

RoHS
Compliant



Description

The brick fuse for the small size and good electrical performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our brick fuses more heat and shock tolerant than typical brick fuses.

Features

- Rapid interruption of excessive current
- Ceramic body and silver plated copper terminal
- Excellent environmental integrity
- One time positive disconnect
- Operating Temperature: -55°C to +125°C
- Storage Conditions: +10°C to +60°C
- Vibration Resistance: 24 cycles at 15 min. each (60068-6)
- Lead-free and Halogen-free
- Designed to UL 248-14

Electrical Characteristics

Part Number	Rated Current	Rated Voltage	Max. Voltage Drop (mV)	Typical Melting I ² t(A ² sec)	Typical Cold Resistance (mΩ)	Breaking Capacity
MP012924	20A	125V AC 250V AC 32V DC 72V DC	90	132	2.78	150A@125V AC 150A@250V AC 1000A@32V DC 500A@72V DC
MP012925	25A		75	196	2.16	
MP012926	30A		70.2	225	1.78	
MP012927	40A		68.5	756.25	1.16	

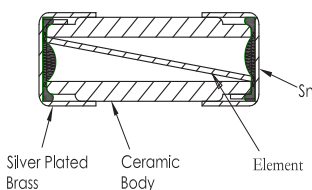
Note: (1) Permissible continuous operating current is ≤100% at ambient temperature of 23°C (73.4°F)
(2) The current values used for calculating I²T should be within the standard range of 8ms ~ 10ms

Time VS Current Characteristics Table

(Measured with constant current power supply)

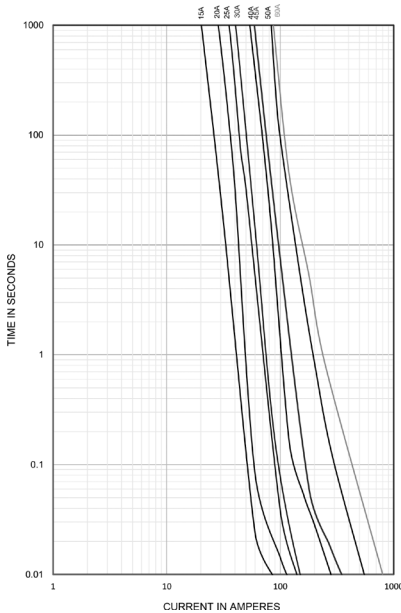
Rated Current	100%	200%
20A to 40A	>4H	<60s

Construction

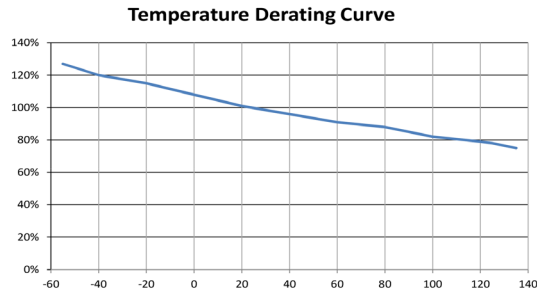


Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

Average Time Current (I-T) Curves

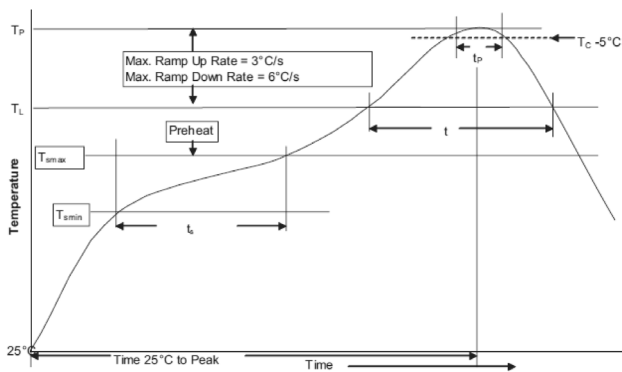


Temperature Derating Curve



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

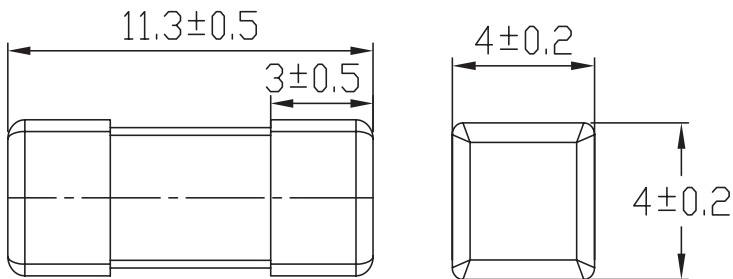
Soldering Parameters



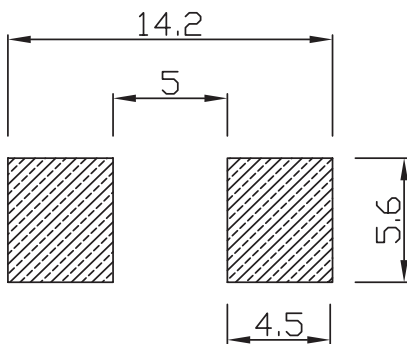
1. Infrared Reflow: Temperature: 260°C
Time: 30sec Max.
Recommend reflow profile
2. Wave Soldering
Reservoir
Temperature: 260°C
Time in Reservoir: 10sec Max.

Profile Feature	Lead (Pb) free solder
Average Ramp-UP Rate (T _{max} to T _p)	3°C/s Max.
Preheat and soak	Temperature min.(T _{min})
	Temperature max.(T _{max})
	Time (T _{min} to T _{max})(t _s)
Liquidous temperature (T _L)	217°C
Time at liquidous (t _L)	60~150s
Peak package body temperature (T _p)	260°C
Time (t _P) within 5°C of the specified classification temperature (T _c)	30s
Average ramp-down rate (T _p to T _{max})	6°C/s Max.
Time (25°C to Peak Temperature)	8 Minutes Max.

Diagram



Recommended Land Pattern



Part Number Table

Description	Part Number
SMD Brick Fuse, Time Lag, 1140 size, 20A	MP012924
SMD Brick Fuse, Time Lag, 1140 size, 25A	MP012925
SMD Brick Fuse, Time Lag, 1140 size, 30A	MP012926
SMD Brick Fuse, Time Lag, 1140 size, 40A	MP012927

Dimensions : Millimetres

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