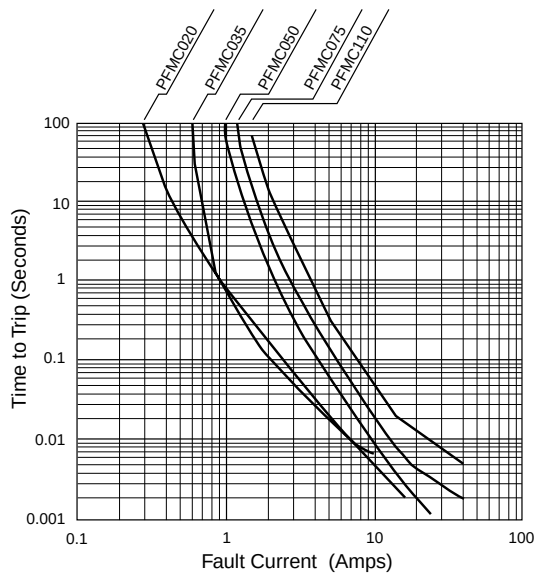


PFMC Polymeric PTC Resettable Fuse – Surface Mount



NEW



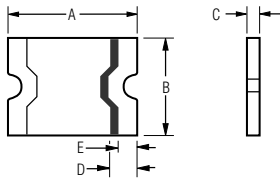
- Fully compatible with current industry standards
- Packaged per EIA 481-2 standard
- Applications: Almost anywhere there is a low voltage power supply and a load to be protected, including: computers & peripherals, general electronics, automotive applications

Approvals:

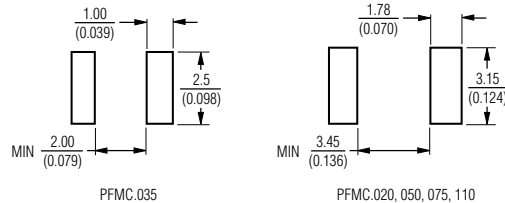
UL	recognition	File #E172175
CSA	acceptance	File #CA702083
TÜV	certification	File #R9872200

Not recommended for new designs. Refer to PFMD Series.

Dimensions

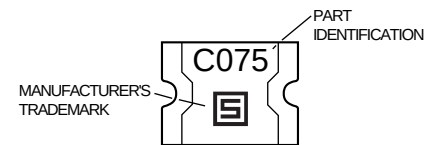


Solder Pad Layouts



Typical Part Marking

Represents total content. Layout may vary.



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	+85°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	$R_{min} \leq R \leq R_{max}$
Time to Trip	At specified current, V_{max} , 23°C	$T \leq \text{max. time to trip (seconds)}$
Hold Current	30 min. at I_{hold}	No trip
Trip Cycle Life	V_{max} , I_{max} , 100 cycles	No arcing or burning
Trip Endurance	V_{max} , 48 hours	No arcing or burning

PFMC 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.
PFMC.020.2	10	30	0.20	0.40	0.40	-	5.00	8.0	0.02	0.8
PFMC.035.2	40	6	0.35	0.70	0.32	-	1.30	8.0	0.10	0.6
PFMC.050.2	40	15	0.50	1.00	0.15	-	1.00	8.0	0.15	0.8
PFMC.075.2	40	13.2	0.75	1.50	0.11	-	0.45	8.0	0.20	0.8
PFMC.110.2	40	6	1.10	2.20	0.04	-	0.21	8.0	0.30	0.8

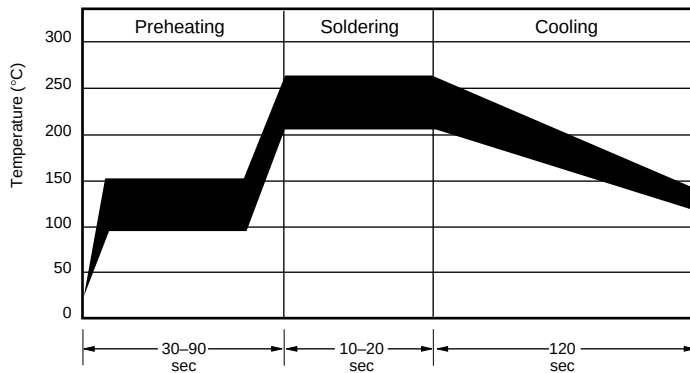
Packaging options:

TAPE & REEL: PFMC.035.2 = 3000 pcs per reel
All other models = 1500 pcs. per reel.

Product Dimensions

Model	A		B		C		D	E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Max.
PFMC.020.2	4.37	4.73	3.07	3.41	0.56	0.81	0.30	0.25	0.50
PFMC.035.2	3.00	3.43	2.35	2.80	0.38	0.62	0.35	0.25	0.50
PFMC.050.2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50
PFMC.075.2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50
PFMC.110.2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50

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)*

Part No.	Ambient Operating Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PFMC.020.2	0.29	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.10
PFMC.035.2	0.47	0.45	0.40	0.35	0.30	0.28	0.24	0.21	0.18
PFMC.050.2	0.77	0.68	0.59	0.50	0.44	0.40	0.37	0.33	0.29
PFMC.075.2	1.15	1.01	0.88	0.75	0.65	0.60	0.55	0.49	0.43
PFMC.110.2	1.59	1.43	1.26	1.10	0.95	0.87	0.80	0.71	0.60

*I_{trip} = 2 • I_{hold}

How to Order

P F M C . 0 2 0 . 2

Product Designator

Style

MC = 4.5mm SMD

Hold Current, I_{hold}

020-110 (0.20 Amps - 1.10 Amps)

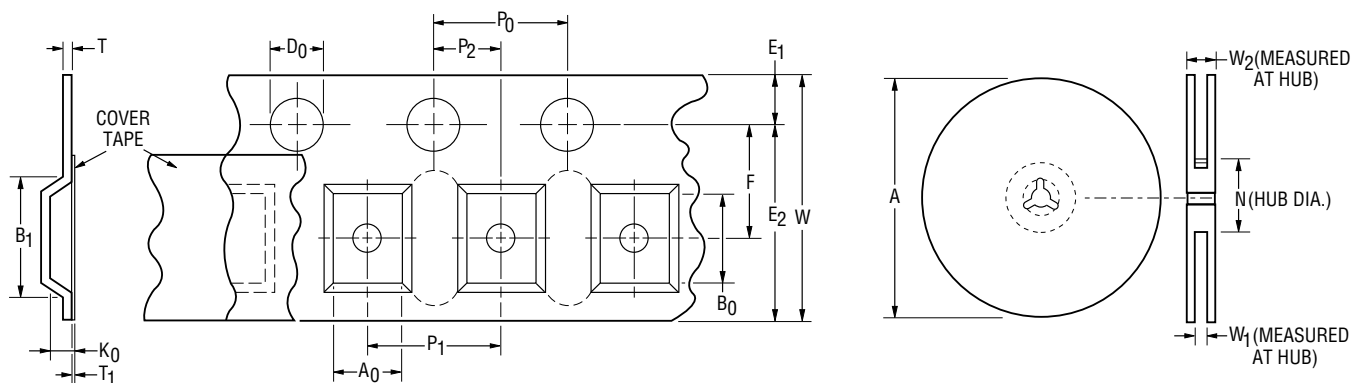
Packaging

.2 = 1,500 pcs. tape & 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

Tape Dimension Identifiers	PFMC 020, C050, C075, C110 per EIA-481-1	PFMC C035 per EIA 481-1
W	12 ± 0.3	8 ± 0.3
P ₀	4.0 ± 0.10	4.0 ± 0.10
P ₁	8.0 ± 0.10	4.0 ± 0.10
P ₂	2.0 ± 0.05	2.0 ± 0.05
A ₀	3.5 ± 0.23	2.8 ± 0.1
B ₀	5.1 ± 0.15	3.5 ± 0.1
B ₁ max.	5.9	4.35
D ₀	$1.5 + 0.1/-0$	$1.5 + 0.1/-0$
F	5.5 ± 0.05	3.5 ± 0.05
E ₁	1.75 ± 0.10	1.75 ± 0.10
E ₂ min.	10.25	6.25
T max.	0.6	0.6
T ₁ max.	0.1	0.1
K ₀	0.9 ± 0.15	1.1 ± 0.05
Leader min.	390	390
Trailer min.	160	160
Reel Dimension Identifiers		
A max.	185	185
N min.	50	50
W ₁	$12.4 + 2.0/-0$	$8.4 + 1.5/-0$
W ₂ max.	18.4	14.4

DIMENSIONS:



Specifications are subject to change without notice.