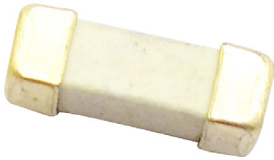


RoHS
Compliant



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 gold 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
MP012916	15A	32V DC 72V DC 125V AC	80	190	3.37	1000A@32V DC 500A@72V DC 150A@125V AC 100A@250V AC*
MP012917	20A		55	506	2.07	
MP012918	25A		50	756	1.78	
MP012919	30A		75	1122	1.53	

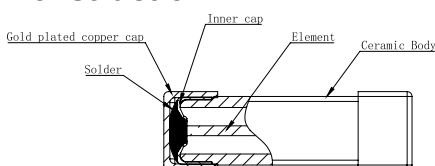
Note: (1) Permissible continuous operating current is ≤100% at ambient temperature of 23°C (73.4°F)
 (2) The current values used for calculating I²T should be within the standard range of 8ms ~ 10ms.
 (3) * Breaking Capacity of 100A @250V AC is tested by internal, certification is pending.

Time VS Current Characteristics Table

(Measured with constant current power supply)

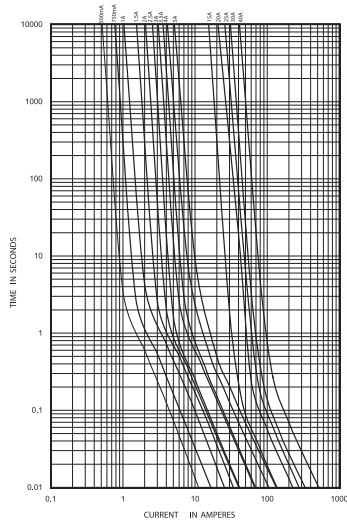
Rated Current	100%	200%
15A to 30A	>4H	<60s

Construction

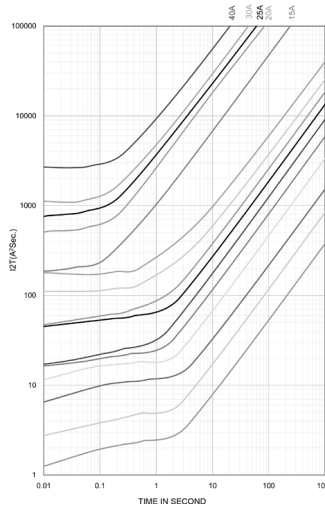


Newark.com/multicomp-pro
 Farnell.com/multicomp-pro
 sg.element14.com/b/multicomp-pro

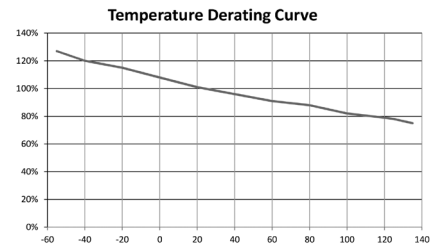
Average Time Current (I-T) Curves



I2T Curves

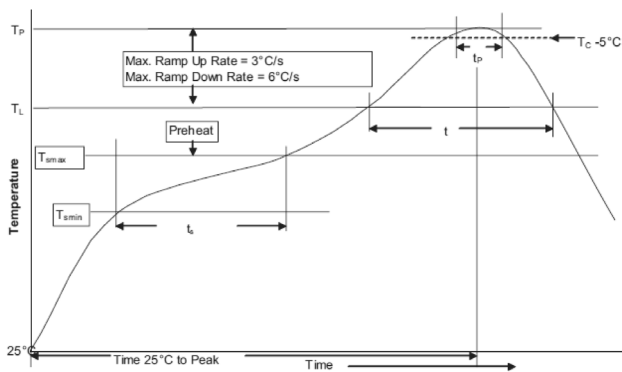


Temperature Derating Curve



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

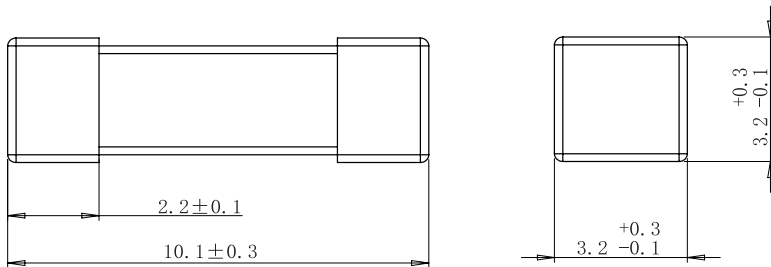
Soldering Parameters



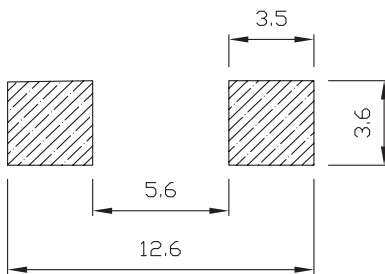
1. Infrared Reflow: Temperature: 260°C
Time: 30sec Max.
Recommend reflow profile
2. Wave Soldering
Reservoir
Temperature: 260°C
Time in Reservoir: 10sec Max.

Profile Feature	Lead (Pb) free solder	
Average Ramp-UP Rate (T _{smax} to T _p)	3°C/s Max.	
Preheat and soak	Temperature min.(T _{smin})	150°C
	Temperature max.(T _{smax})	200°C
	Time (T _{smin} to T _{smax})(t _s)	60 ~ 120s
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 _{smax})	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, Fast Acting, 1032 size, 15A	MP012916
SMD Brick Fuse, Fast Acting, 1032 size, 20A	MP012917
SMD Brick Fuse, Fast Acting, 1032 size, 25A	MP012918
SMD Brick Fuse, Fast Acting, 1032 size, 30A	MP012919

Dimensions : Millimetres

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