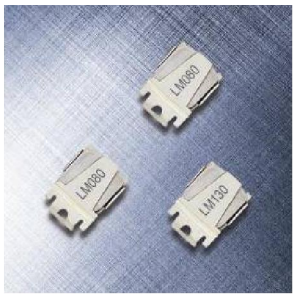
Polymer PTC Devices



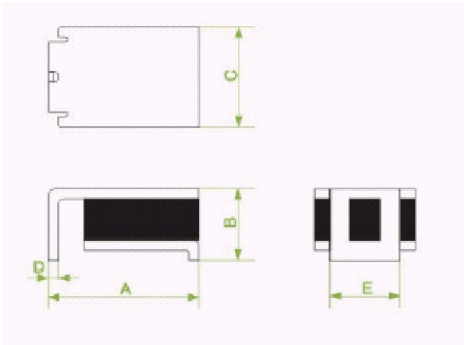
Features

- ☐ Surface mount devices
- ☐ High voltage surge capabilities
- ☐ Agency Recognition: UL、CSA、TUV
- ☐ Lead-free and compliant with the European Union RoHS Directive 2011/65/EU

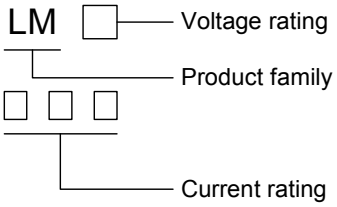
LM *series*

Product Dimensions

Part number	A	B	C	D	E
	Max.	Max.	Max.	Min.	Typ.
LM080	9.4	3.4	7.4	0.3	3.8
LM130	9.4	3.4	7.4	0.3	3.8



Marking system



Electrical Characteristics

Part number	I_H	I_T	Max. Time-to-trip		V_{max}	I_{max}	Pd_{typ}	R_{min}	R_{max}	R_{1max}
	(A)	(A)	Current (A)	Time (s)	(V)	(A)	(W)	(Ω)	(Ω)	(Ω)
LM080	0.080	0.160	1.00	0.80	250	3.0	1.00	14.0	22.0	40.0
LM130	0.130	0.260	1.00	2.50	250	3.0	3.00	6.5	12.0	20.0

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.

Max. Time-to-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_{max}=Maximum device resistance at 25℃ prior to tripping.

R_{1max}=Maximum device resistance measured one hour post-trip at 25℃.

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Thermal Derating Chart-$I_{H(A)}$

Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LM080	0.124	0.110	0.095	0.080	0.066	0.059	0.051	0.044	0.033
LM130	0.208	0.182	0.156	0.130	0.104	0.091	0.078	0.065	0.045

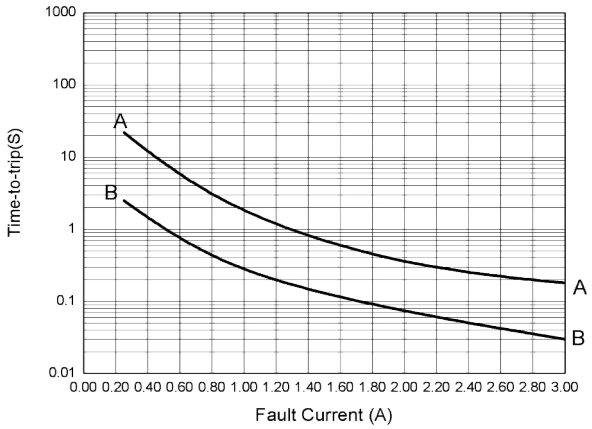
Test Procedures And Requirements

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25℃	$R_{min} \leqslant R \leqslant R_{max}$
Time to Trip	Specified current, V_{max}, 25℃	T≤maximum Time to Trip
Hold Current	30min, at I_H	No trip
Trip Cycle Life	V_{max}, I_{max}, 20cycles	No arcing or burning
Trip Endurance	V_{max}, 1hours	No arcing or burning

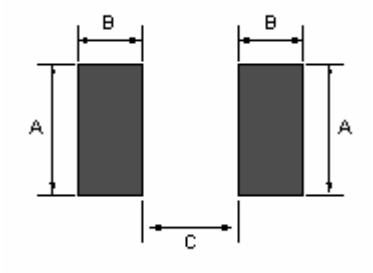
Typical Time-to-trip Charts at 25℃

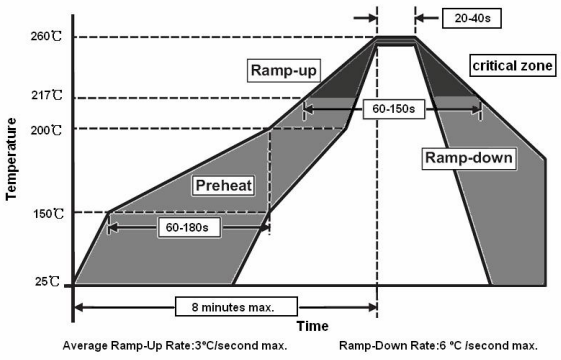
A=LM130

B=LM080



Solder Reflow Recommendations





Solder Pad Layouts

Part number	A (mm)	B (mm)	C (mm)
LM080	4.6	1.8	6.1
LM130	4.6	1.8	6.1

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

Bulk:
LM080~LM130……1000pcs per bag

Tape & Reel:
LM080~LM130……..1500pcs per reel

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