

FEATURES

- 1210 size, Surface mount
- Application: All high-density boards
- Operation Current: 50mA ~ 0.750mA
- Maximum Voltage: 8V ~ 60V
- Temperature Range: -40°C to 85°C
- RoHS Compliant

AGENCY RECOGNITION

- UL (E211981)
- C-UL (E211981)
- TUV (R50090556)

ELECTRICAL CHARACTERISTICS (23°C)

Part Number	Hold Current	Trip Current	Rated Voltage	Maximum Current	Typical Power	Max Time to Trip		Resistance Tolerance	
						Current	Time	R _{MIN}	R _{1MAX}
	I _H , A	I _T , A	V _{MAX} , Vdc	I _{MAX} , A	Pd, W	Amp	Sec	OHMS	OHMS
FSMD005-1210	0.05	0.15	60	10	0.6	0.25	1.50	3.60	50.00
FSMD010-1210	0.10	0.25	60	10	0.6	0.50	1.50	1.60	15.00
FSMD020-1210	0.20	0.40	30	10	0.6	8.0	0.02	0.80	5.00
FSMD035-1210	0.35	0.70	16	40	0.6	8.0	0.20	0.32	1.30
FSMD050-1210	0.50	1.00	16	40	0.6	8.0	0.10	0.25	0.90
FSMD075-1210	0.75	1.50	8	40	0.6	8.0	0.10	0.13	0.40

* Devices with hold current up to 1.5 amps are in development

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

I_T=Trip current-maximum 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_{MAX}).

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

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

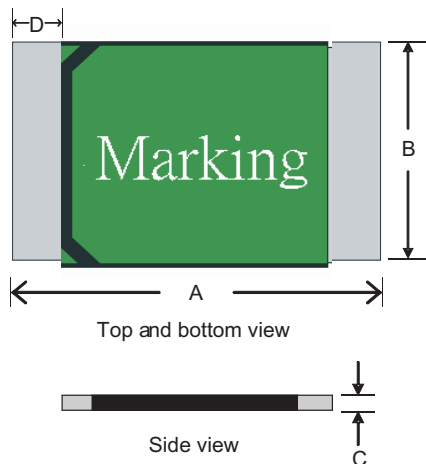
R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R_{1MAX}=Maximum device resistance at 23°C measured 1 hour post trip.

Termination pad characteristics

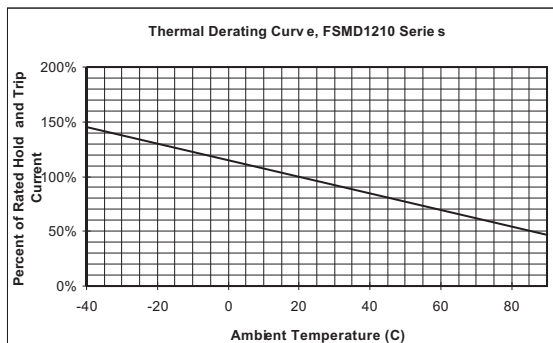
Termination pad materials: Tin-plated copper

FSMD1210 PRODUCT DIMENSIONS (MILLIMETERS)

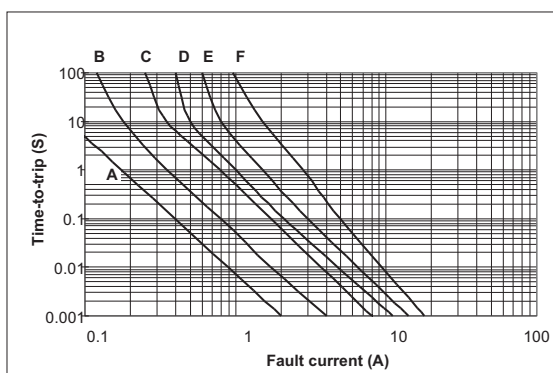


Part Number	A		B		C		D
	Min	Max	Min	Max	Min	Max	Min
FSMD005-1210	3.0	3.43	2.35	2.8	0.60	1.15	0.25
FSMD010-1210	3.0	3.43	2.35	2.8	0.60	1.15	0.25
FSMD020-1210	3.0	3.43	2.35	2.8	0.40	0.85	0.25
FSMD035-1210	3.0	3.43	2.35	2.8	0.40	0.80	0.25
FSMD050-1210	3.0	3.43	2.35	2.8	0.30	0.75	0.25
FSMD075-1210	3.0	3.43	2.35	2.8	0.30	0.70	0.25

■ **THERMAL DERATING CURVE**



■ **TYPICAL TIME-TO-TRIP AT 23°C**

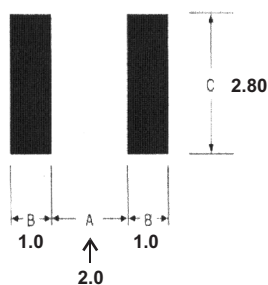


A= FSMD005-1210
B= FSMD010-1210
C= FSMD020-1210
D= FSMD035-1210
E= FSMD050-1210
F= FSMD075-1210

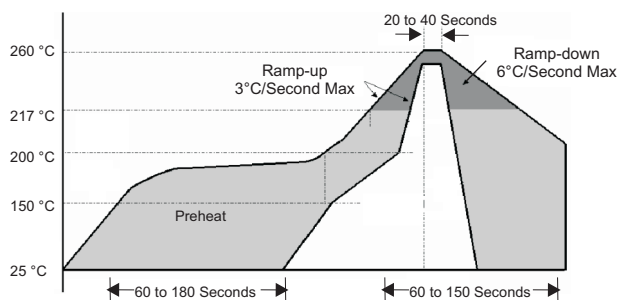
■ **PAD LAYOUTS, SOLDER REFLOW AND REWORK RECOMMENDATIONS**

The dimension in the table below provide the recommended pad layout for each FSMD1210 device

NOMINAL PAD DIMENSIONS (MILLIMETERS)



SOLDER REFLOW



Solder Reflow

Due to "Lead Free" nature, up to 40 seconds dwelling time for the soldering zone is strongly recommended.

1. Recommended reflow methods; IR, vapor phase oven, hot air oven.
2. The FSMD Series are suitable for use with wave-solder application methods. (Top side only)
3. Recommended maximum paste thickness is 0.25mm.
4. Devices can be cleaned by using standard industry methods and solvents.
5. Storage Environment: <30°C / 60%RH

Caution:

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

Rework:

Use standard industry practices.

NOTE: All Specification subject to change without notice.