

# FUSES

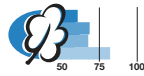
## Resettable fuses

# PFMU

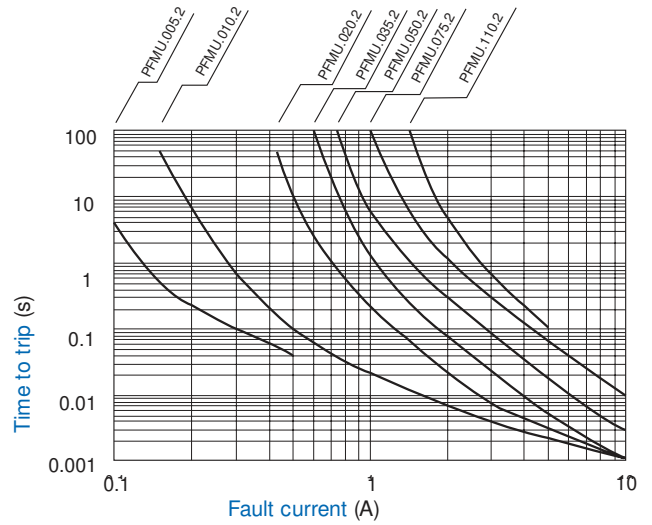
### Surface Mount PTC-Fuses Type PFMU

2,8 x 3,4 mm  
fast tripping  
Packaged per EIA 481-1

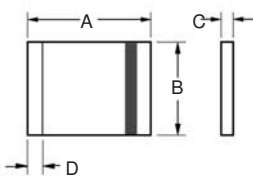
Agency recognition:  
UL, CSA, TÜV



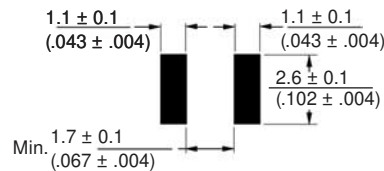
Typical Time to Trip at 23 °C



### Dimensions



### Solder pad layouts

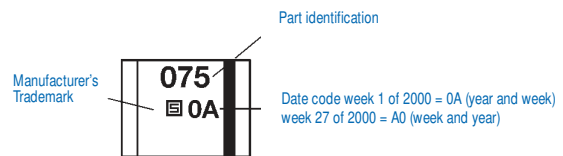


### Applications

- PC motherboards
- PC modems
- USB
- General electronics: Phones, fax machines, televisions, printers, video equipment, PDA

### Typical Part Marking

Layout may vary



### Environmental Characteristics

Operating/Storage Temperature	-40 °C to +85 °C	
Maximum Device Surface Temperature in Tripped State	125 °C	
Passive Aging	+85 °C, 1000 hours	± 5% typ. resist. change
Humidity Aging	+85 °C, 85% R.H. 1000 hours	± 10% typ. resist. change
Thermal Shock	+85 °C/-40 °C 20 times	± 10% typ. resist. 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 For Model PFMU 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	$T \leq \text{max. time to trip (sec.)}$
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

**Electrical Characteristics / Elektrische Daten**

Type	I <sub>max</sub> A	V <sub>max</sub> V	I <sub>hold</sub> Amperes at 23 °C	I <sub>trip</sub> Amperes at 23 °C	Initial Resistance Ohms at 23 °C		1 Hour (R1) Post-Reflow Resistance Ohms at 23 °C		Max. Time to trip at 23 °C/8A Amperes      Seconds		Tripped Power Dissipation Watts at 23 °C
					R <sub>min.</sub>	R <sub>1 max.</sub>	at 23 °C	at 23 °C			
					Hold	Trip					
PFMU.005.2	10	30	0.05	0.15	2.80	50.0	0.25	1.5			0.8
PFMU.010.2	10	30	0.10	0.30	0.80	15.0	0.5	0.6			0.8
PFMU.020.2	10	30	0.20	0.40	0.40	5.0	8.0	0.2			0.8
PFMU.035.2	40	6	0.35	0.75	0.20	1.30	8.0	0.2			1.0
PFMU.050.2	40	13.2	0.50	1.00	0.18	0.90	8.0	0.1			1.0
PFMU.075.2	40	6	0.75	1.50	0.07	0.45	8.0	0.1			1.2
PFMU.110.2	40	6	1.10	2.20	0.05	0.21	8.0	0.1			1.2

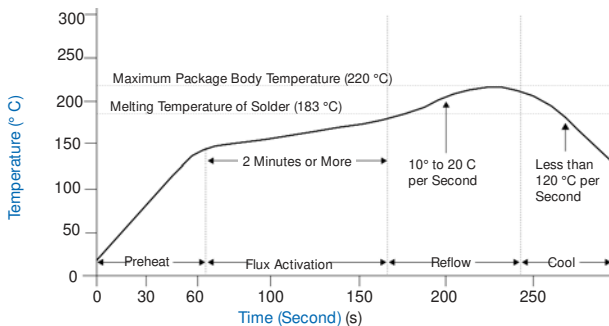
**Dimensions**

Model	A		B		C		D
	min.	max.	min.	max.	min.	max.	min.
PFMU.005.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)
PFMU.010.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)
PFMU.020.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)
PFMU.035.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)
PFMU.050.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.093)	2.80 (0.110)	0.38 (0.015)	0.62 (0.024)	0.30 (0.012)
PFMU.075.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)
PFMU.110.2	3.00 (0.118)	3.43 (0.135)	2.35 (0.092)	2.80 (0.110)	0.38 (0.015)	0.62 (0.025)	0.30 (0.012)

Packaging: 3000 pcs. per reel

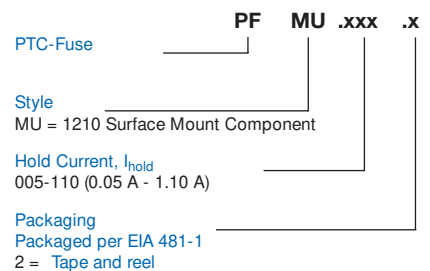
Dimensions in mm/inches

**Soldering Profile**



- Note
- PFMU models can be wave soldered and reworked.

**How To Order**



**Thermal Derating Chart-I<sub>hold</sub> (Amps)**

Type	Ambient Operating Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
PFMU.005.2	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02
PFMU.010.2	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04
PFMU.020.2	0.32	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.06
PFMU.035.2	0.47	0.45	0.40	0.35	0.33	0.28	0.24	0.21	0.18
PFMU.050.2	0.76	0.67	0.58	0.50	0.43	0.40	0.36	0.32	0.28
PFMU.075.2	1.00	0.97	0.86	0.75	0.64	0.59	0.54	0.48	0.40
PFMU.110.2	1.60	1.42	1.26	1.10	0.94	0.86	0.80	0.70	0.58