Surface Mountable PTC Resettable Fuse

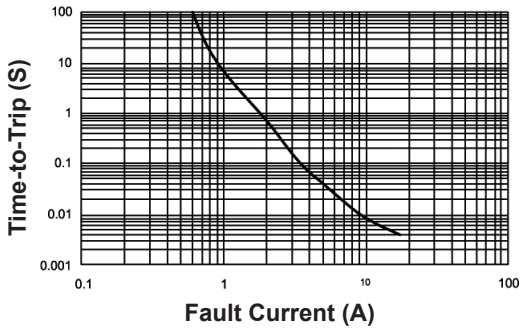
RoHS Compliant

Specifications:

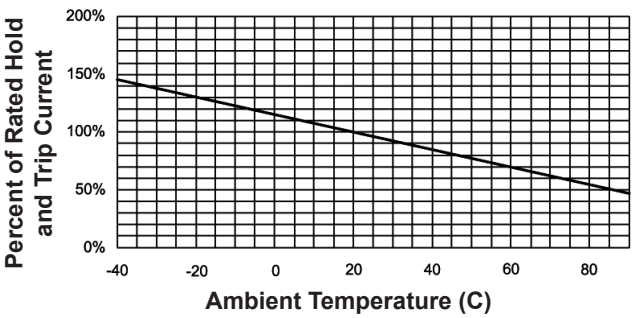
Terminal Pad Material	: Pure Tin
Soldering Characteristic	: Meets EIA specs. RS 186-9E, ANSI/J-std-002 Category 3
Series	: FSMD
PTC Fuse Case	: SMD
External Depth	: 1.65mm
External Length / Height	: 0.4mm
External Width	: 3.25mm
Operating Temperature	: -40°C to 85°C

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rage (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 (T_L) Time (t_L)	 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 Rage:	6°C/second max.
Time 25°C to Peak Temperature:	8 minute max.

Typical Time-to-Trip at 23°C



Thermal Derating Curve



Hold Current	Trip Current	Max. Time-to-trip		Rated Voltage	Max. Current	Typical Power	Resistance Tolerance	
		Current	Time				R_{MIN}	$R1_{MAX}$
I_H, A	I_T, A	A	Sec	V_{MAX}, V DC	I_{MAX}, A	Pd, W	Ω	Ω
0.5	1	8	0.1	8	40	0.4	0.15	0.7

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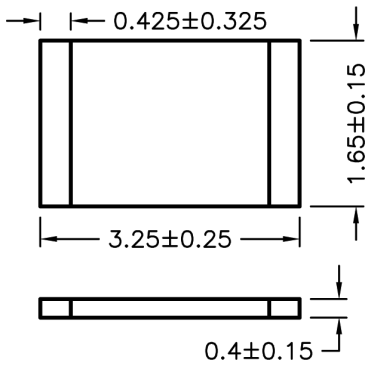
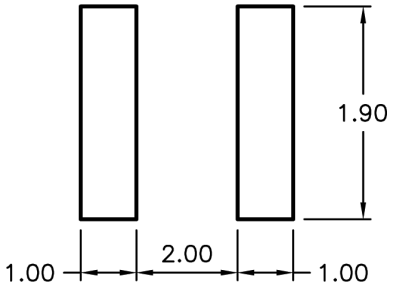
Dimension

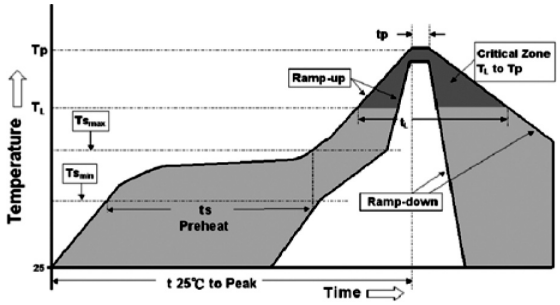


Pad Layout



Dimensions : Millimetres

Reflow Profile



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.

Part Number Table

Description	Part Number
Fuse, Resettable, SMD, 0.5A	MC33191