

Fast-Acting Cartridge Fuses

5mm × 20mm

multicompPRO

**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 Ø5mm × 20mm 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
- Ø5mm × 20mm 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: ≤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

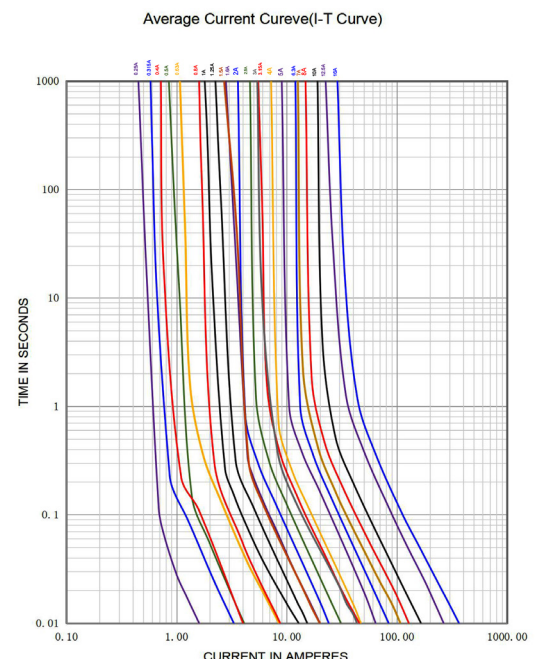
Time vs Current Characteristics Table

(measured with constant current power supply)

Time vs Current Characteristics			
Rated current	150%	210%	275%
0.25A~6.3A	>1h	<30min	50ms~2s
8A~10A	>1h	<30min	50ms~2s
12.5A~16A	>30min	<30min	50ms~3s

Time vs Current Characteristics		
Rated current	400%	1000%
0.25A~6.3A	10ms~300ms	≤20ms
8A~10A	10ms~400ms	≤40ms
12.5A~16A	10ms~600ms	≤80ms

Average Time Current (I-T) Curves



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Electrical Characteristics at 25°C

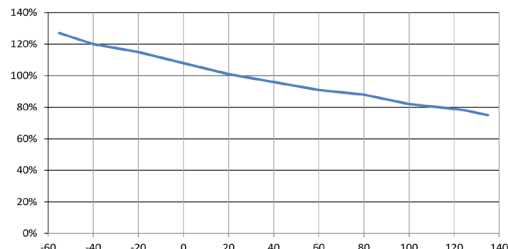
Amp Code	Rated Current	Rated Voltage DC	Max. Voltage Drop (mV)	Max. Power Dissipation (W)	Typ. Cold Resistance (mΩ)	Nominal Melting I ² t(A ² sec)	Breaking Capacity
0315	0.315A	125V AC 250V AC	1300	1.6	860	0.109	10KA/125V AC 100A/250V AC
1100	1A		200	1.6	101	1.64	
1200	2A		170	1.6	40.65	5.76	
1500	5A		130	2.5	13.5	41	
1800	8A		130	4	7.5	164	
2100	10A		130	4	6.3	272	
2150	15A		100	6	3.2	980	

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.

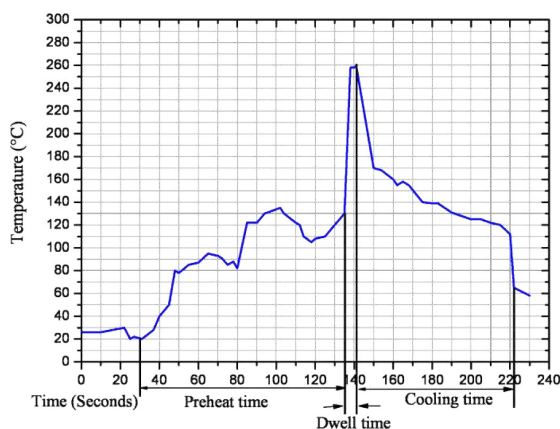
Temperature Derating Curve

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:

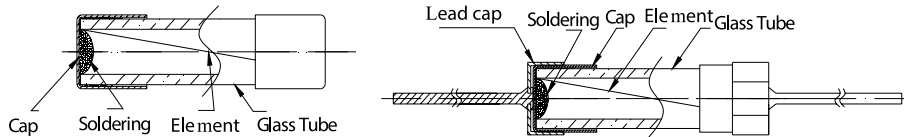
260°C - 10 sec (IEC 60068-20)

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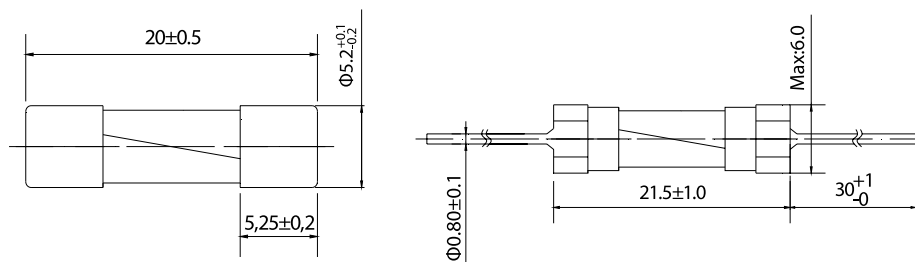
5mm × 20mm

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Construction



Diagram



Part Number Table

Description	Part Number
Fast-Acting Miniature Cartridge Fuse, 0.315A, 250V AC, 5mm × 20mm	MP007113
Fast-Acting Miniature Cartridge Fuse, 1A, 250V AC, 5mm × 20mm	MP007114
Fast-Acting Miniature Cartridge Fuse, 1A, 250V AC, 5mm × 20mm	MP006250
Fast-Acting Miniature Cartridge Fuse, 2A, 250V AC, 5mm × 20mm	MP006246
Fast-Acting Miniature Cartridge Fuse, 5A, 250V AC, 5mm × 20mm	MP007115
Fast-Acting Miniature Cartridge Fuse, 8A, 250V AC, 5mm × 20mm	MP007116
Fast-Acting Miniature Cartridge Fuse, 10A, 250V AC, 5mm × 20mm	MP007117
Fast-Acting Miniature Cartridge Fuse, 15A, 250V AC, 5mm × 20mm	MP007118

Dimensions : Millimetres

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