Surface Mountable PTC Resettable Fuse
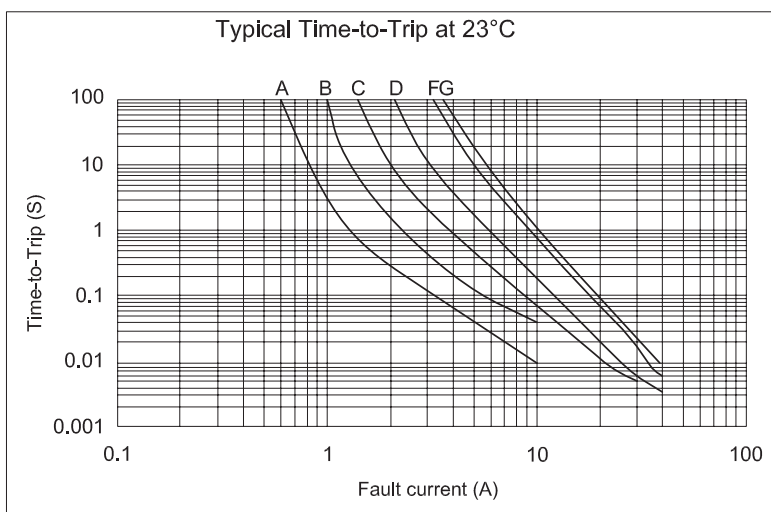
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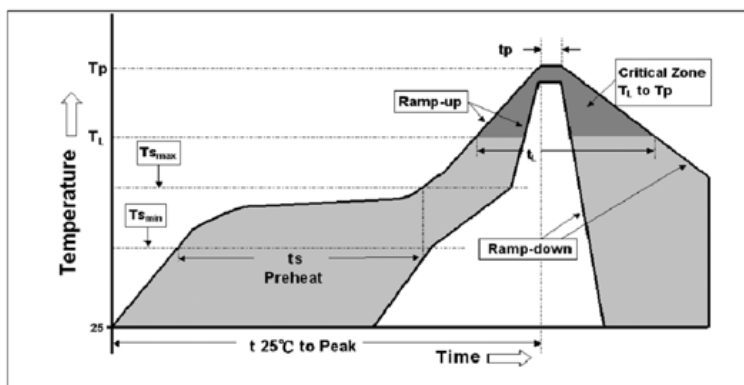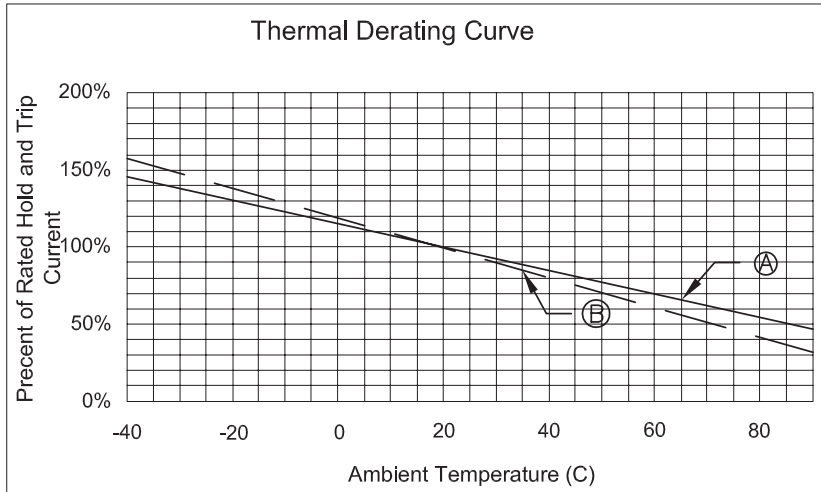## Specifications:

Lead Material	: Pure Tin
Soldering Characteristic	: Meets EIA specs. RS 186-9E, ANSI/J-std-002 Category 3
Operating Current	: 300mA to 3A
Maximum Voltage	: 6V to 60V
Temperature range	: -40°C to 85°C

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 (II) Time	217°C 60-150 seconds
Peak/Classification Temperature (Tp)	260°C
Time within 5C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate :	6°C/second Max.
Time 25°C to Peal Temperature :	8 minutes Max.

Typical Time-to-Trip at 23°C

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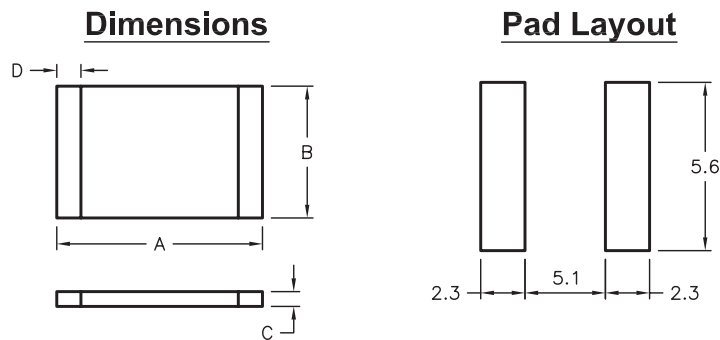Thermal Derating Curve

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.

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Dimensions

Pad Layout

Dimensions

Part Number	A		B		C		D
	Min.	Max.	Min.	Max.	Min.	Max.	Min.
MC33189	6.73	7.98	4.8	5.44	0.6	1.15	0.35
MC33192	6.73	7.98	4.8	5.44	0.6	1.15	0.35
MC33194	6.73	7.98	4.8	5.44	0.35	1.15	0.35
MC33195	6.73	7.98	4.8	5.44	0.4	1	0.35
MC33197	6.73	7.98	4.8	5.44	0.4	0.9	0.35
MC33198	6.73	7.98	4.8	5.44	0.3	0.9	0.35

Dimensions : Millimetres

Part Number Table

Description	Hold Current	Trip Current	Rated Voltage	Maximum Current	Typical power	Max. Time-to-Trip		Resistance Tolerance		Time-to-trip Curve Option	Thermal Derating Curve option	Part Number
						Current	Time	RMIN	R1MAX			
	IH, A	IT, A	VMax, V DC	IMax, A	Pd, W	A	Sec	Ω	Ω			
Fuse, Resettable, SMD, 0.3A	0.3	0.6	60	10	1.5	1.5	3	1	4.8	Option A	Option A	MC33189
Fuse, Resettable, SMD, 0.5A	0.5	1	60	10	1.5	2.5	4	0.3	1.4	Option B	Option A	MC33192
Fuse, Resettable, SMD, 0.75A	0.75	1.5	33	40	1.5	8	0.3	0.18	1	Option C	Option A	MC33194
Fuse, Resettable, SMD, 1.1A	1.1	2.2	33	40	1.5	8	0.5	0.09	0.41	Option D	Option A	MC33195
Fuse, Resettable, SMD, 1.5A	1.5	3	33	40	1.5	8	2	0.05	0.23	Option F	Option B	MC33197
Fuse, Resettable, SMD, 1.85A	1.85	3.7	33	40	1.5	8	2.5	0.04	0.15	Option G	Option B	MC33198

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