

Time-Lag SMD Fuses 1206

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**RoHS
Compliant**



Description

The SMD fuses stand out due to their ultra-small size and excellent electrical performance, reliability and quality. The solder-free design provides outstanding on-off and temperature cycling characteristics during operation and also makes our SMD fuses more heat and shock tolerant than typical sub-miniature fuses.

Applications

Industrial products such as cellphones, DVD players, battery packs, hard disk drives and digital cameras

Features

- Rapid interruption of excessive current
- Compatible with reflow and wave soldering
- Ceramic and glass construction
- Excellent environmental integrity
- Non-resettable fuse design
- Lead-free and Halogen-free
- Designed to UL 248-14

Specifications

Operating Temperature	: -55°C to +125°C
Storage Conditions	: +10°C to +60°C
Relative Humidity	: ≤ 75% yearly average without dew, maximum 30 days at 95%
Vibration Resistance	: 24 cycles at 15 min. each 10-60Hz at 0.75mm amplitude 60-2000Hz at 10g acceleration

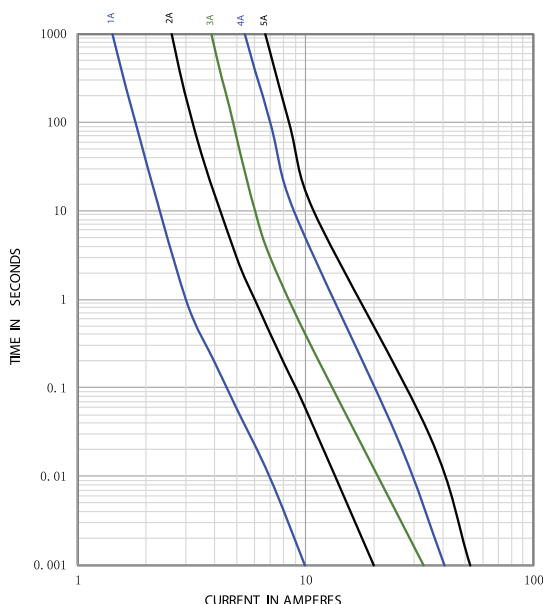
Electrical Characteristics

Part Number	Rated Current	Rated Voltage	Typical Voltage Drop (mV)	Breaking Capacity	Typical Cold Resistance (mΩ)	Typical Melting I ² t (A ² sec)
MP001606	1A	12V AC 63V DC	500	50A @ 12V AC 50A @ 63V AC	480	0.11
MP001607	2A		310		140	0.41
MP001608	3A		183		50	1.5
MP001609	4A		170		34	2.5
MP001610	5A	12V AC 32V DC	138	100A @ 12V AC 100A @ 32V DC	21.5	4

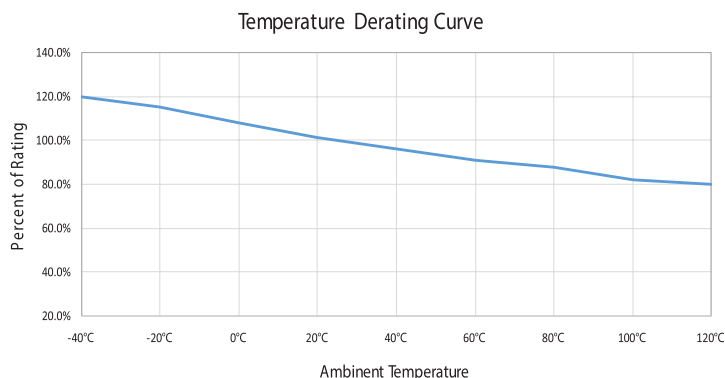
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Average Time Current (I-T) Curves

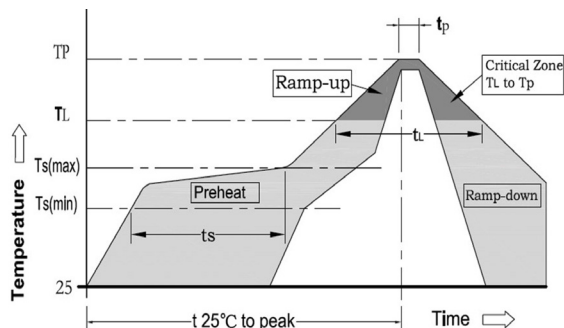


Temperature Derating Curve



$$\text{Calculation for ideal fuse selection} = \frac{\text{Operating Current (A)}}{\text{Rating (\%} \times 0.75\text{)}}$$

Soldering Parameters



Profile Feature		Pb-Free Assembly
Average Ramp-UP Rate(T_{smax} to T_p)		3°C/s Max.
Preheat	Temperature Min (T_s min)	150°C
	Temperature Max (T_s max)	200°C
	Time (T_{smin} to T_s max)	60sec to 120sec
Peak Temperature (T_p)		260°C
Time within 5°C of actual Peak Temperature(T_p)		5sec
Melting tin time (TL)		20sec to 40sec
Ramp-Down Rate		6°C/s Max.
Time 25°C to Peak Temperature(T_p)		8 minutes Max.

1. Infrared Reflow:

Temperature: 260°C
Time: 5sec Max.
Recommend reflow profile

2. Wave Soldering:

Reservoir Temperature: 260°C
Time in Reservoir: 10sec Max.

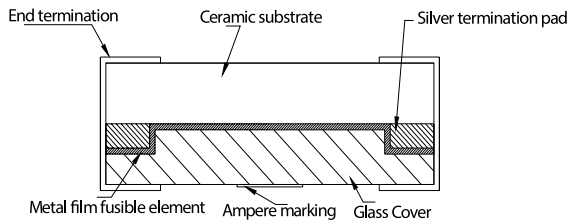
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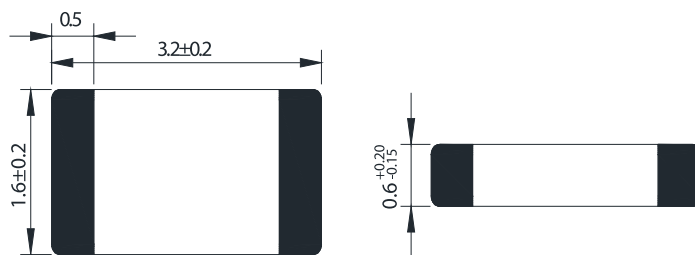
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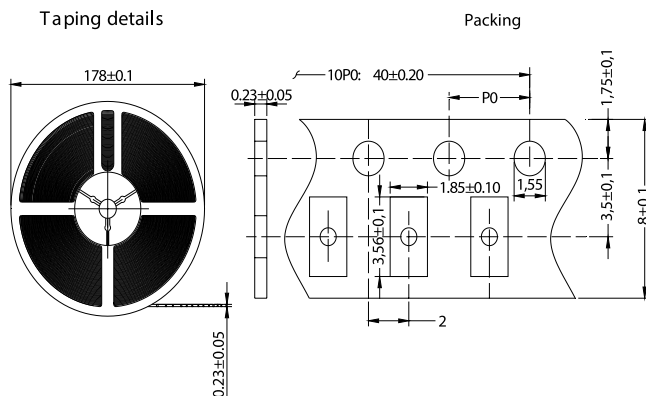
Mechanical Specifications



Diagram



Packing Information



Dimensions : Millimetres

Part Number Table

Description	Part Number
SMD Fuse, Time-Lag, 1A, 12V AC, 63V DC, 1206	MP001606
SMD Fuse, Time-Lag, 2A, 12V AC, 63V DC, 1206	MP001607
SMD Fuse, Time-Lag, 3A, 12V AC, 63V DC, 1206	MP001608
SMD Fuse, Time-Lag, 4A, 12V AC, 63V DC, 1206	MP001609
SMD Fuse, Time-Lag, 5A, 12V AC, 32V DC, 1206	MP001610

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