

Surface Mountable PTC Resettable Fuse



Specifications:

Applications	: All high-density boards
Product Features	: Dimension, Surface mountable, Solid state, Faster time to trip than standard SMD devices.
Temperature Range	: -40°C to 85°C



Electrical Characteristics (23°C)

Hold Current	Trip Current	Rated Voltage	Maximum Current	Typical Power	Max Time to Trip		Resistance		Part Number
					Current	Time	R Minimum	R1 Maximum	
I_H , A	I_T , A	V Maximum, V dc	I Maximum, A	Pd, W	Amp	Sec	ohms	ohms	
2.00	4.00	16	40	1.5	8.0	4.5	0.035	0.120	MC36240
2.50	5.00					16.0	0.025	0.085	MC36241

I_H = Hold current-maximum current at which the device will not trip at 23°C still air.

I_T = Trip current-minimum current at which the device will always trip at 23°C still air.

V_{MAX} = Maximum voltage device can withstand without damage at its rated current. (I maximum)

I_{MAX} = Maximum fault current device can withstand without damage at rated voltage (V maximum).

Pd = Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

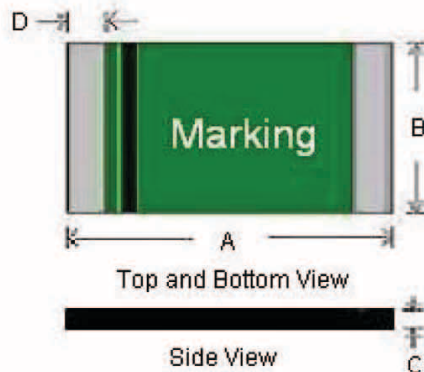
R_{MIN} = Minimum device resistance at 23°C prior to tripping.

$R1_{MAX}$ = Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

FSMD Product Dimensions (Millimeters)



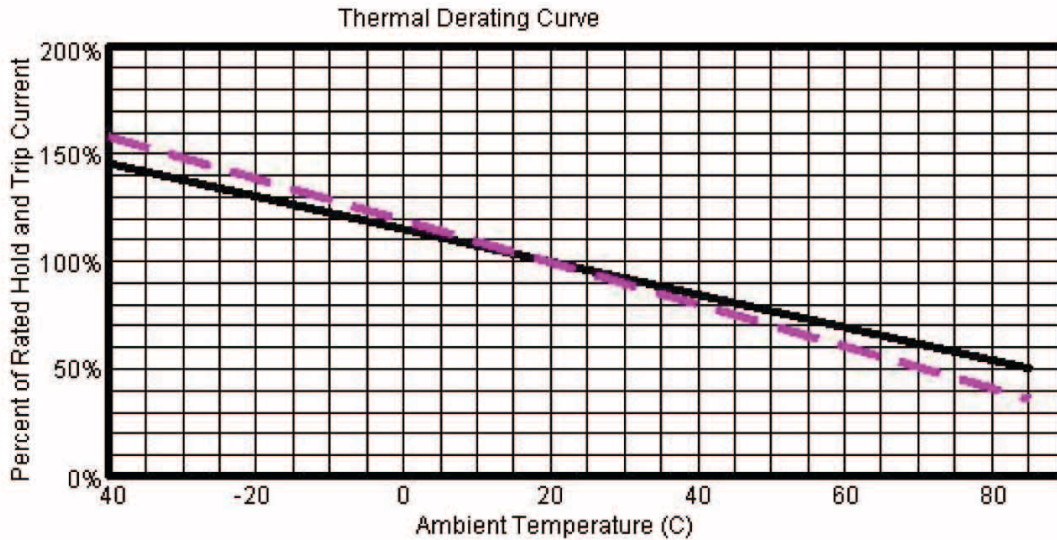
Specification Table

A		B		C		D	Part Number
Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	
6.73	7.98	4.80	5.44	0.30	0.90	0.35	MC36240
							MC36241

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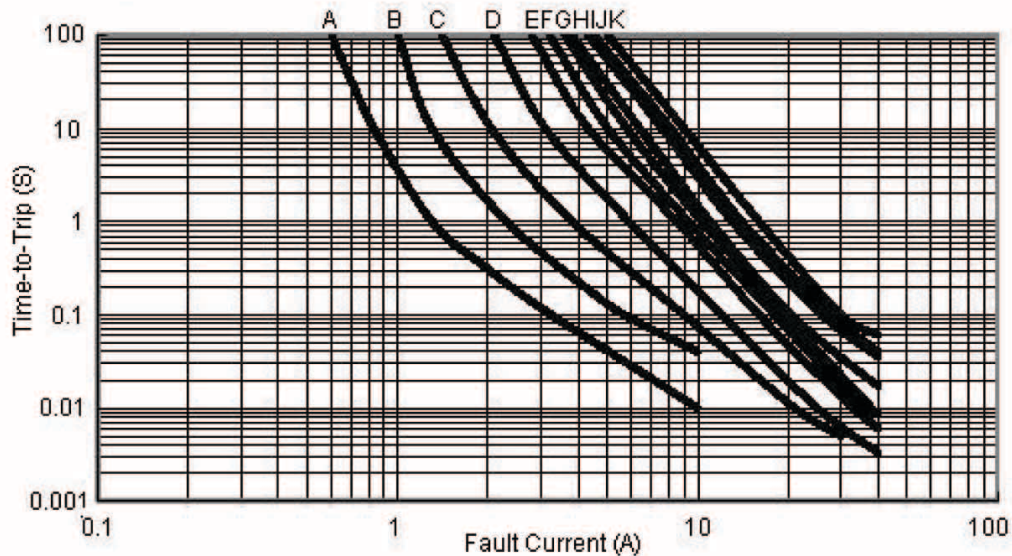


Thermal Derating Curve



Typical Time-To-Trip at 23°C

H = MC36240
I = MC36241



Material Specification

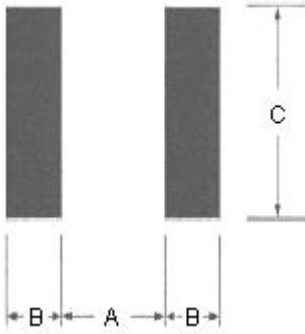
Terminal pad material : Pure Tin
Soldering characteristics : Meets EIA specification RS 186-9E, ANSI/J-std-002 Category 3

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Pad Layouts, Solder Reflow and Rework Recommendations

The dimension in the table below provide the recommended pad layout for each FSMD2920 device



Device	A Nominal	B Nominal	C Nominal
All 2920 Series	5.1	2.3	5.6

Dimensions: millimetres

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T _{max} to T _p)	3 °C/second maximum
Preheat : Temperature Minimum (T _{min}) Temperature Maximum (T _{max}) Time (t _{min} to t _{max})	150 °C 200 °C 60-180 seconds
Time maintained above: Temperature(T _L) Time (t _L)	217 °C 60-150 seconds
Peak/Classification Temperature(T _p) :	260 °C
Time within 5°C of actual Peak : Temperature (t _p)	20-40 seconds
Ramp-Down Rate :	6 °C/second maximum
Time 25 °C to Peak Temperature :	8 minutes maximum

Note 1: All temperatures refer to of the package, measured on the package body surface.

Solder reflow

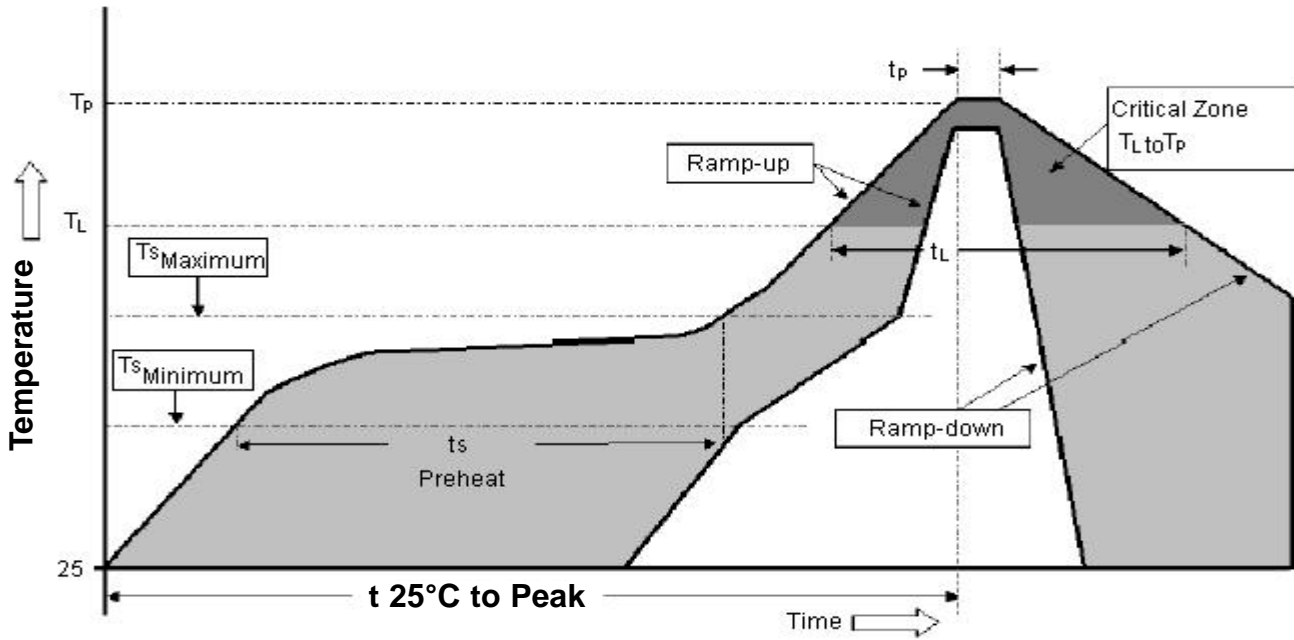
Due to "Lead Free" nature, Temperature and Dwelling time for the soldering zone is higher than those for Regular. This may cause damage to other components.

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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Part Number Table

Description	Part Number
Surface Mountable PTC Resettable Fuse	MC36240
Surface Mountable PTC Resettable Fuse	MC36241