

Fast-Acting SMD Fuses 1206

multicomp **PRO**

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 subminiature fuses.

Applications

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

Features

- Rapid interruption of excessive current
- Pass the AEC-Q200 automotive grade certified
- 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 (A)	Rated Voltage DC	Typical Voltage Drop (mV)	Breaking Capacity	Type Cold Resistance (mΩ)	Typical Melting I ² t (A ² sec)
MP001605	500mA	72V	650	50A@72V	1028	0.0022
MP001599	1A	63V	510	50A@63V	490	0.1
MP001600	1.5A	32V	367	50A@32V	240	0.15
MP001601	2.5A	24V	240	300A@24V	83	0.65
MP001602	5A	32V 24V	141	50A@32V 300A@24V	22	2.89

Notes:

- (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°C
- (3) Typical pre-arcing I²t are measured at 10I_n current
- (4) Designed to AEC-Q200 Automotive Grade Certified.

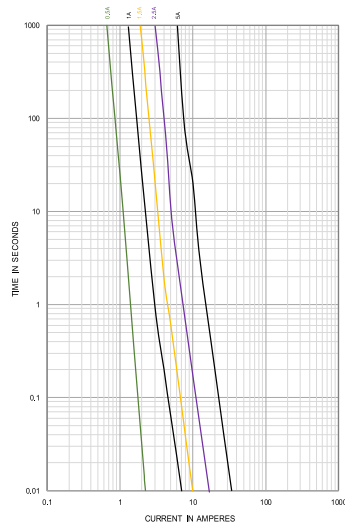
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Farnell.com/multicomp-pro
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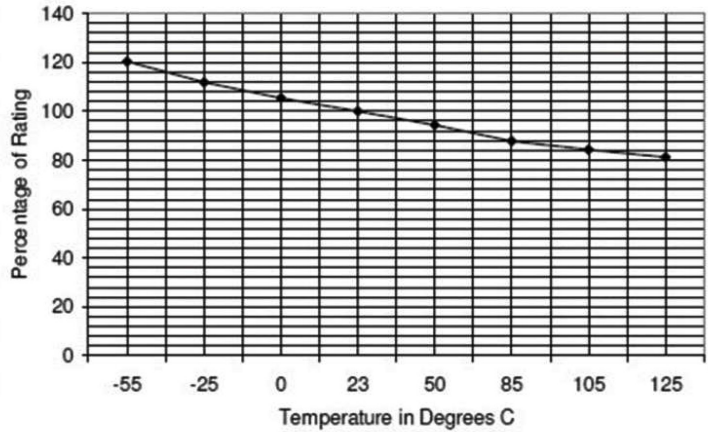
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Time vs Current Characteristics Table

Time vs Current Characteristics: UL-248-14		
Rated Current	100%	250%
500mA to 5A	>4H	<5s

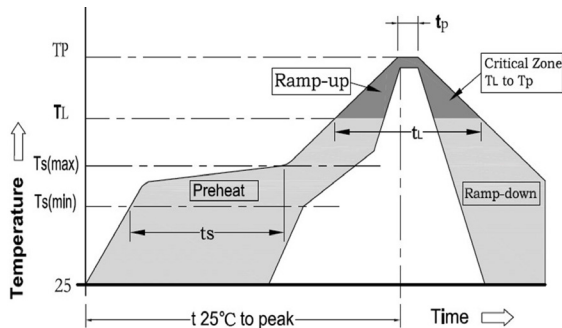


Temperature Derating Curve



- (1) Normal ambient temperature: 23°C ±3°C
- (2) Operating temperature: -55°C to +125°C, with proper correction factor applied

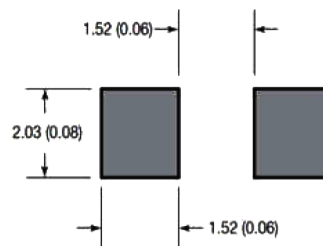
Soldering Parameters



Profile Feature		Pb-Free Solder
Average Ramp-UP Rate(Tsmax to Tp)		3°C/s Max.
Preheat	Temperature Min (Ts min)	150°C
	Temperature Max (Ts max)	200°C
	Time (Tsmin to Ts max)	60sec to 120sec
Liquidous temperature (Tl)		217°C
Time at liquidous (tl)		60sec to 150sec.
Peak package body temperature (Tp)		260°C
Time(tp) within 5°C of specified classification temperature(Tc)		30sec.
Average ramp-down rate (Tp to Tsmax)		6°C/s Max.
Time (25°C to Peak Temperature)		8 minutes Max.

- Infrared Reflow:**
 - Temperature: 260°C
 - Time: 5sec Max.
- Wave Soldering:**
 - Reservoir Temperature: 260°C
 - Time in Reservoir: 10sec Max.
- Hand Soldering**
 - Temperature: 300°C
 - Time: 2 sec. Max.

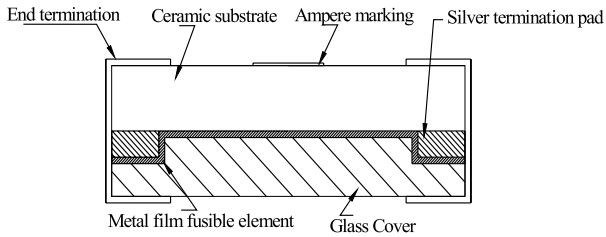
Recommended Land Pattern



Dimensions : Millimetres (Inches)

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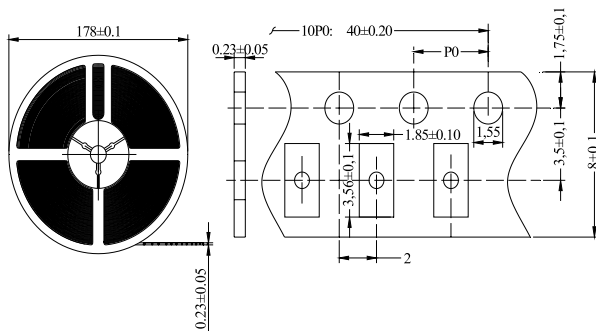
Mechanical Specifications



Diagram



Packing Information



Dimensions : Millimetres

Part Number Table

Description	Part Number
SMD Fuse, Fast-Acting, 0.5A, 72V DC, 1206	MP001605
SMD Fuse, Fast-Acting, 1A, 72V DC, 1206	MP001599
SMD Fuse, Fast-Acting, 1.5A, 72V DC, 1206	MP001600
SMD Fuse, Fast-Acting, 2.5A, 72V DC, 1206	MP001601
SMD Fuse, Fast-Acting, 5A, 32V DC, 1206	MP001602

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