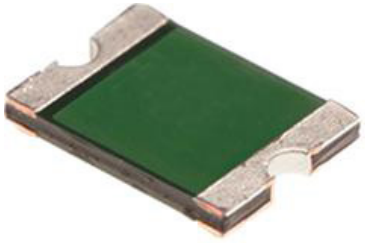
Surface Mountable PTC Resettable Fuse

multicomp PRO

RoHS Compliant



Applications

All high-density boards

Features

- Small surface mountable
- Solid state
- Faster time to trip than standard SMD devices
- Lower resistance than standard SMD devices

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
						Current	Time	RMIN	R1MAX
	I_H, A	I_T, A	V_{MAX}, V DC	I_{MAX}, A	Pd, W	Amp	Sec	Ohms	Ohms
MP008918	0.10	0.60	16	40	1.0	2.50	1.50	1.00	12.00
MP008919	0.10	0.35	30	10	0.8	1.00	0.10	1.10	10.00
MP008920	0.16	0.80	30	80	0.9	8.00	0.10	0.70	6.00
MP008921	0.20	0.50	30	10	0.9	8.00	0.10	0.60	4.50
MP008922	0.35	0.95	16	80	1.0	3.50	0.20	0.20	1.60
MP008923	0.10	0.35	30	10	0.9	1.00	0.50	1.20	11.00
MP008924	0.20	0.50	30	10	0.9	8.00	0.10	0.80	5.00
MP008925	0.50	1.50	6	10	1.1	8.00	0.05	0.19	0.90
MP008926	1.10	2.20	6	40	1.2	8.00	1.00	0.05	0.43
MP008927	1.10	2.20	16	50	2.0	8.00	2.00	0.09	0.41

I_H=Hold current-maximum current at which the device will not trip at 23°C still air.
IT=Trip current-minimum current at which the device will always trip at 23°C still air.
V_{MAX}=Maximum voltage device can withstand without damage at it rated current.(I MAX)
I_{MAX}= Maximum fault current device can withstand without damage at rated voltage (V MAX).
Pd=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.
R_{MIN}=Minimum device resistance at 23°C prior to tripping.
$R1_{MAX}$=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.
Termination pad characteristics
Termination pad materials: Pure Tin

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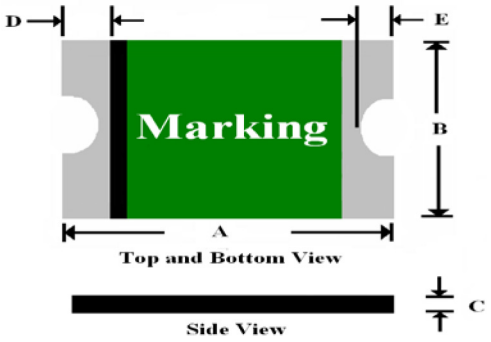
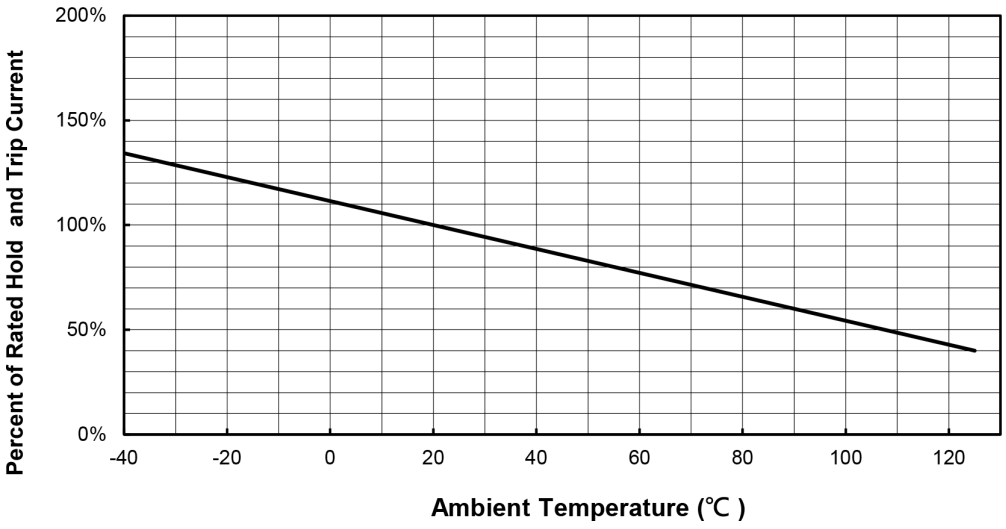
Product Dimensions



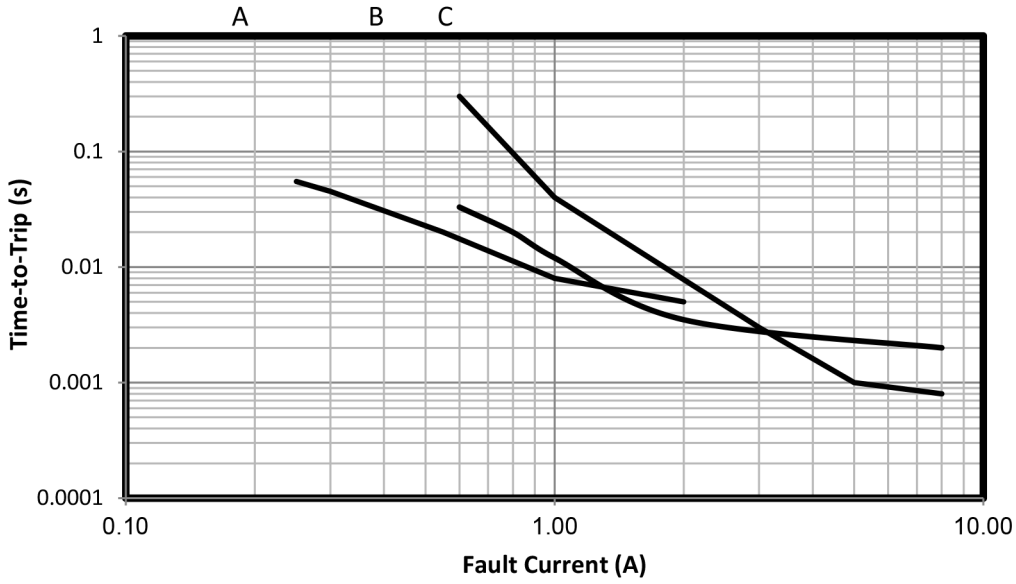
Part Number	A		B		C		D		E	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
MP008918	2.00	2.30	1.20	1.50	0.40	0.80	0.20	0.60	0.10	0.45
MP008919	3.00	3.50	1.50	1.80	0.30	1.20	0.10	0.75	0.10	0.45
MP008920	3.00	3.50	1.50	1.80	0.30	1.10	0.10	0.75	0.10	0.45
MP008921	3.00	3.50	1.50	1.80	0.30	1.10	0.10	0.75	0.10	0.45
MP008922	3.00	3.50	1.50	1.80	0.30	1.10	0.10	0.75	0.10	0.45
MP008923	3.00	3.43	2.35	2.80	0.30	1.20	0.25	0.75	0.10	0.45
MP008924	3.00	3.43	2.35	2.80	0.30	1.20	0.25	0.75	0.10	0.45
MP008925	3.00	3.43	2.35	2.80	0.30	1.20	0.25	0.75	0.10	0.45
MP008926	4.37	4.73	3.07	3.41	0.25	0.75	0.30	0.95	0.25	0.65
MP008927	6.73	7.98	4.80	5.44	0.30	1.70	0.50	1.20	0.50	0.90

Thermal Derating Curve



Typical Time-To-Trip at 23°C

B = MP008918



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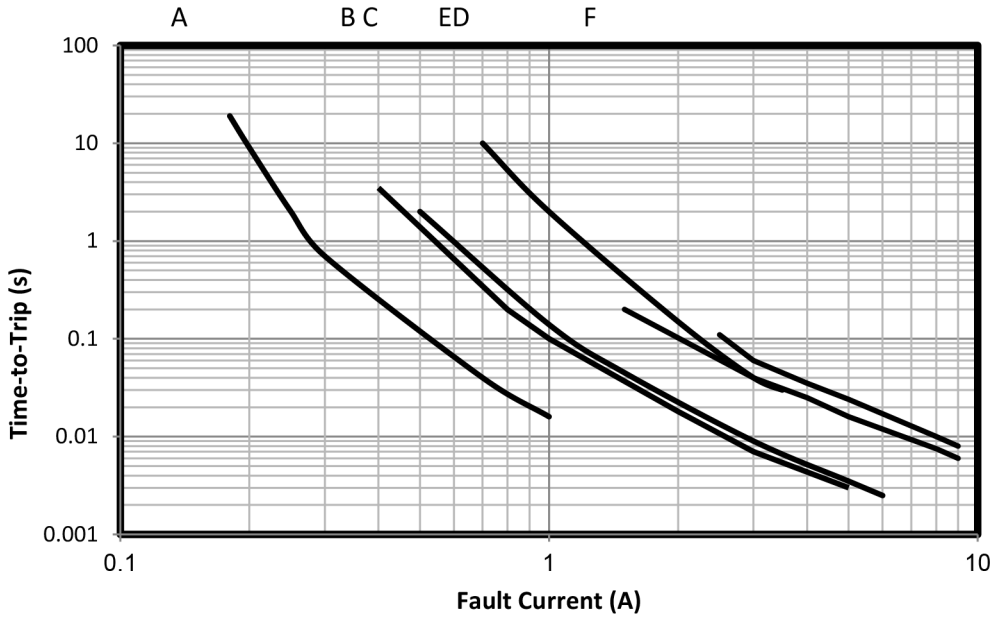
B = MP008920
C = MP008921
D = MP008922



A = MP008923
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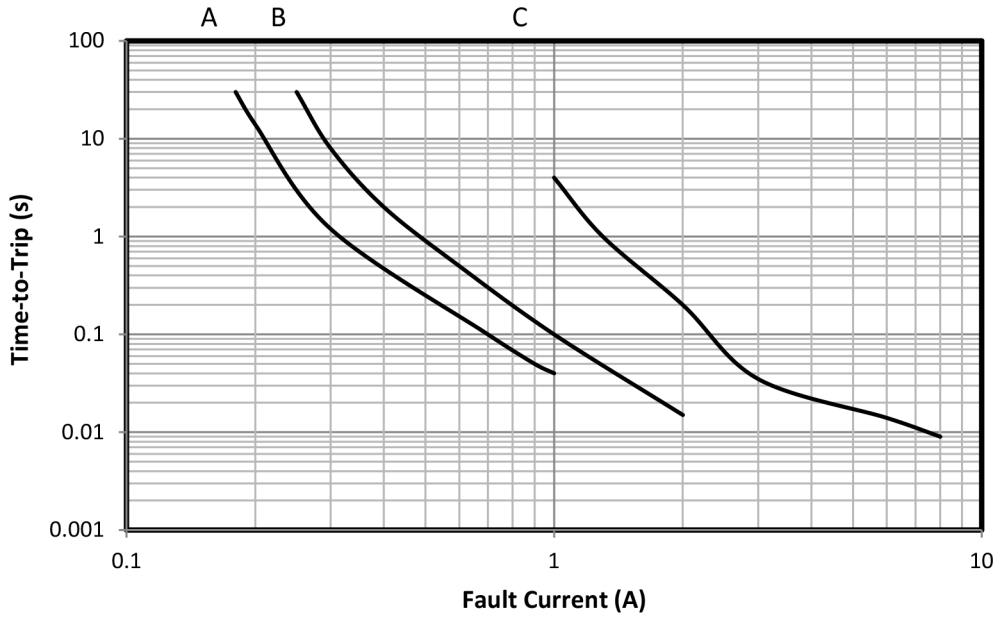
C = MP008925



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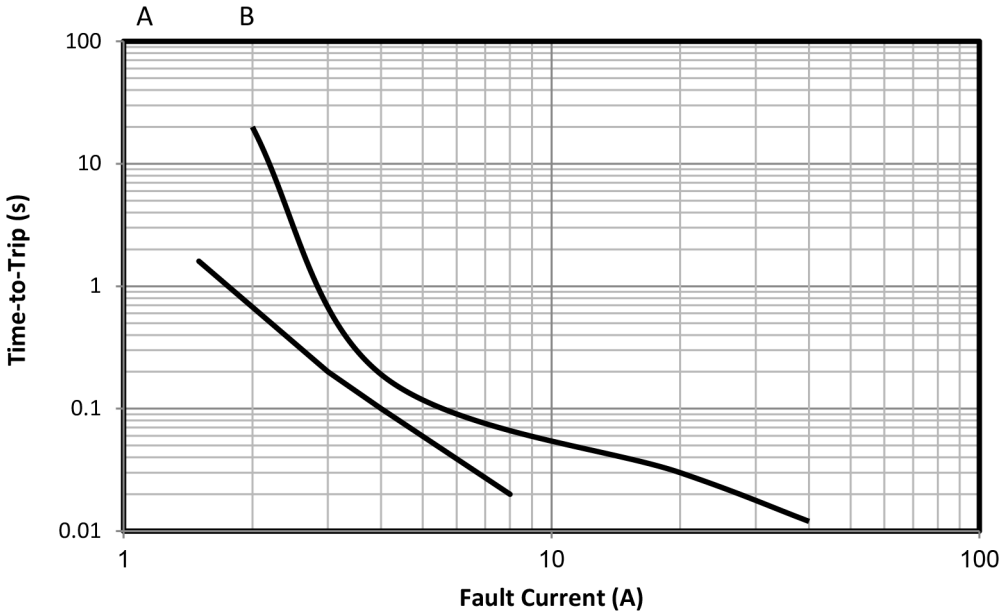
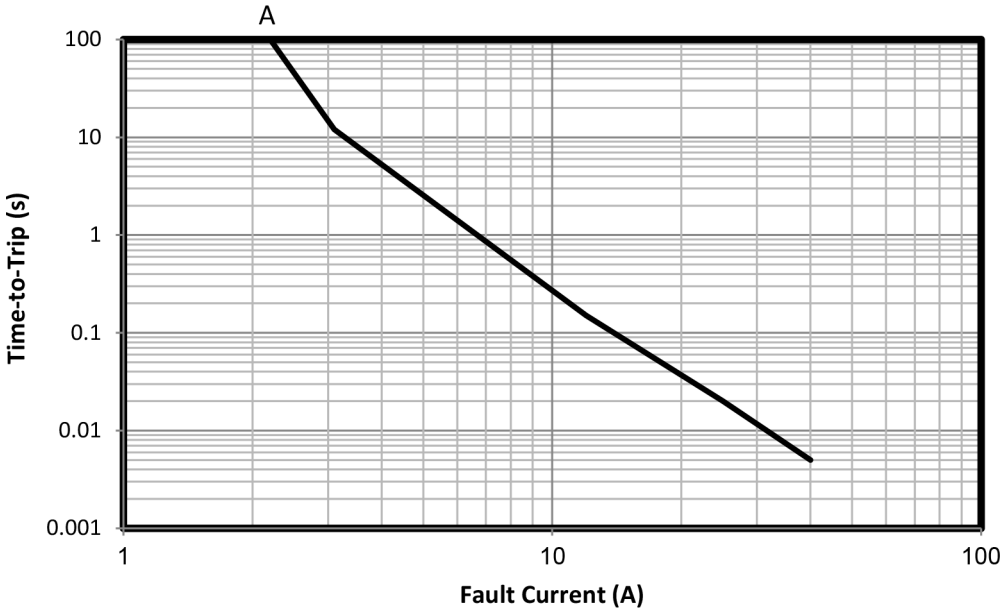
B = MP008926



A = MP008927



Material Specification

Terminal pad material: Pure Tin
Soldering characteristics: Meets EIA specification RS 186-9E, ANSI/J-std-002 Category 3

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Tsmax to Tp)	3°C/second max.
Preheat : Temperature Min (Tsmin) Temperature Max (Tsmax) Time (tsmin to tsmax)	 150°C 200°C 60-180 seconds
Time maintained above: Temperature(TL) Time (tL)	 217°C 60-150 seconds
Peak/Classification Temperature(Tp) :	260°C
Time within 5°C of actual Peak : Temperature (tp)	 20-40 seconds
Ramp-Down Rate :	6°C/second max.
Time 25°C to Peak Temperature:	8 minutes max.

Note 1: All temperatures refer to of 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 Envorinment : < 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.

Part Number Table

Description	Part Number
Fuse, PTC Resettable, 0805, 0.10A, SMD	MP008918
Fuse, PTC Resettable, 1206, 0.10A, SMD	MP008919
Fuse, PTC Resettable, 1206, 0.16A, SMD	MP008920
Fuse, PTC Resettable, 1206, 0.20A, SMD	MP008921
Fuse, PTC Resettable, 1206, 0.35A, SMD	MP008922
Fuse, PTC Resettable, 1210, 0.10A, SMD	MP008923
Fuse, PTC Resettable, 1210, 0.20A, SMD	MP008924
Fuse, PTC Resettable, 1210, 0.50A, SMD	MP008925
Fuse, PTC Resettable, 1.10A, SMD	MP008926
Fuse, PTC Resettable, 2920, 1.10A, SMD	MP008927
Fuse, PTC Resettable, 0805, 0.10A, SMD	MP008918
Fuse, PTC Resettable, 1206, 0.10A, SMD	MP008919
Fuse, PTC Resettable, 1206, 0.16A, SMD	MP008920
Fuse, PTC Resettable, 1206, 0.20A, SMD	MP008921
Fuse, PTC Resettable, 1206, 0.35A, SMD	MP008922
Fuse, PTC Resettable, 1210, 0.10A, SMD	MP008923
Fuse, PTC Resettable, 1210, 0.20A, SMD	MP008924
Fuse, PTC Resettable, 1210, 0.50A, SMD	MP008925
Fuse, PTC Resettable, 1.10A, SMD	MP008926
Fuse, PTC Resettable, 2920, 1.10A, SMD	MP008927