

Description

These series fast-acting fuse with low breaking capacity for use with printed circuit boards and is used in a variety of applications. This $\Phi 2\text{mm} \times 7\text{mm}$ device is constructed of a ceramic body with electro-plated brass end caps. This series comes with 250V AC rating and 50 Ampere breaking capacity, offers excellent quality and is 100% tested for cold resistance and precise length.

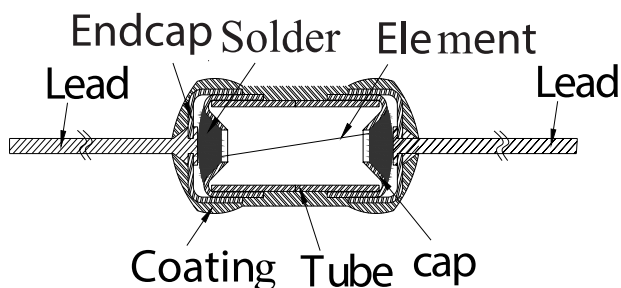
Features

- Subminiature fuse with fast-acting, low breaking capacity
- $\Phi 2\text{mm} \times 7\text{mm}$ physical dimensions
- Ceramic tube, encapsulated with epoxy coating and with nickel plated brass end caps
- Optional axial leads are $0.6\text{mm} \times 26.5\text{mm}$
- Protection against harmful over-currents in primary and secondary applications.
- Designed compliant to UL 248-14

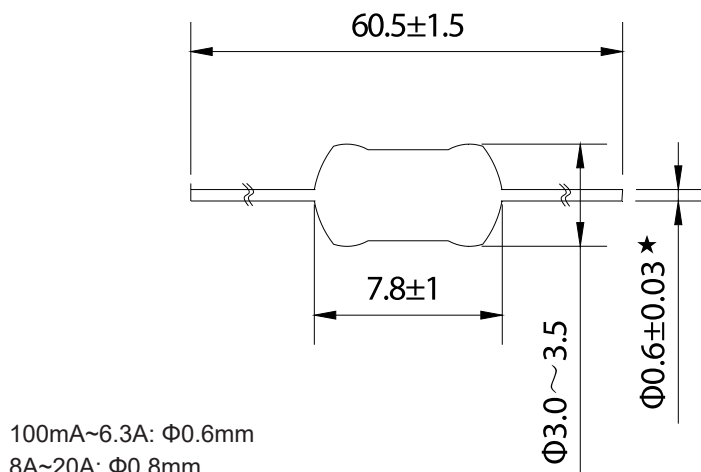
Specifications

Operating Temperature	: -55°C to 125°C
Storage Conditions	: +10°C to +60°C
Relative humidity	: $\leq 75\%$ yearly average without dew, maximum 30 days at 95%
Vibration Resistance	: 120 cycles in 1 direction at 1 min. each 10-55Hz, 3 directions (X, Y, Z) in total According to MIL-STD-202 Method 201A

Mechanical Specifications



Dimensions



100mA~6.3A: $\text{Ø}0.6$ mm
8A~20A: $\text{Ø}0.8$ mm

Dimensions : Millimetres

Electrical Specifications

Time vs Current Characteristics Table

(measured with constant current power supply)

Rated Current	100 %	210 %
200mA~16A	>4h	<60 min

Electrical characteristics

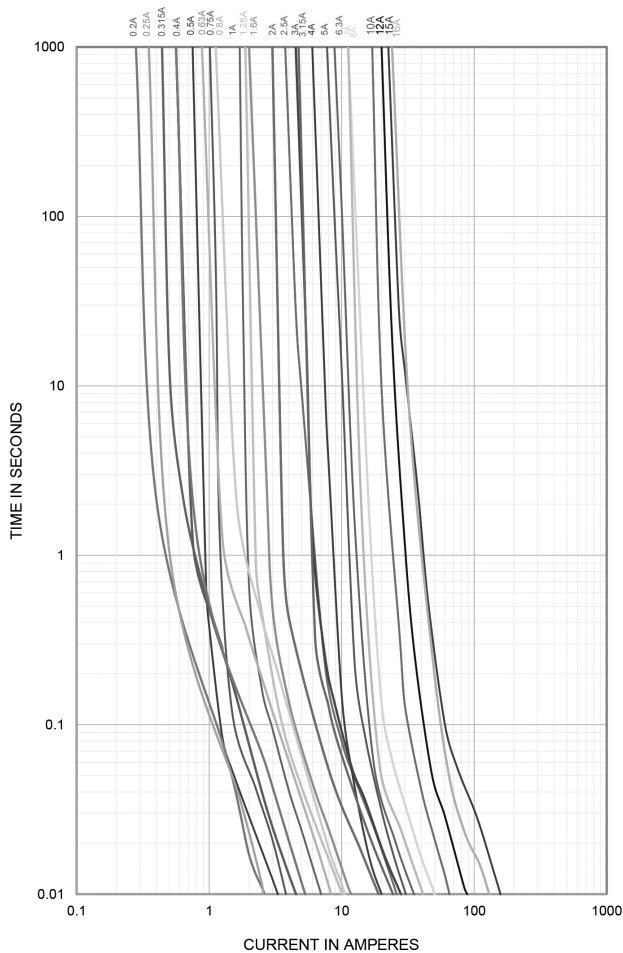
Electrical Characteristics at 25°C					
Amp Code	Rated Current	Rated Voltage	Typical Cold Resistance (mΩ)	Nominal Melting I^2t (A ² sec)	Breaking Capacity
MP014122	500mA	125V AC 250V AC	201	0.48	50A@250V AC 50A@125V AC
MP014123	1A		60	0.531	
MP014124	1.6A		37.84	0.85	
MP014125	2.5A		20.5	5.83	
MP014126	4A		13.5	4.7	
MP014127	10A	32V AC 16V AC	5.05	41	35A@250V AC 35A@125V AC
MP014128	15A		3.01	249.6	

Notes: (1) Permissible continuous operating current is 100% at ambient temperature of 23°C (73.4°F)

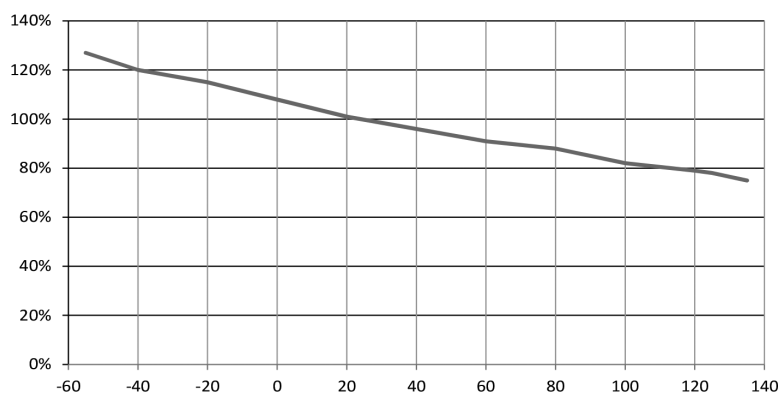
(2) The cURus and cULus certification for 100mA~10A only by 125V and 250V AC, for 12A~16A only by 16V and 32V AC; the TUV certification only by 250V AC.

(3) The current values used for calculating I^2t should be within the standard range of 8ms ~ 10ms.

Average Time Current (I-T) Curves



Temperature Derating Curve



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

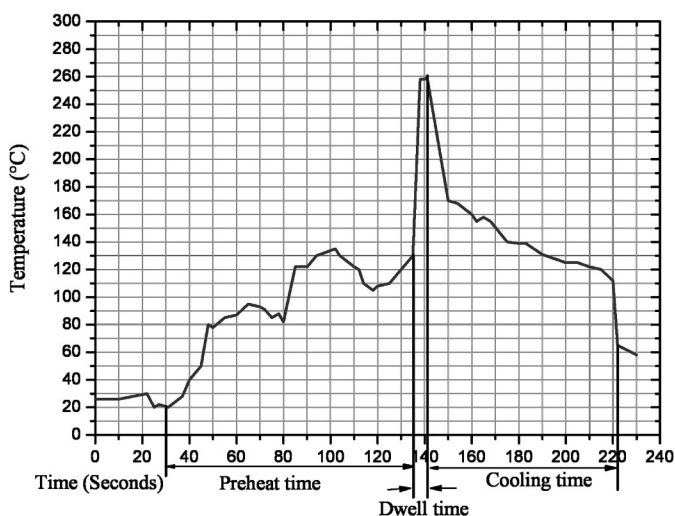
Soldering Parameters

260°C.≤5 sec (Wave Soldering)

350°C.≤3 sec (Hand Soldering)

Soldering Peak:

260°C - 10 sec (IEC 60068-20)



Part Number Table

Description	Part Number
Fast acting Micro fuse, 500mA/250V, 2mm × 7mm	MP014122
Fast acting Micro fuse, 1A/250V, 2mm × 7mm	MP014123
Fast acting Micro fuse, 1.6A/250V, 2mm × 7mm	MP014124
Fast acting Micro fuse, 2.5A/250V, 2mm × 7mm	MP014125
Fast acting Micro fuse, 4A/125V, 2mm × 7mm	MP014126
Fast acting Micro fuse, 10A/250V, 2mm × 7mm	MP014127
Fast acting Micro fuse, 15A/250V, 2mm × 7mm	MP014128

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