

NEW**SCHURTER****Features**

- Surface Mount Devices
- High voltage surge capabilities
- Binned and sorted resistance range
- Assists in complying with ITU K.20/K.21 specifications
- Withstands lightning power induction
- Agency recognition:

**Applications**

Used as a secondary overcurrent protection device in:

- Customer Premise Equipment (CPE)
- Central Office (CO)
- Subscriber Line Interface Cards (SLIC)

PFMT Series - Telecom PTC Resettable Fuses**Electrical Characteristics**

Model	Max. Oper. Voltage Volts	Max. Interrupt Ratings		Hold Current Amps at 23°C	Initial Resistance		One Hour Post-Trip Resistance Ohms at 23°C	Nom. Power Dissipation Watts at 650V, 23°C
		Volts (V)	Amps (A)		Ohms at 23°C	Ohms at 23°C		
		Max.	Max.		I _H	Max.		
PFMT.013.250.2	60	250	3.0	0.13	6.5	12.0	20.0	3.3
PFMT.013.250.A.2	60	250	3.0	0.13	6.5	9.0	20.0	3.3
PFMT.013.250.B.2	60	250	3.0	0.13	9.0	12.0	20.0	3.3
PFMT.013.250.C.2	60	250	3.0	0.13	7.0	10.0	20.0	3.3

Environmental Characteristics

Operating/Storage Temperature	-45°C to +85°C	
Maximum Device Surface Temperature in Tripped State	125°C	
Passive Aging	+85°C, 1000 hours	±2% typical resistance change
	+60°C, 1000 hours	±3% typical resistance change
Humidity Aging	+85°C, 85% R.H. 500 hours	±3% typical resistance change
Thermal Shock	MIL-STD-202F, Method 107G, +125°C to -55°C, 10 times	±10% typical resistance change
		±15% typical resistance change
Solvent Resistance	MIL-STD-202, Method 215B	No change
Lead Solderability	ANSI/J-STD-002	
Flammability	IEC 695-2-2	No Flame for 60 secs.
Vibration	MIL-STD-883C, Method 2007.1, Condition A	No change

Test Procedures And Requirements For Model PFMT Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech.	Verify dimensions and materials	Per MF 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
Solderability	MIL-STD-202F, Method 208F	95% min. coverage
UL File Number	E 174545S	
CSA File Number	CA 110338	
TUV File Number	R2057213	

Thermal Derating Chart - I_{hold} / I_{trip} (Amps)

Model	Ambient Operating Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PFMT.013.250.2	0.21 / 0.42	0.18 / 0.37	0.16 / 0.31	0.13 / 0.26	0.10 / 0.23	0.09 / 0.18	0.08 / 0.15	0.07 / 0.12	0.05 / 0.10
PFMT.013.250.A.2	0.21 / 0.42	0.18 / 0.37	0.16 / 0.31	0.13 / 0.26	0.10 / 0.23	0.09 / 0.18	0.08 / 0.15	0.07 / 0.12	0.05 / 0.10
PFMT.013.250.B.2	0.21 / 0.42	0.18 / 0.37	0.16 / 0.31	0.13 / 0.26	0.10 / 0.23	0.09 / 0.18	0.08 / 0.15	0.07 / 0.12	0.05 / 0.10
PFMT.013.250.C.2	0.21 / 0.42	0.18 / 0.37	0.16 / 0.31	0.13 / 0.26	0.10 / 0.23	0.09 / 0.18	0.08 / 0.15	0.07 / 0.12	0.05 / 0.10

Product Dimensions

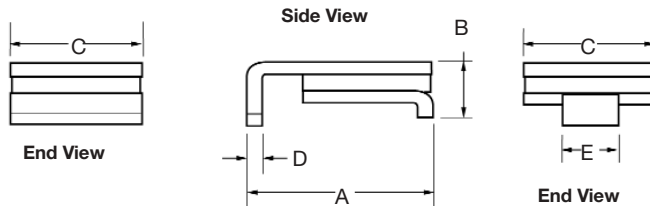
Model	A		B	C	D	E
	Min.	Max.	Max.	Min.	Nom.	Nom.
PFMT.013.250.2	8.5 (0.335)	9.4 (0.370)	3.4 (0.134)	7.4 (0.291)	0.3 (0.011)	3.75 (0.148)
PFMT.013.250.A.2	8.5 (0.335)	9.4 (0.370)	3.4 (0.134)	7.4 (0.291)	0.3 (0.011)	3.75 (0.148)
PFMT.013.250.B.2	8.5 (0.335)	9.4 (0.370)	3.4 (0.134)	7.4 (0.291)	0.3 (0.011)	3.75 (0.148)
PFMT.013.250.C.2	8.5 (0.335)	9.4 (0.370)	3.4 (0.134)	7.4 (0.291)	0.3 (0.011)	3.75 (0.148)

Packaging:

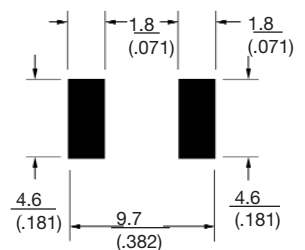
TAPE & REEL: 2000 pcs. per reel

DIMENSIONS = $\frac{\text{MM}}{(\text{INCHES})}$

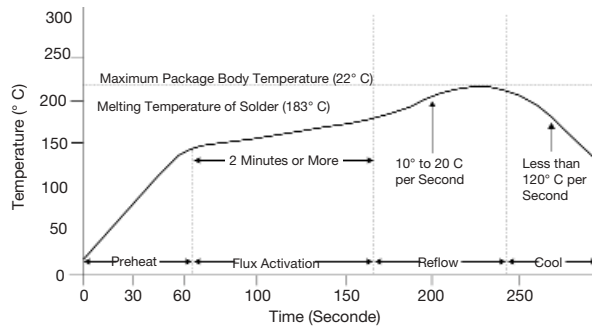
Recommended Pad Layout



Terminal material:
Tin-plated brass



Solder Reflow 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.

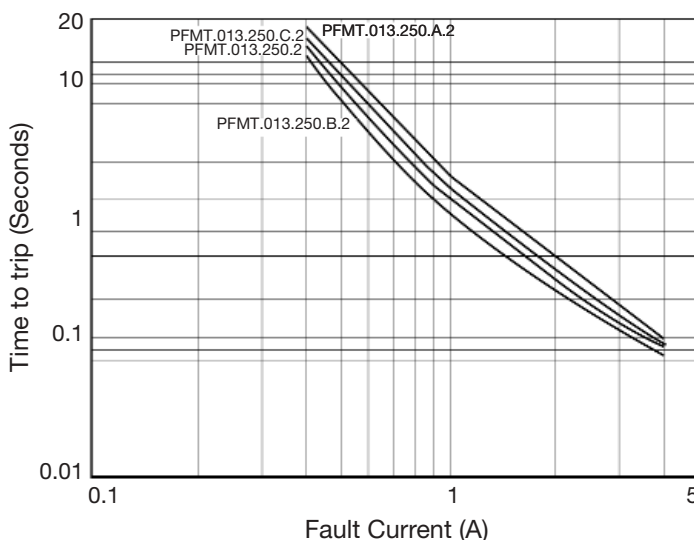
Note:

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

Rework

- A device should not be reworked.

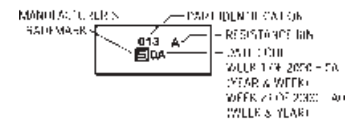
Typical Time to Trip at 23°C



NOTE: All parts are also available "binned".
All parts within a package will be within 0.5Ω of each other within the initial resistance range.

Typical Part Marking

Represents total content. Layout may vary.



How to Order

PF MT .013 .250 .x .x

PTC-Fuse

Series
MT = Surface Mount
Telecom Component

Hold Current, I_{hold}
013 (0.13 Amps)

Max. Interrupt Voltage
250 (250V)

Resistance Sorted
A = 6.5-9Ω
B = 9-12Ω
C = 7-10Ω

Packaging Options
2 = Tape and Reel*

Packaged per EIA486-B