

Fast-Acting Cartridge Fuses - Axial Leaded 5mm × 20mm

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**RoHS
Compliant**

Description

The fast-acting fuse with low breaking capacity for use with printed circuit boards is used in a large variety of applications. This $\Phi 5\text{mm} \times 20\text{mm}$ device is constructed of a glass tube with electro-plated brass end caps. It is with 250V AC rating and 100 Ampere breaking capacity, offers excellent quality and is 100% tested for cold resistance and precise length.

The fast-acting fuse is ideal for supplementary protection in electrical appliances and equipment to provide excellent protection for components or circuits.

Features

- Miniature fuse with fast-acting, low breaking capacity
- $\varnothing 5\text{mm} \times 20\text{mm}$ physical dimensions
- Glass tube, encapsulated design with nickel - plated brass end caps
- Protection against harmful over-currents in primary and secondary applications
- Lead-free and Halogen-free
- Designed compliant to IEC 60127-2/II

Specifications

Operating Temperature	: -55°C to +125°C
Stock Temperature	: +10°C to +60°C
	Relative humidity: $\leq 75\%$ yearly average
	Without dew, maximum 30 days at 95%
Vibration Resistance	: 24 cycles at 15 min. each (60068-6)
	10-60Hz at 0.75mm amplitude
	60-2000Hz at 10g acceleration

Electrical Characteristics at 25°C

Part Number	Rated Current (A)	Rated Voltage	Max. Voltage Drop (mV)	Max. Power Dissipation (W)	Code Resistance (m Ω)	Typical Melting I ² T (A ² s)	Breaking Capacity
MP006250	1	125V AC/250V AC	200	1.6	70.7 ~ 131	1.64	10KA/125V AC
MP006246	2		170	1.6	28.5 ~ 52.9	5.76	100A/250V AC

- Note: 1. Permissible continuous operating current is 100% at ambient temperature of 23°C (73.4°F)
2. The cURus certification by 125V and 250V; the VDE certification with 8A~10A by 125V and 250V; the others certification by 250V.
3. The current values used for calculating I²T should be within the standard range of 8ms ~ 10ms.

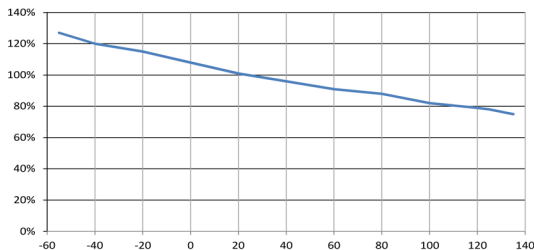
Time Vs Current Characteristic

Rated Current	150%	210%	275%	400%	1000%
1A to 2A	>1h	<30min	50ms~2s	10ms~400ms	≤40ms

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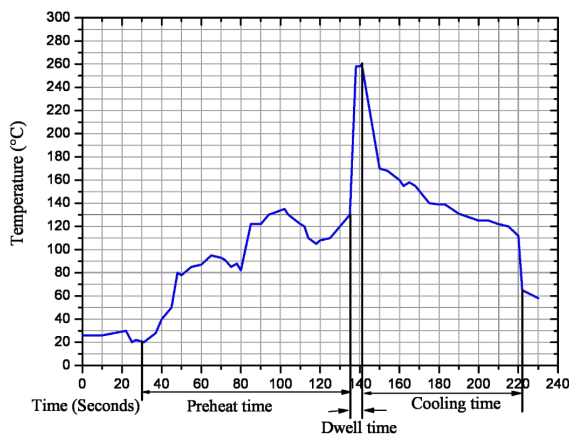
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Temperature Derating Curve



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

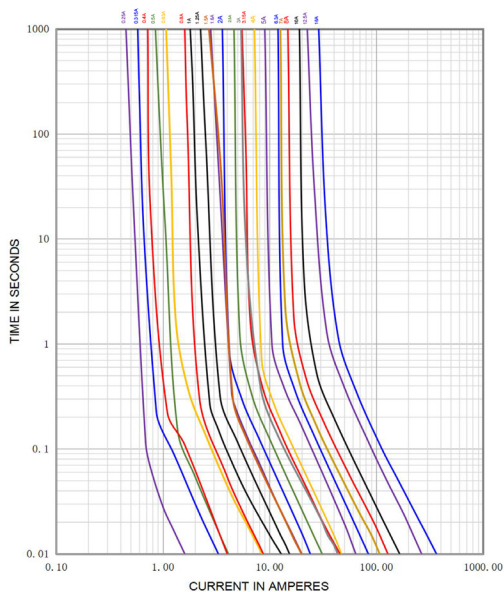
Soldering Parameters



260°C ≤ 5 sec (Wave Soldering)
350°C ≤ 3 sec (Hand Soldering)
Soldering Peak:
260°C - 10 sec (IEC 60068-20)

Average Time Current (I-T) Curves

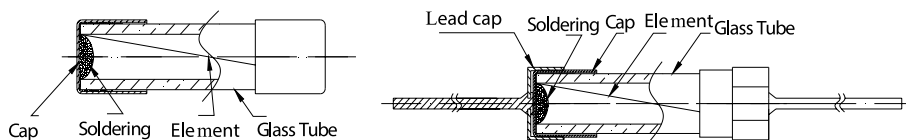
Average Current Curve(I-T Curve)



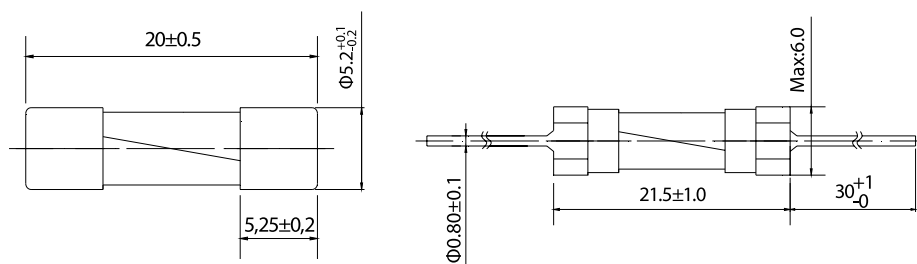
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Construction



Diagram



Part Number Table

Description	Part Number
Cartridge Fuse, Fast-Acting, 2A, 250V AC, Axial Leaded	MP006246
Cartridge Fuse, Fast-Acting, 1A, 250V AC, Axial Leaded	MP006250

Dimensions : Millimetres

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