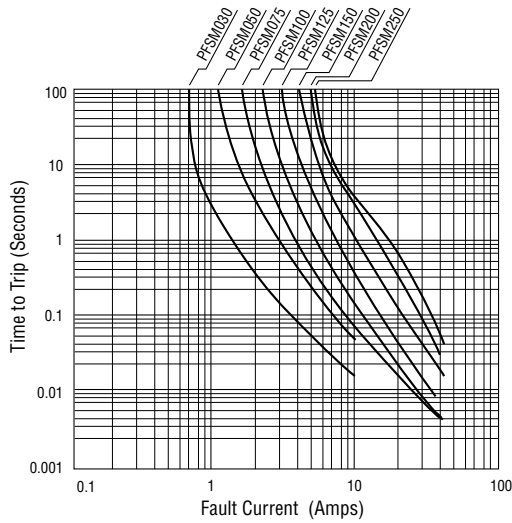


PFSM Polymeric PTC Resettable Fuse – Surface Mount



Typical Time to Trip at 23°C



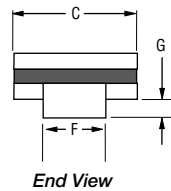
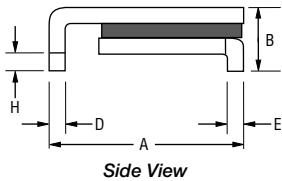
NEW



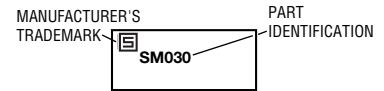
- Fully compatible with current industry standards
- Packaged per EIA 481-2 standard
- Applications: Almost anywhere there is a low voltage power supply and a load to be protected, including: computers & peripherals, general electronics, automotive applications

Approvals:

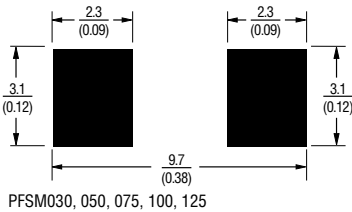
UL	recognition	File #E172175
CSA	acceptance	File #CA702083
TÜV	certification	File #R9872200



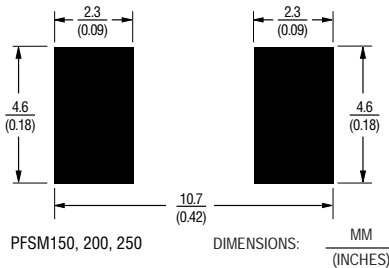
Typical Part Marking
Represents total content. Layout may vary.



Recommended Pad Layout



Recommended Pad Layout



Technical Data		
Operating/Storage Temperature	-40°C to +85°C	
Maximum Device Surface Temperature in Tripped State	125°C	
Passive Aging	+85°C, 1000 hours	±5% typical resistance change
Humidity Aging	+85°C, 85% R.H. 1000 hours	±5% typical resistance change
Thermal Shock	+125°C/-40°C 10 times	±10% typical resistance change
Mechanical Shock	MIL-STD-202, Method 213, Condition 1 (100g, 6 seconds)	No resistance change
Solvent Resistance	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-883C, Method 2007.1, Condition A	No change

Test Procedures And Requirements		
Test	Test Conditions	Accept/Reject Criteria
Visual/Mech.	Verify dimensions and materials	Per PF physical description
Resistance	In still air @ 23°C	Rmin ≤ R ≤ Rmax
Time to Trip	At specified current, Vmax, 23°C	T ≤ max. time to trip (seconds)
Hold Current	30 min. at Ihold	No trip
Trip Cycle Life	Vmax, Imax, 100 cycles	No arcing or burning
Trip Endurance	Vmax, 48 hours	No arcing or burning

PFSM Technical Data, continued



Electrical Characteristics

Model	I max. Amps	V max. Volts	I _{hold}	I _{trip}	Initial Resistance		1 Hour (R1) Post-Reflow Resistance	Max. Time To Trip at 23°C		Tripped Power Dissipation
			Amperes at 23°C		Ohms at 23°C		Ohms at 23°C	Amps	Seconds	Watts at 23°C
			Hold	Trip	Min.	Max.	Max.		Max.	Nom.
PFSM030.2	10	60	0.30	0.60	0.90	-	4.80	1.5	3.0	1.7
PFSM050.2	10	30	0.50	1.00	0.35	-	1.40	2.5	4.0	1.7
PFSM075.2	40	30	0.75	1.50	0.27	-	1.00	8.0	0.30	1.7
PFSM100.2	40	15	1.10	2.20	0.12	-	0.48	8.0	0.50	1.7
PFSM125.2	40	15	1.25	2.50	0.07	-	0.25	8.0	2.0	1.7
PFSM150.2	40	15	1.50	3.00	0.06	-	0.25	8.0	5.0	1.9
PFSM200.2	40	15	2.00	4.00	0.05	-	0.125	8.0	12.0	1.9
PFSM250.2	40	15	2.50	5.00	0.035	-	0.085	8.0	25.0	1.9

Packaging options:

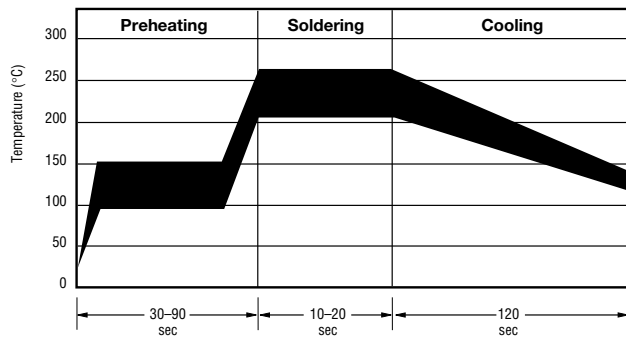
TAPE & REEL: PFSM.030 to PFSM.125 = 2000 pcs. per reel; PFSM.150 to PFSM.250 = 1500 pcs. per reel.

Product Dimensions

Model	A		B		C		D		E		F		G		H	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
PFSM030.2	6.73	7.98		3.18		5.44	0.56	0.71	0.56	0.71	2.16	2.41	0.66	1.37	0.43	
PFSM050.2	6.73	7.98		3.18		5.44	0.56	0.71	0.20	0.30	2.16	2.41	0.66	1.37	0.43	
PFSM075.2	6.73	7.98		3.18		5.44	0.56	0.71	0.56	0.71	2.16	2.41	0.66	1.37	0.43	
PFSM100.2	6.73	7.98		3.00		5.44	0.56	0.71	0.56	0.71	2.16	2.41	0.66	1.37	0.43	
PFSM125.2	6.73	7.98		3.00		5.44	0.56	0.71	0.56	0.71	2.16	2.41	0.66	1.37	0.43	
PFSM150.2	8.00	9.50		3.00		6.71	0.56	0.71	0.56	0.71	3.68	3.94	0.66	1.37	0.43	
PFSM200.2	8.00	9.50		3.00		6.71	0.56	0.71	0.56	0.71	3.68	3.94	0.66	1.37	0.43	
PFSM250.2	8.00	9.50		3.00		6.71	0.56	0.71	0.56	0.71	3.68	3.94	0.66	1.37	0.43	

DIMENSIONS = MM

Solder Reflow And Rework Recommendations



Solder reflow

- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Gluing the devices is not recommended.
- Recommended maximum paste thickness is 0.25 mm (.010 inch).
- Devices can be cleaned using standard industry methods and solvents.

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

Rework

- A device should not be reworked.

Thermal Derating Chart - I_{hold} (Amps)*

Model	Ambient Operating Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PFSM030.2	0.45	0.40	0.35	0.30	0.25	0.23	0.20	0.17	0.14
PFSM050.2	0.76	0.67	0.59	0.50	0.42	0.38	0.33	0.29	0.23
PFSM075.2	1.13	1.01	0.88	0.75	0.62	0.56	0.50	0.44	0.34
PFSM100.2	1.66	1.47	1.29	1.10	0.91	0.83	0.73	0.64	0.50
PFSM125.2	1.89	1.68	1.46	1.25	1.04	0.94	0.83	0.73	0.56
PFSM150.2	2.27	2.01	1.76	1.50	1.25	1.13	0.99	0.87	0.68
PFSM200.2	3.02	2.68	2.34	2.00	1.66	1.50	1.32	1.16	0.90
PFSM250.2	3.78	3.35	2.93	2.50	2.08	1.88	1.65	1.45	1.13

*I_{trip} = 2 • I_{hold}

How To Order

Product Designator: PF SM . 030 . 2

Style: _____

SM = Surface Mount Component

Hold Current, I_{hold}: _____
030-250 (0.30 Amps - 2.50 Amps)

Packaging Options: _____
Packaged per EIA 481-2
.2 = Tape and Reel

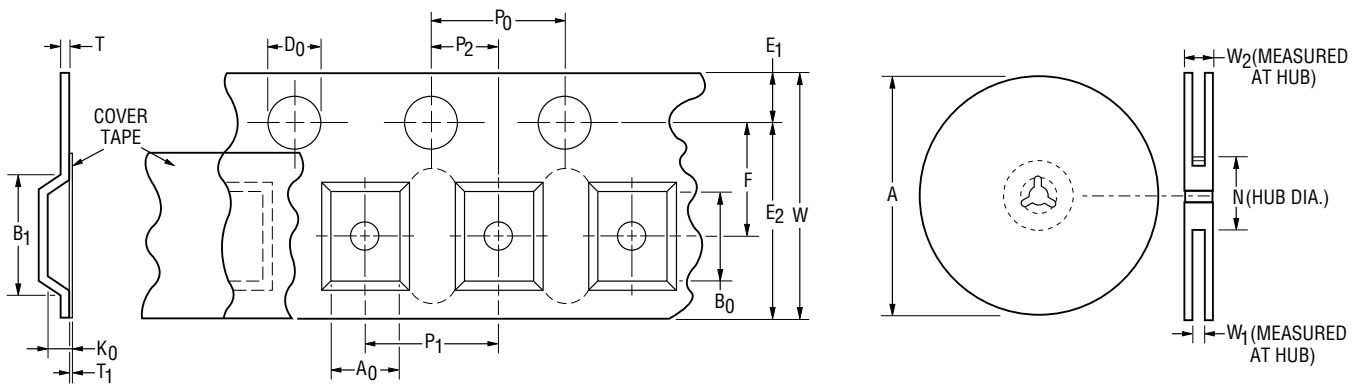
Schurter's resettable fuses cross to many like products already on the market. See our online cross list at www.schurterinc.com/cross.htm

PFSM Tape and Reel Specifications



Tape Dimension Identifiers	PFSM 030, 050, 075, 100, 125 per EIA-481-2	PFSM 150, 200, 250 per EIA 481-2
W	16 ± 0.3	16 ± 0.3
P ₀	4.0 ± 0.10	4.0 ± 0.10
P ₁	8.0 ± 0.10	12.0 ± 0.10
P ₂	2.0 ± 0.10	2.0 ± 0.10
A ₀	5.7 ± 0.10	6.9 ± 0.10
B ₀	8.1 ± 0.15	10.0 ± 0.10
B ₁ max.	9.1	11.0
D ₀	1.5 + 0.1/ - 0	1.5 + 0.1/ - 0
F	7.5 ± 0.10	7.5 ± 0.10
E ₁	1.75 ± 0.10	1.75 ± 0.10
E ₂ min.	14.25	14.25
T max.	0.4	0.4
T ₁ max.	0.1	0.1
K ₀	3.4 ± 0.15	3.5 ± 0.10
Leader min.	390	390
Trailer min.	160	160
Reel Dimension Identifiers		
A max.	360	360
N min.	50	50
W ₁	16.4 + 2.0/ - 0	16.4 + 2.0/ - 0
W ₂ max.	22.4	22.4

DIMENSIONS:



Specifications are subject to change without notice.