Vdc	8.5	110	14	M
12 100.10		10A		6.8	100	20	U
12 100.12		12A		5	85	11.5	12
12 100.15		15A		3.9	78	16.5	15
12 100.20		20A		1.8	60	47.17	20
12 100.25		25A		1.5	57	32	25
12 100.30		30A		1.25	68	43	30
12 100.40	32V 24V	40A	200A@32Vdc 200A@24Vdc	0.85	95	240	XL

1. DC Interrupting Rating (Measured at rated 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℃
3. Typical Pre-arcing I^2t are measured at 10In Current

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

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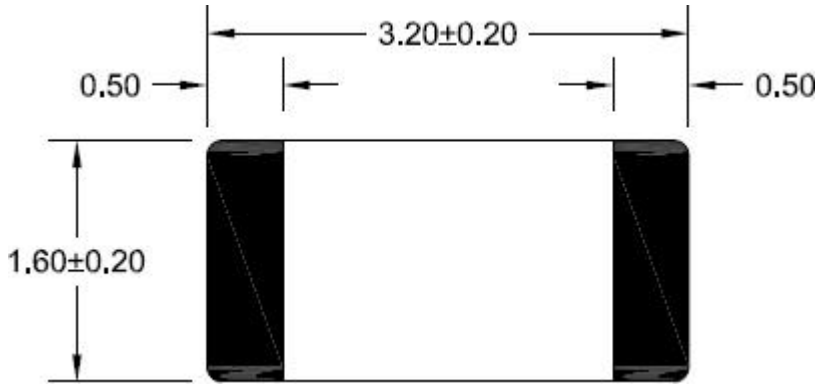
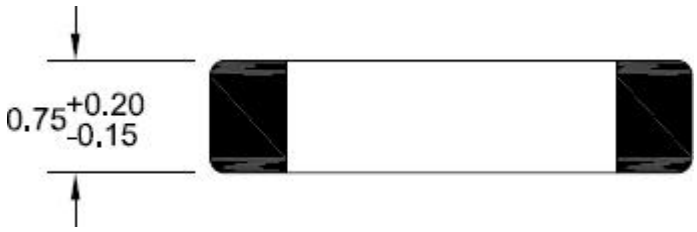
Dimension

Drawing not to scale (Unit: mm)

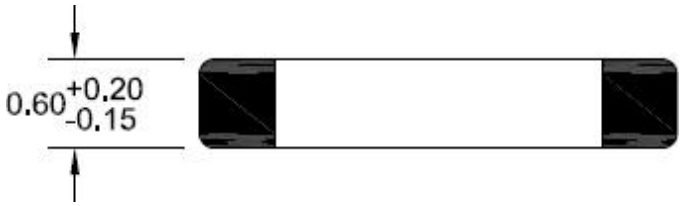
Top view



Side view: 250mA~750mA/20A~40A



1A~15A



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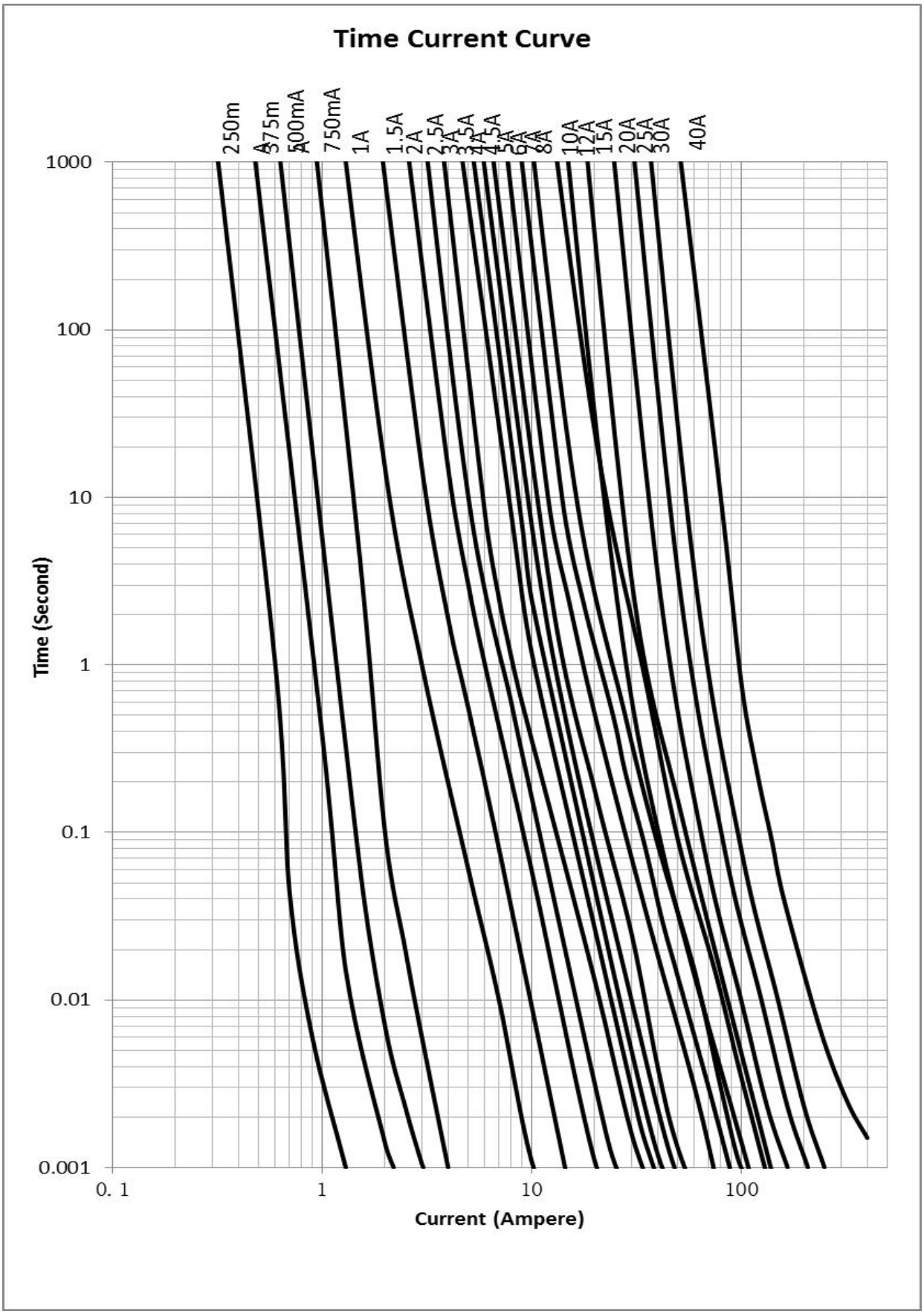

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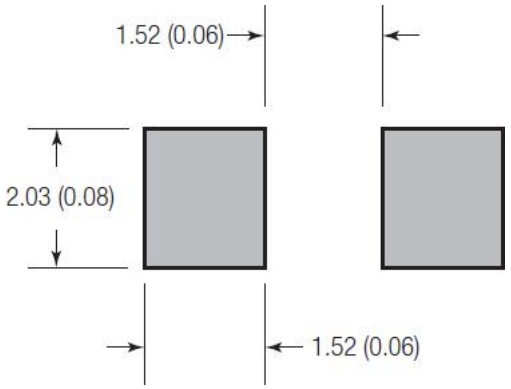
Recommended landpattern

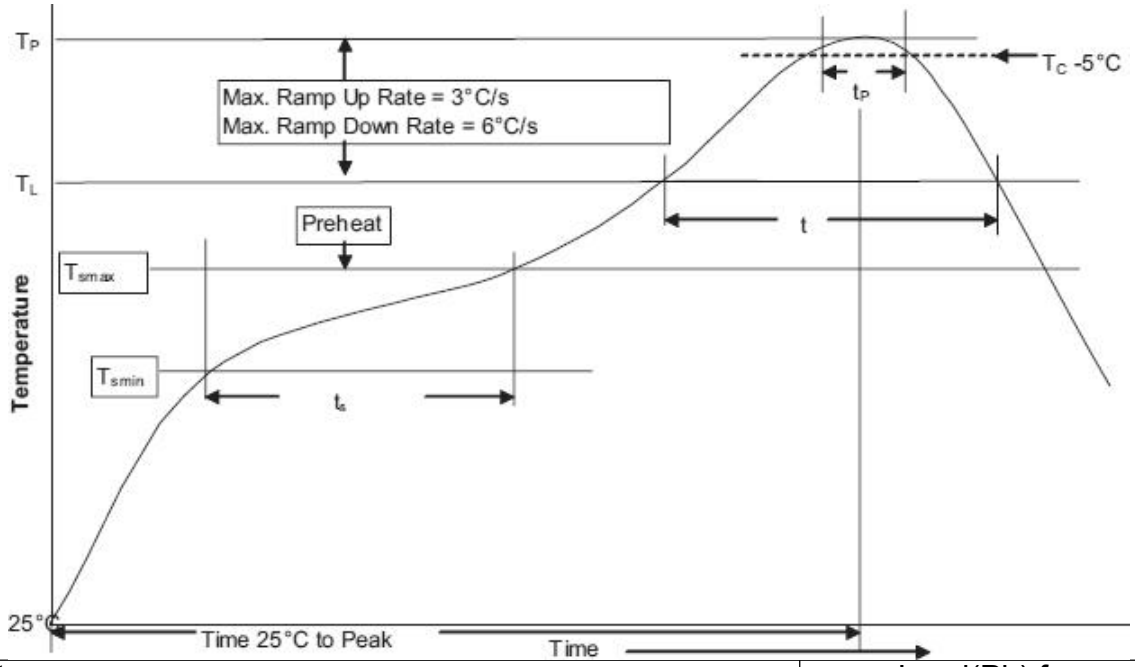


Unit: mm(inch)

Soldering method

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

Solder reflow profile



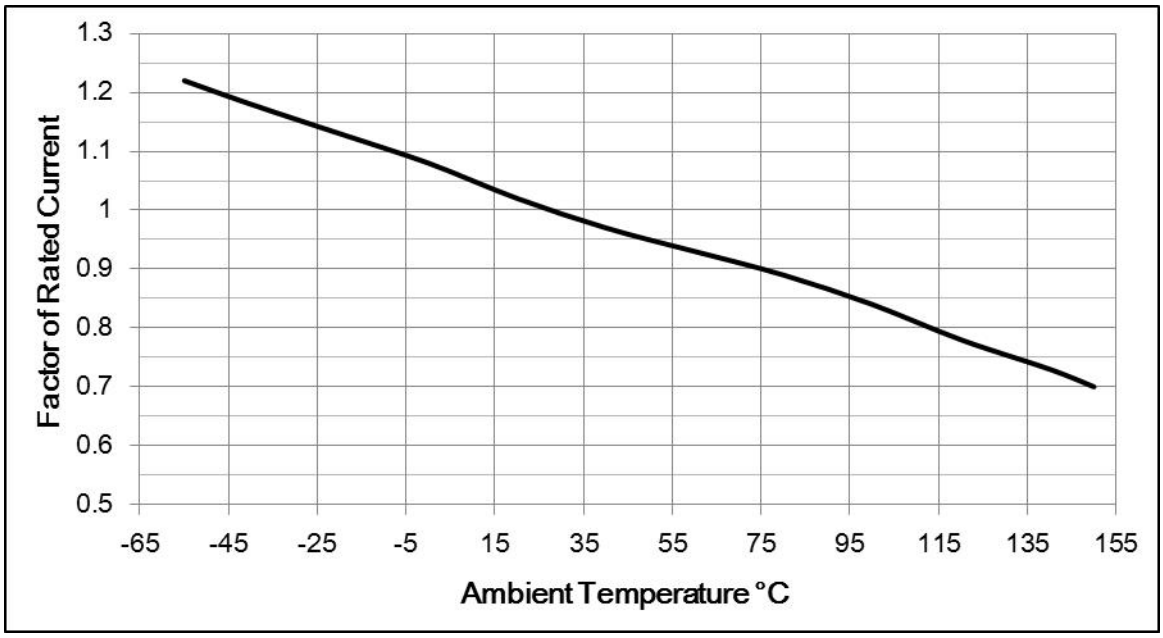
Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min.(T_{smin})	150℃
	• Temperature max. (T_{smax})	200℃
	• Time (T_{smin} to T_{smax}) (t_S)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_p		3℃ / Second Max.

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.

Temperature Derating Curve

Normal ambient temperature: 23+/-3℃

Operating temperature: -55 ~ 150℃, 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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