**Polymer
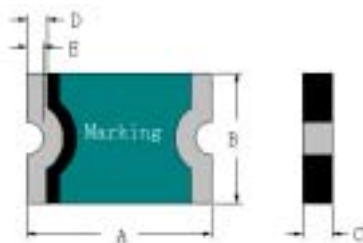PTC Devices**

Surface mount fuses

LP-MSM190

Features

☐ Small size of 1812

☐ Fast tripping resettable circuit protection

☐ Surface mount packaging for automated assembly
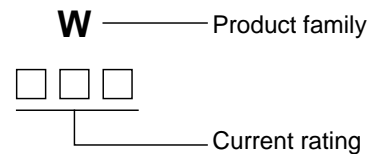
☐ Agency Recognition: UL CSA TUV

Product Dimensions (mm)

Part number	A Max.	B Max.	C Max.	D Max.	E Min.
LP-MSM190	11.51	5.33	0.55	0.60	0.30

Part Marking System

W ———— Product family

☐☐☐

———— Current rating

Electrical Characteristics

Part number	I_H (A)	I_T (A)	V_{max} (V)	I_{max} (A)	T_{trip} Current(A)	T_{trip} Time(S)	Pd_{typ} (W)	R_{min} ( )	R_{1max} ( )
LP-MSM190	1.90	3.80	16	100	10.0	2.00	1.5	0.024	0.08

I_H=Hold current: maximum current at which the device will not trip at 25 still air.

I_T=Trip current: minimum current at which the device will always trip at 25 still air.

V_{max}=Maximum voltage device can withstand without damage at rated current.

I_{max}=Maximum fault current device can withstand without damage at rated voltage.

T_{trip}=Maximum time to trip(s) at assigned current.

Pd_{typ}=Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R_{min}=Minimum device resistance at 25 prior to tripping.

R_{1max}=Maximum device resistance measured in the nontripped state 1 hour post reflow.

Solder Reflow Recommendations

T( )

Maximum package Body Temperature(240)

Melting Temperature of Solder(183)

250
200
150
100
50

Preheat   Stable Heat   Reflow   Cool

40 80 120 160 200 240 280 320 360   t(sec)
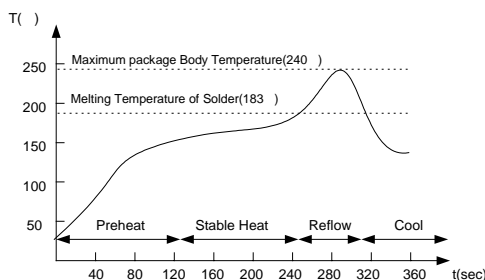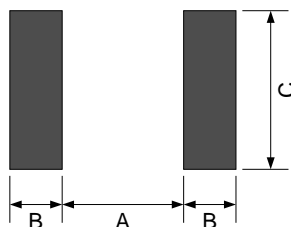
Solder Pad Layouts

Part number	A (mm)	B (mm)	C (mm)
LP-MSM190	9.57	1.45	4.75

* Recommended reflow methods: IR, Vapor phase oven, hot air oven, wave solder.

* Devices can be cleaned using standard industry methods and solvents.

Notes:

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Tape & Reel(bag): 1000pcs per bag.