

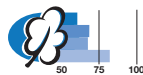
# FUSES

## Resettable fuses

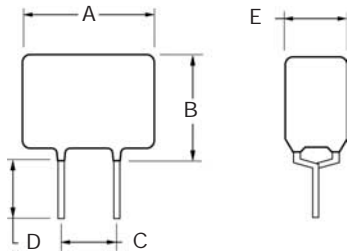
# PFRT

### Wire leaded PTC-Fuses Type PFRT

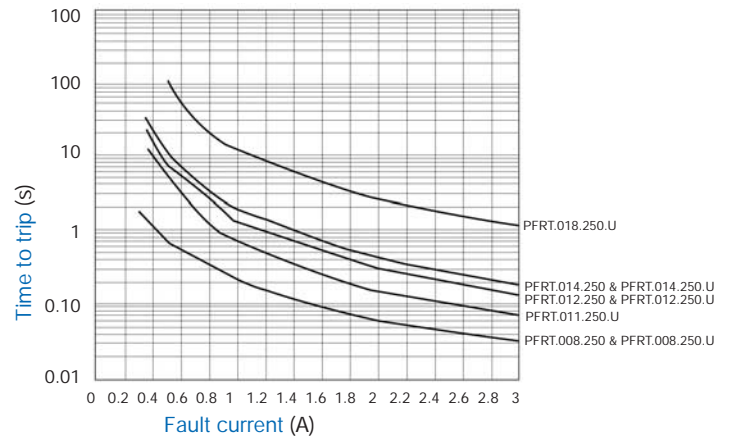
High voltage surge capabilities  
Compliance to ITU K.20/K.21 specifications  
Agency recognition: UL, CSA, TÜV



#### Dimensions

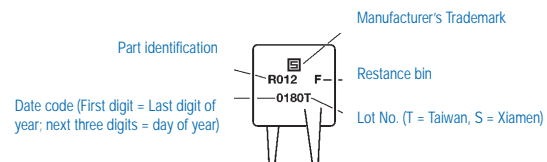


### Typical Time to Trip at 23 °C



### Typical Part Marking

Layout may vary



### Applications

- Used as a secondary overcurrent protection device in:
- Customer Premise Equipment (CPE)
  - Central Office (CO)
  - Subscriber Line Interface Cards (SLIC)

### 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% typ. resist. change
	+60 °C, 1000 hours	± 3% typ. resist. change
Humidity Aging	+85 °C, 85% R.H. 500 hours	± 3% typ. resist. change
Thermal Shock	MIL-STD-202F, Method 107G	±10% typ. resist. change
	+125 °C/-55 °C, 10 times	±15% typ. resist. change
Solvent Resistance	MIL-STD-202, Method 215B	No change
Lead Solerability	ANSI/J-STD-002	
Flammability	IEC 695-2-2	No Flame for 60 sec.
Vibration	MIL-STD-883C, Method 2007.1, Condition A	No change

### Test Procedures And Requirements For Model PFRT 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	5 times $I_{hold}$ , $V_{max}$ 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**

Type	Max. Oper. Voltage	Max. Interrupt Ratings		Hold Current	Initial Resistance		One Hour Post-Trip Resistance
	Volts	Volts max.	Amps max.	Amps at $I_h$ 23 °C	Ohms at 23 °C min.	Ohms at 23 °C max.	Ohms at 23 °C
PFRT.008.250.U	60	250	3.0	0.08	14.0	20.0	33.0
PFRT.008.250	60	250	3.0	0.08	15.0	22.0	33.0
PFRT.011.250.U	60	250	3.0	0.11	5.0	9.0	16.0
PFRT.012.250	60	250	3.0	0.12	4.0	8.0	16.0
PFRT.012.250.U	60	250	3.0	0.12	6.0	10.0	16.0
PFRT.014.250	60	250	3.0	0.14	3.0	6.0	12.0
PFRT.014.250.U	60	250	3.0	0.14	3.5	6.5	12.0
PFRT.018.250.U	60	250	10.0	0.18	0.8	2.0	4.0

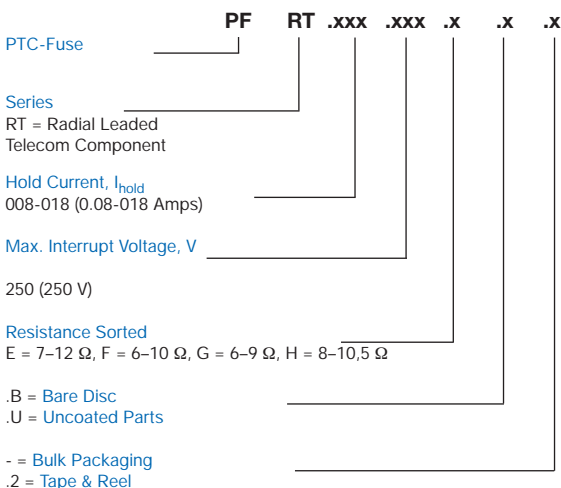
**Dimensions**

Type	A		B	C	D	E	Physical Characteristics		
	max.	max.	max.	nom.	nom.	Style	Lead Dia.	Material	
PFRT.008.250.U	4.8 (0.189)	9.1 (0.358)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.008.250	5.3 (0.209)	9.3 (0.366)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.011.250.U	5.3 (0.209)	9.4 (0.370)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.012.250	6.5 (0.256)	11.0 (0.433)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.012.250.U	6.0 (0.236)	10.0 (0.394)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.014.250	6.5 (0.256)	11.0 (0.433)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.014.250.U	6.0 (0.236)	10.0 (0.394)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	
PFRT.018.250.U	6.0 (0.236)	10.0 (0.394)	5.1 ± 0.7 (0.201 ± 0.028)	4.7 (0.185)	5.0 (0.197)	1	0.65 (0.026)	Sn/Cu	

Packaging options: Bulk: 500 pcs. per bag, Tape and reel: 3000 pcs. per reel

Dimensions in mm/inches

**How To Order**



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

Type	Ambient Operating Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
PFRT.008.250	0.124	0.110	0.095	0.080	0.066	0.059	0.051	0.044	0.033
PFRT.011.250	0.171	0.151	0.131	0.110	0.091	0.081	0.071	0.061	0.046
PFRT.012.250	0.186	0.165	0.143	0.120	0.099	0.088	0.077	0.066	0.050
PFRT.014.250	0.255	0.199	0.172	0.145	0.119	0.106	0.091	0.080	0.060
PFRT.018.250	0.269	0.240	0.211	0.180	0.153	0.138	0.123	0.109	0.087