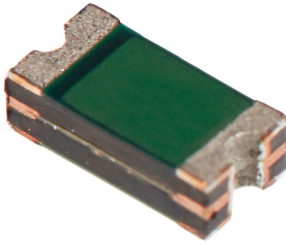


# Surface Mountable PTC Resettable Fuse 1206

**multicomp**PRO

**RoHS  
Compliant**



## Application

All high density boards.

## Features

- Small Surface Mountable
- Solid State
- Faster Time to Trip
- Lower Resistance
- Operation Current: 0.05A to 2A
- Maximum Voltage: 6V to 60V DC
- -40°C to +85°C Temperature Range
- Halogen Free
- UL Approved

## Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Rated Voltage	Max. Current	Typical Power	Max. Time to Trip		Resistance	
	I <sub>H</sub> (A)	I <sub>T</sub> (A)	V <sub>MAX</sub> (V DC)	I <sub>MAX.</sub> (A)	P <sub>d</sub> (W)	Current (A)	Time (Sec)	R <sub>MIN.</sub> (Ω)	R <sub>1MAX.</sub> (Ω)
MC011406	0.05	0.15	60	100	0.4	0.25	1.5	3.6	50
MC011407	0.1	0.25	60	100	0.4	0.5	1	1.6	15
MC011408	0.12	0.39	48	100	0.5	1	0.2	1.4	6.5
MC011409	0.16	0.45	48	100	0.5	1	0.3	1.1	5
MC011410	0.25	0.5	16	100	0.6	8	0.08	0.55	2.3
MC011411	0.25	0.5	24	100	0.6	8	0.08	0.55	2.3
MC011412	0.35	0.75	30	100	0.6	8	0.1	0.3	1.2
MC011413	0.5	1	24	100	0.6	8	0.1	0.15	0.75
MC011414	0.75	1.5	16	100	0.6	8	0.2	0.09	0.29
MC011415	1.1	2.2	16	100	0.8	8	0.3	0.04	0.18
MC011416	2	3.5	6	100	0.8	8	1.5	0.018	0.08

**I<sub>H</sub>** = Hold current-maximum current at which the device will not trip at 23°C still air.

**I<sub>T</sub>** = Trip current-minimum current at which the device will always trip at 23°C still air.

**V<sub>MAX</sub>** = Maximum voltage device can withstand without damage at it rated current.(I<sub>MAX.</sub>)

**I<sub>MAX</sub>** = Maximum fault current device can withstand without damage at rated voltage. (V<sub>MAX.</sub>)

**P<sub>d</sub>** = Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

**R<sub>MIN</sub>** = Minimum device resistance at 23°C prior to tripping.

**R<sub>1MAX</sub>** = Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad materials: Pure Tin

Newark.com/multicomp-pro

Farnell.com/multicomp-pro

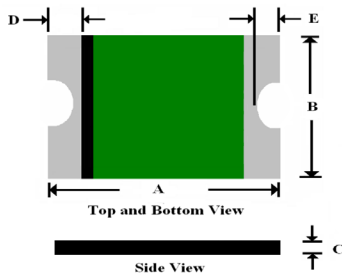
sg.element14.com/b/multicomp-pro

**multicomp**PRO

# Surface Mountable PTC Resettable Fuse 1206

**multicomp**PRO

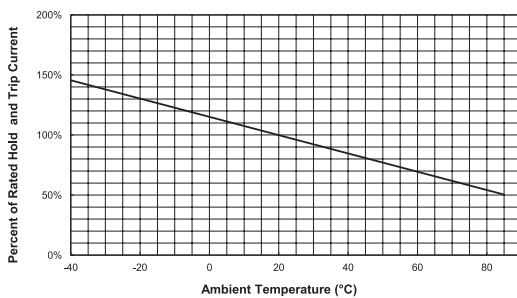
## Dimensions



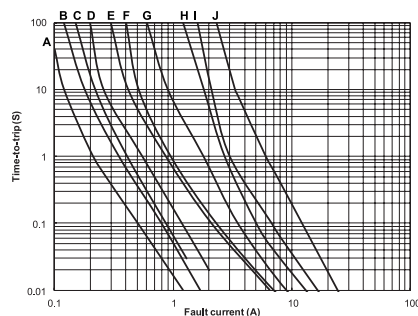
Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MC011406	3	3.5	1.5	1.8	0.45	0.85	0.1	0.75	0.1	0.45
MC011407	3	3.5	1.5	1.8	0.45	0.85	0.1	0.75	0.1	0.45
MC011408	3	3.5	1.5	1.8	0.45	0.85	0.1	0.75	0.1	0.45
MC011409	3	3.5	1.5	1.8	0.45	0.75	0.1	0.75	0.1	0.45
MC011410	3	3.5	1.5	1.8	0.45	0.75	0.1	0.75	0.1	0.45
MC011411	3	3.5	1.5	1.8	0.45	0.75	0.1	0.75	0.1	0.45
MC011412	3	3.5	1.5	1.8	0.9	1.3	0.25	0.75	0.1	0.45
MC011413	3	3.5	1.5	1.8	0.8	1.2	0.25	0.75	0.1	0.45
MC011414	3	3.5	1.5	1.8	0.45	1.25	0.25	0.75	0.1	0.45
MC011415	3	3.5	1.5	1.8	0.8	1.4	0.25	0.75	0.1	0.45
MC011416	3	3.5	1.5	1.8	0.85	1.6	0.25	0.75	0.1	0.45

Dimensions : Millimetres

## Thermal Derating Curve



## Typical Time-To-Trip at 23°C



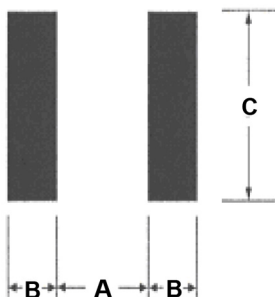
A = MC011406  
B = MC011407  
C = MC011408  
D = MC011409  
E = MC011410  
F = MC011411  
G = MC011412  
H = MC011414  
I = MC011415  
J = MC011416

## Material Specifications

- Terminal Pad Material: Pure Tin
- Soldering Characteristics: Meets EIA specifications RS 186-9E, ANSI/J-std-002 Category 3

## Pad Layouts – Solder Reflow and Rework Recommendations

The dimension in the table below provide the recommended pad layout.



Pad Dimensions

A	B	C
Nominal	Nominal	Nominal
2mm	1mm	1.9mm

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

**multicomp**PRO

# Surface Mountable PTC Resettable Fuse 1206

**multicomp**PRO

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T <sub>smax</sub> to T <sub>p</sub> )	3°C / second max.
<b>Preheat:</b> Temperature Min (T <sub>smin</sub> ) Temperature Max (T <sub>smax</sub> ) Time (t <sub>smin</sub> to t <sub>smax</sub> )	150°C 200°C 60 - 180 seconds
<b>Time Maintained Above:</b> Temperature T(L) Time t(L)	217°C 60 - 150 seconds
Peak/Classification Temperature (T <sub>p</sub> ):	260°C
<b>Time within 5°C of Actual Peak:</b> Temperature (t <sub>p</sub> )	20 - 40 seconds
<b>Ramp-Down Rate:</b>	6°C / second max.
<b>Time 25°C to Peak Temperature:</b>	8 minutes max.

**Note:** 1. All temperature refers to the package; measured on the package body surface.

## Solder Reflow

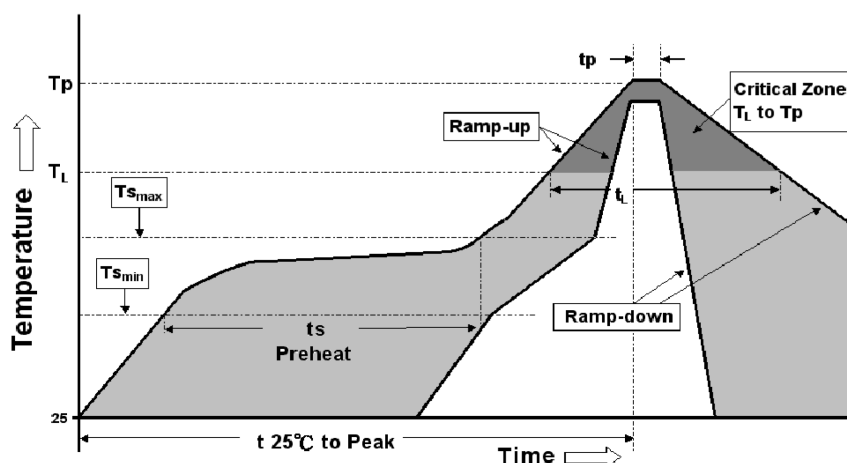
Due to "Lead Free" nature, Temperature and Dwelling time for the soldering zone is higher than those for Regular. This may cause damage to other components.

1. Recommended max past thickness > 0.25mm.
2. Devices can be cleaned using standard methods and aqueous solvent.
3. Rework use standard industry practices.
4. Storage Environment : < 30°C / 60%RH

## Caution

1. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
2. Devices are not designed to be wave soldered to the bottom side of the board.

## Reflow Profile



# Surface Mountable PTC Resettable Fuse 1206

**multicomp**PRO

**Part Number Table**

Description	Part Number
PTC Resettable Fuse, 0.05A, 60V DC, 1206	MC011406
PTC Resettable Fuse, 0.1A, 60V DC, 1206	MC011407
PTC Resettable Fuse, 0.12A, 48V DC, 1206	MC011408
PTC Resettable Fuse, 0.16A, 48V DC, 1206	MC011409
PTC Resettable Fuse, 0.25A, 16V DC, 1206	MC011410
PTC Resettable Fuse, 0.25A, 24V DC, 1206	MC011411
PTC Resettable Fuse, 0.35A, 30V DC, 1206	MC011412
PTC Resettable Fuse, 0.5A, 24V DC, 1206	MC011413
PTC Resettable Fuse, 0.75A, 16V DC, 1206	MC011414
PTC Resettable Fuse, 1.1A, 16V DC, 1206	MC011415
PTC Resettable Fuse, 2A, 6V DC, 1206	MC011416

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

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

**multicomp**PRO