

Time-Lag Cartridge Fuses

5mm × 20mm

multicomp PRO

**RoHS
Compliant**



Description

The time-lag fuse with low breaking capacity for use with printed circuit boards is used in a large variety of applications. This 5mm × 20mm device is constructed of a glass tube with electro-plated brass end caps. It is with 250V AC rating and 35A or 10In Ampere breaking capacity, offers excellent quality and is 100% tested for cold resistance and precise length

The time-lag 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
- Optional axial leads are Ø0.65mm × 38mm @ 0.5A to 2A
- 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

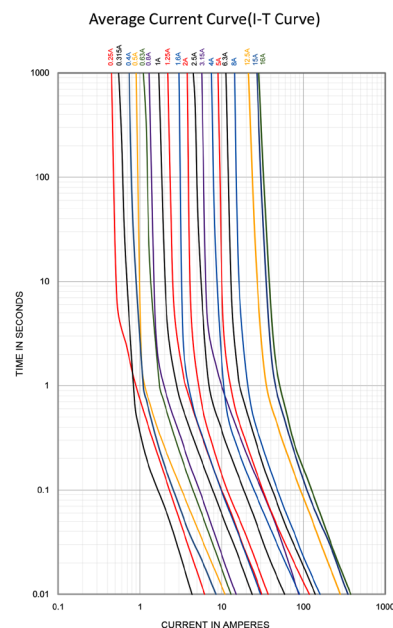
Time vs Current Characteristics Table

(measured with constant current power supply)

Time vs Current Characteristics			
Rated current	150%	210%	275%
0.1A	>1h	<2min	200ms-10s
0.125A~10A	>1h	<2min	600ms~10s
12A~16A	>30min	<5min	600ms~15s

Time vs Current Characteristics		
Rated current	400%	1000%
0.1A	40ms-3s	10ms~300ms
0.125A~10A	150ms~3s	20ms~300ms
12A~16A	150ms~5s	20ms~400ms

Average Time Current (I-T) Curves



Time-Lag Cartridge Fuses

5mm × 20mm

Electrical Characteristics at 25°C

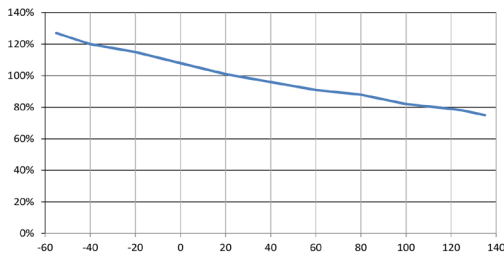
Amp Code	Rated Current	Rated Voltage DC	Max. Voltage Drop (mV)	Max. Power Dissipation (W)	Nominal Melting I ² t(A ² sec)	Typ. Cold Resistance (mΩ)	Breaking Capacity
0500	0.5A	250V AC	900	1.6	1.21	185.3	35A or 10In@250V AC
1100	1A		150	1.6	5.52	71	
1160	1.6A		150	1.6	9	42	
1200	2A		150	1.6	13.7	32	
1250	2.5A		120	1.6	36	41.5	
1400	4		100	1.6	81	14.3	
1630	6.3		100	1.6	196	8.2	
1800	8		100	4	256	6.5	
2100	10		100	4	435	5.3	

Note:

- (1) Permissible continuous operating current is 100% at ambient temperature of 23°C (73.4°F)
- (2) The current values used for calculating I²T should be within the standard range of 8ms ~ 10ms.

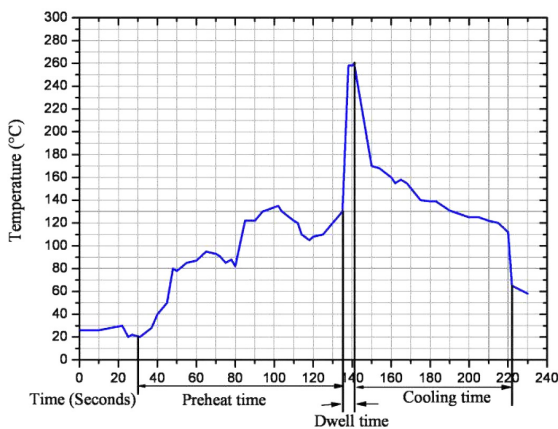
Temperature Derating Curve

Temperature Derating Curve



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

Soldering Parameters



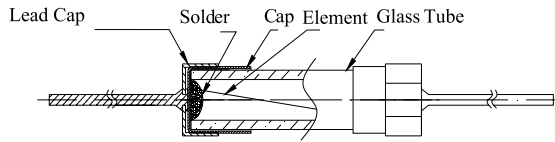
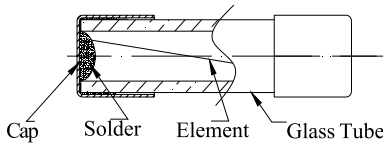
- 260°C ≤ 5 sec (Wave Soldering)
- 350°C ≤ 3 sec (Hand Soldering)
- Soldering Peak: 260°C - 10 sec (IEC 60068-20)

Time-Lag Cartridge Fuses

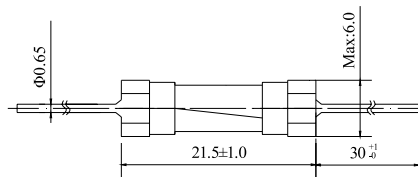
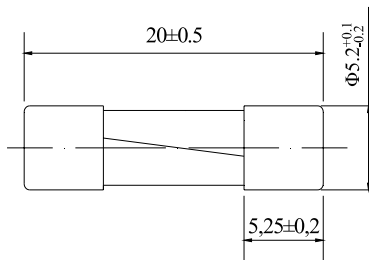
5mm × 20mm



Construction



Diagram



Part Number Table

Description	Part Number
Cartridge Fuse, Time-Lag, 0.5A, 250V AC, 5mm × 20mm	MP006248
Cartridge Fuse, Time-Lag, 1A, 250V AC, 5mm × 20mm	MP006247
Cartridge Fuse, Time-Lag, 1.6A, 250V AC, 5mm × 20mm	MP007124
Cartridge Fuse, Time-Lag, 2A, 250V AC, 5mm × 20mm	MP006249
Cartridge Fuse, Time-Lag, 2A, 250V AC, 5mm x 20mm	MP007119
Cartridge Fuse, Time-Lag, 2.5A, 250V AC, 5mm x 20mm	MP007125
Cartridge Fuse, Time-Lag, 4A, 250V AC, 5mm x 20mm	MP007120
Cartridge Fuse, Time-Lag, 6.3A, 250V AC, 5mm x 20mm	MP007121
Cartridge Fuse, Time-Lag, 8A, 250V AC, 5mm x 20mm	MP007122
Cartridge Fuse, Time-Lag, 10A, 250V AC, 5mm x 20mm	MP007123

Dimensions : Millimetres

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