

Surface Mount PPTC Fuse 1812

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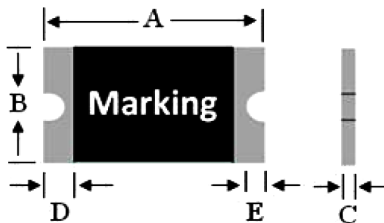
**RoHS
Compliant**



Features

- Faster tripping, 1812 Dimension
- Surface mount, Solid state
- Holding Current: 0.34A, @ 25°C
- Maximum Voltage: 60V DC
- Operating Temperature: -40°C to +85°C
- Lead-free and Halogen-free

Dimension



Part Number	Marking	A		B		C		D	E
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
MP001612	014	4.37mm	4.73mm	3.07mm	3.41mm	0.5mm	1.1mm	0.3mm	0.15mm

Electrical Specifications

Part Number	V _{Max.} (V)	I _{Max.} (A)	I _H (A)	I _T (A)	P _D (W)	Maximum Time-to-Trip		Resistance	
						Current (A)	Time (Sec)	R _{iMin} (Ω)	R _{1Max.} (Ω)
MP001612	60	100	0.14	0.34	0.8	1.5	0.15	0.65	6

I_H: Holding current, maximum current at which the device will not interrupt in 25°C still air.

I_T: Tripping current, minimum current at which the device from low resistance to high resistance in 25°C still air.

V_{MAX}: Maximum continuous voltage device can withstand without damage at rated current.

I_{MAX}: Maximum fault current device can withstand without damage at rated voltage.

Maximum Time-to-trip: Maximum time to trip at assigned current.

P_D: Typical amount of power dissipated from the device when in 25°C still air environment.

R_{iMin}: Minimum resistance of device at 25°C prior to tripping.

R_{1Max}: Maximum resistance of device is measured one hour post reflow.

Thermal Derating Chart-I_H (A)

Part Number	Maximum holding current at assigned ambient temperature (A)								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
MP001612	0.23	0.19	0.17	0.14	0.12	0.1	0.09	0.08	0.06

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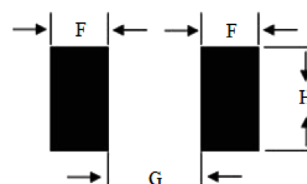
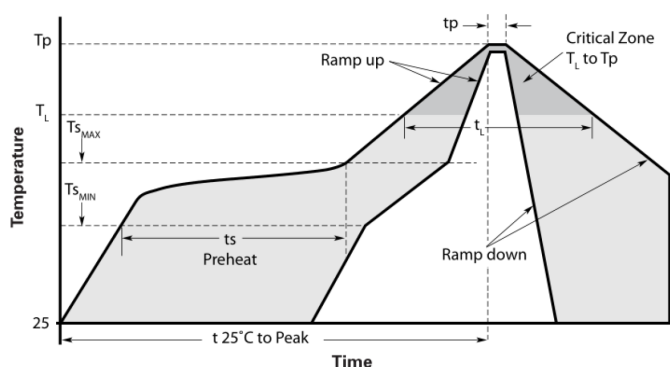
Physical Characteristics

Terminal Pad Materials	Tin-Plated Nickle-copper
Soldering Characteristics	EIA specification RS 186-9E, ANSI/J-STD-002
Moisture Sensitivity	Level 2a, per IPC/JEDEC J-STD 020C

Environmental Specifications

Test Item	Test Conditions	Resistance Change
Storage life	85°C, 1000 hours	±10% typical
Humidity Aging	85°C/85%RH. 100 hours	±5% typical
Thermal Shock	MIL-STD-202, Method 107G +85°C/-40°C, 20 times	-30% typical
Test Item	Test Conditions	Resistance Change
Storage Life	85°C, 1000 hours	±10% typical

Solder Reflow Profiles and Pad Layout Dimensions



Solder pad layout dimensions

F	G	H
1.78mm	3.45mm	3.2mm

Profile Feature		Pb-Free Assembly
Average Ramp-UP Rate(Tsmax to Tp)		3°C/s Max.
Preheat	Temperature Min (Ts min)	150°C
	Temperature Max (Ts max)	200°C
	Time (Tsmin to Ts max)	60sec to 120sec
Time maintained above Temperature (TL)		217°C
Time (tL)		60-150 seconds
Peak/Classification temperature (TP)		260°C
Time within 5°C of actual peak temperature		30 seconds max
Ramp down rate 3°C / second max		
Time 25°C to peak temperature 8 minutes max.		

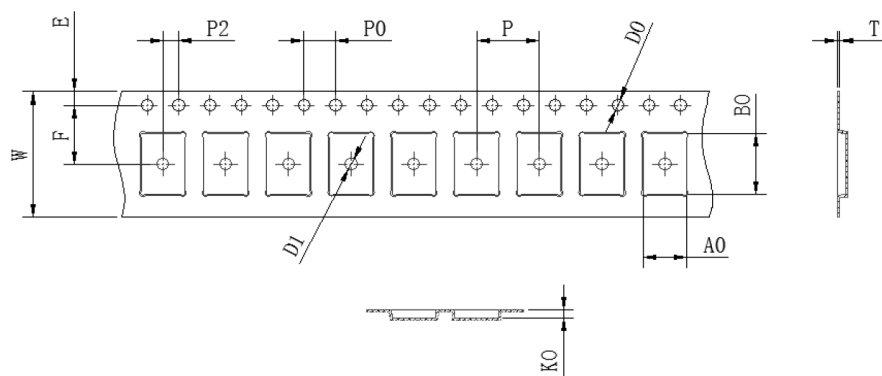
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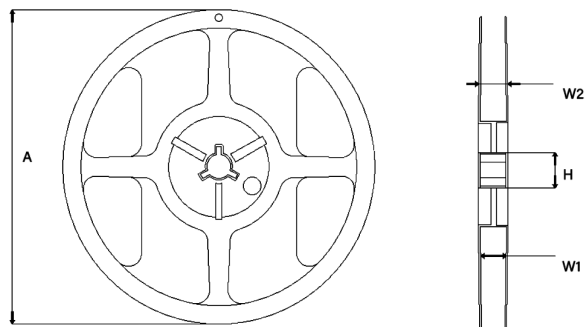
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Packing Information



W	P0	P1	P2	A0	B0	D0	D1	F	E	T	K0
12 ±0.2	4 ±0.1	8 ±0.1	2 ±0.1	3.58 ±0.1	4.93 ±0.1	1.5 +0.1/-0	1.5 +0.1/-0	5.5 ±0.1	1.75 ±0.1	0.3 ±0.05	0.87 ±0.1 1.15 ±0.1 1.55 ±0.1

Reel Dimensions



A	N	W1	W2
178 ±1	59 ±1	13.5 ±1	15.8 ±1

Dimensions : Millimetres

Part Number Table

Description	Part Number
PPTC Fuse, 0.34A, 60V DC, 1812	MP001612

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