PROSEMI
Circuit Protection

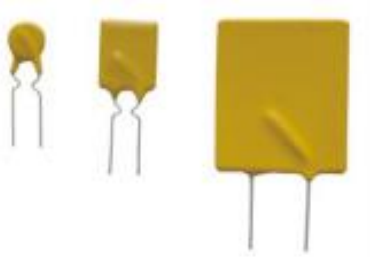
Radial Leaded | Round/Square size

Polymer Positive Temperature Coefficient Thermistor

PU30 Series

Features

- Low voltage over-current protection
- Working current: 0.5A-9.0A
- Impulse voltage: 30V
- In line with RoHs certification, halogen-free product
- Tinned copper clad steel wire(0.5~1.85A)/ Tinned Copper wire(2.5~9A)



RoHS 2002/95/EC

HALOGEN HF FREE

Electrical Performance

Part Number	I_H (A)	I_T (A)	V_{max} (V)	I_{max} (A)	Time to Trip (A)	Time to Trip (Sec)	Pd_{typ} (W)	R_{min} (Ω)	$R1_{max}$ (Ω)
PU30-050	0.50	1.00	30	40	2.50	10.0	1.0	0.290	1.100
PU30-070	0.70	1.40	30	40	3.50	10.0	1.0	0.140	0.450
PU30-075	0.75	1.50	30	40	3.75	10.0	1.0	0.120	0.400
PU30-090	0.90	2.00	30	40	4.50	10.0	1.0	0.070	0.180
PU30-100	1.00	2.00	30	40	5.00	10.0	1.0	0.065	0.240
PU30-110	1.10	2.50	30	40	5.50	10.0	1.0	0.050	0.150
PU30-135	1.35	2.70	30	40	6.75	10.0	1.0	0.040	0.120
PU30-160	1.60	3.20	30	40	8.00	10.0	1.0	0.030	0.105
PU30-185	1.85	3.70	30	40	9.25	10.0	1.0	0.030	0.090
PU30-250	2.50	5.50	30	40	12.5	10.3	1.2	0.020	0.060
PU30-300	3.00	6.00	30	40	15.0	10.8	2.0	0.020	0.075
PU30-400	4.00	8.00	30	40	20.0	12.7	2.5	0.010	0.045
PU30-500	5.00	10.00	30	40	25.0	14.5	3.0	0.010	0.045
PU30-600	6.00	12.00	30	40	30.0	16.0	3.5	0.005	0.030
PU30-700	7.00	14.00	30	40	35.0	17.5	3.8	0.005	0.030
PU30-800	8.00	16.00	30	40	40.0	18.8	4.0	0.005	0.030
PU30-900	9.00	18.00	30	40	40.0	20.0	4.2	0.005	0.015

I_H = Hold current: maximum current at which the device will not trip at 23℃ still air.
I_T = Trip current: minimum current at which the device will always trip at 23℃ still air.
V_{max} = Maximum continuous voltage device can withstand without damage at rated current
I_{max} = Maximum fault current device can withstand without damage at rated voltage.

T_{trip} = Maximum time to trip(s) at assigned current.
Pd_{typ} =Typical power dissipation: typical amount of power dissipated by the device when in state air environment.
R_{min} = Minimum resistance of device in initial (un-soldered) state.
$R1_{max}$ = Maximum resistance of device at 23℃ measured one hour after reflow.

Noted: All electrical function test is conducted after PCB mounted.

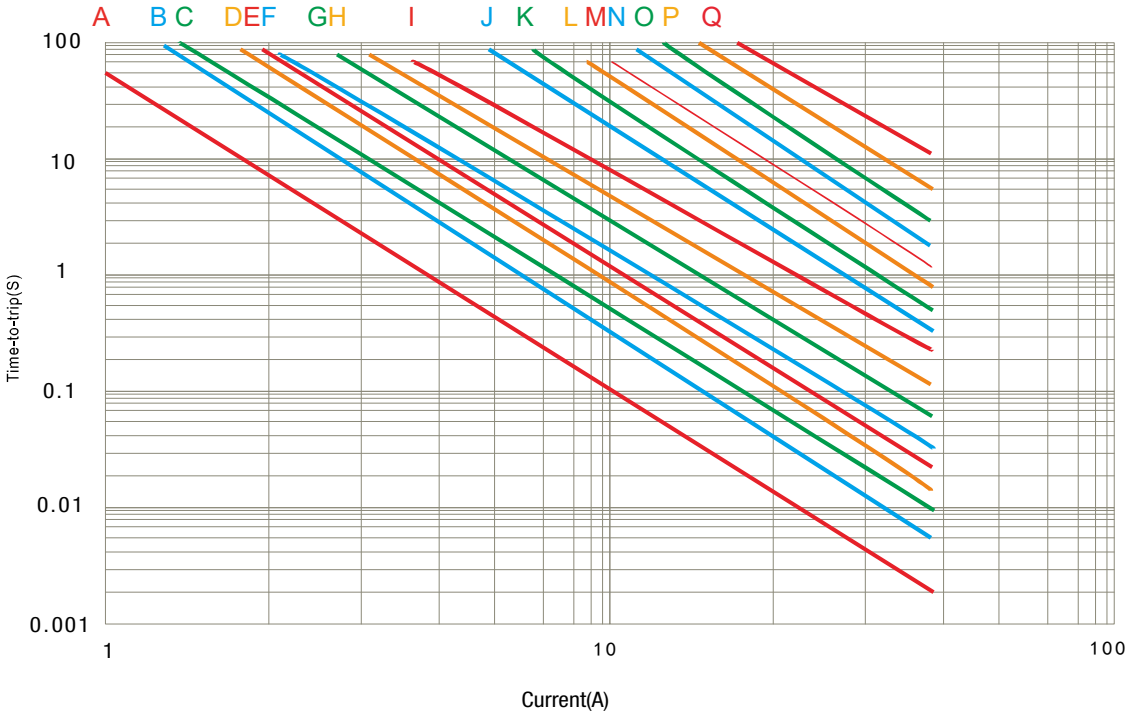
Polymer Positive Temperature Coefficient PU30 Series

Thermal Derating Chart Hold Current (A)

Part Number	Ambient Operating Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PU30-050	0.725	0.650	0.575	0.500	0.420	0.380	0.350	0.305	0.250
PU30-070	1.015	0.910	0.805	0.700	0.588	0.532	0.490	0.427	0.350
PU30-075	1.088	0.975	0.863	0.750	0.630	0.570	0.525	0.458	0.375
PU30-090	1.305	1.170	1.035	0.900	0.756	0.684	0.630	0.549	0.450
PU30-100	1.450	1.300	1.150	1.000	0.840	0.760	0.700	0.610	0.500
PU30-110	1.595	1.430	1.265	1.100	0.924	0.836	0.770	0.671	0.550
PU30-135	1.958	1.755	1.553	1.350	1.134	1.026	0.945	0.824	0.675
PU30-160	2.320	2.080	1.840	1.600	1.344	1.216	1.120	0.976	0.800
PU30-185	2.683	2.405	2.128	1.850	1.554	1.406	1.295	1.129	0.925
PU30-250	3.625	3.250	2.875	2.500	2.100	1.900	1.750	1.525	1.250
PU30-300	4.350	3.900	3.450	3.000	2.520	2.228	2.100	1.830	1.500
PU30-400	5.800	5.200	4.600	4.000	3.360	3.040	2.800	2.440	2.000
PU30-500	7.250	6.500	5.750	5.000	4.200	3.800	3.500	3.050	2.500
PU30-600	8.700	7.800	6.900	6.000	5.040	4.560	4.200	3.660	3.000
PU30-700	10.15	9.100	8.050	7.000	5.580	5.320	4.900	4.270	3.500
PU30-800	11.60	10.40	9.200	8.000	6.720	6.080	5.600	4.880	4.000
PU30-900	13.05	11.70	10.35	9.000	7.560	6.840	6.300	5.490	4.500

Typical time to trip at 23°C

A =PU30-050
B =PU30-070
C =PU30-075
D =PU30-090
E =PU30-100
F =PU30-110
G =PU30-135
H =PU30-160
I =PU30-185
J =PU30-250
K =PU30-300
L =PU30-400
M =PU30-500
N =PU30-600
O =PU30-700
P =PU30-800
Q =PU30-900



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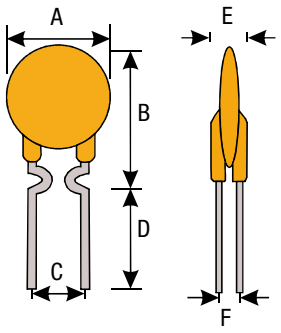

Fig 1

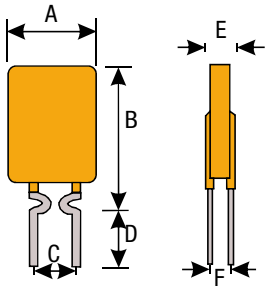

Fig 2

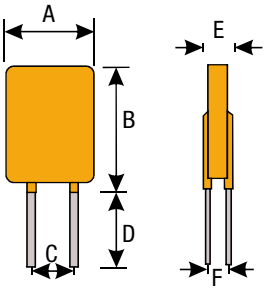

Fig 3

Size(mm)

Product model	A	B	C	D	E	F	Lead	FIG	Package Qty
	max	max	typ	min	max	typ	Φ		
PU30-050	7.4	14.0	5.1	7.6	3.0	1.0	0.50	1	1000pcs
PU30-070	7.4	15.0	5.1	7.6	3.0	1.0	0.50	2	1000pcs
PU30-075	7.4	15.0	5.1	7.6	3.0	1.0	0.50	2	1000pcs
PU30-090	7.4	16.5	5.1	7.6	3.0	1.0	0.50	2	1000pcs
PU30-100	7.4	16.5	5.1	7.6	3.0	1.0	0.50	2	1000pcs
PU30-110	7.4	16.5	5.1	7.6	3.0	1.0	0.50	2	1000pcs
PU30-135	8.9	15.5	5.1	7.6	3.0	1.1	0.60	2	1000pcs
PU30-160	8.9	17.3	5.1	7.6	3.0	1.1	0.60	2	1000pcs
PU30-185	10.2	18.2	5.1	7.6	3.0	1.1	0.60	2	1000pcs
PU30-250	11.4	20.4	5.1	7.6	3.0	1.1	0.60	2	500pcs
PU30-300	11.4	17.3	5.1	7.6	3.0	1.3	0.80	3	500pcs
PU30-400	14.0	20.2	5.1	7.6	3.0	1.3	0.80	3	500pcs
PU30-500	14.0	25.0	10.2	7.6	3.0	1.3	0.80	3	300pcs
PU30-600	16.5	25.1	10.2	7.6	3.0	1.3	0.80	3	300pcs
PU30-700	19.1	27.8	10.2	7.6	3.0	1.3	0.80	3	200pcs
PU30-800	21.6	29.9	10.2	7.6	3.0	1.3	0.80	3	200pcs
PU30-900	25.5	29.9	10.2	7.6	3.0	1.3	0.80	3	100pcs

Regular Service Condition

1. Operating ambient temperature:-40℃～85℃.
2. Exceeding the applicable conditions of this product or other improper use may cause damage, or even cause electric breakdown or flame.
3. PPTC components are designed for occasional over-current in the circuit and are not recommended for continuous and continuous over-current circuits.
4. Avoid contact of PPTC components with chemical solvents. Prolonged contact will damage the performance of the components.