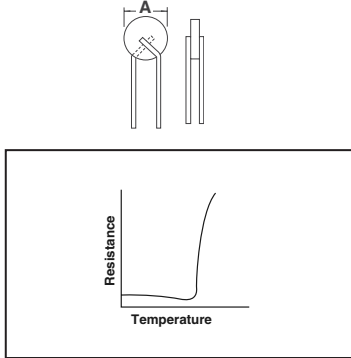


## PTC Thermistors

PTC (Positive Temperature Coefficient) Thermistors are thermally sensitive resistors made of polycrystalline ceramic materials. They are characterized by an extremely large resistance change in a small temperature span.

- All PTC resistances  $\pm 30\%$  at 25°C
- Tolerance on transition temperature is  $\pm 7^\circ\text{C}$



Oper. Volt.	R @ 25°C (Ω)	Transition Temperature	D.C.†	Dimension A (mm)	Digi-Key Part No.	Price Each		
						1	10	100
12	2	120°C	14.0	15.24	235-1130-ND	2.75	2.48	1.95
12	10	110°C	7.0	8.89	235-1131-ND	1.35	1.22	.96
12	25	110°C	7.0	8.89	235-1132-ND♦	1.35	1.22	.96
25	50	30°C	7.0	7.62	235-1120-ND*	1.35	1.22	.96
25	50	40°C	7.0	7.62	235-1121-ND♦*	1.35	1.22	.96
25	50	50°C	7.0	7.62	235-1122-ND♦*	1.35	1.22	.96
25	50	60°C	7.0	7.62	235-1123-ND♦*	1.35	1.22	.96
25	50	70°C	7.0	8.89	235-1124-ND♦	1.35	1.22	.96
25	50	80°C	7.0	8.89	235-1125-ND♦	1.35	1.22	.96
25	50	90°C	7.0	8.89	235-1126-ND♦	1.35	1.22	.96
25	50	100°C	7.0	7.62	235-1127-ND♦*	1.35	1.22	.96
25	50	110°C	7.0	7.62	235-1128-ND♦*	1.35	1.22	.96
50	5	65°C	14.0	15.24	235-1133-ND	2.75	2.48	1.95
50	10	110°C	10.0	11.43	235-1134-ND♦	1.82	1.63	1.29
50	50	110°C	12.0	11.43	235-1135-ND	2.29	2.06	1.62
50	200	110°C	9.0	10.16	235-1136-ND	1.82	1.63	1.29
120	10	120°C	20.0	20.32	235-1137-ND♦	3.29	2.96	2.33
120	20	120°C	18.0	16.51	235-1138-ND♦	2.56	2.31	1.82
120	25	60°C	15.0	15.24	235-1139-ND♦	2.56	2.31	1.82
120	50	120°C	12.0	12.70	235-1140-ND♦	2.29	2.06	1.62
240	50	65°C	17.0	15.24	235-1142-ND	2.82	2.53	2.00
240	50	110°C	18.0	16.51	235-1143-ND♦	2.82	2.53	2.00
240	100	120°C	18.0	16.51	235-1144-ND♦	2.82	2.53	2.00
240	1,500	100°C	12.0	8.89	235-1145-ND♦	2.50	2.23	1.75
480	1,000	100°C	18.0	19.05	235-1146-ND	3.29	2.96	2.33
480	2,000	100°C	15.0	13.97	235-1147-ND	2.75	2.48	1.95
480	5,000	100°C	12.0	8.89	235-1148-ND♦	1.82	1.63	1.29

♦ RoHS Compliant † D.C. – Dissipation Constant (MW/°C)

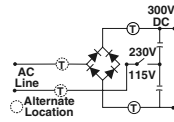
\* KCPTC1-KIT-ND Digi-Key® PTC Thermistors Kits

2 each of all values denoted (12 total pieces). Notebook style storage case and bin storage guide included ..... 17.55

## Inrush Current Limiters

**SPECIFICATIONS:** • Inrush Current Limiters protect against high peak inrush current, especially in AC/DC switching power supplies • All resistances  $\pm 25\%$  @ 25°C • All parts insulated with a protective coating

Resistance under load is for reference only. Actual values may vary due to ambient temperature, air flow, or mounting conditions.



No Load Res. @ 25°C (Ω)	Maximum* Steady State Current (Amps)	Approximately Res. @ I Max. (Ω)	Diameter (mm)	Digi-Key Part No.	Price Each		
					1	10	100
0.7	12.0	.02	19.56	KC022L-ND♦	3.09	2.78	2.19
1.3	8.0	.04	13.97	KC023L-ND♦	2.02	1.82	1.43
2.5	8.0	.06	19.56	KC003L-ND♦	1.70	1.53	1.21
5.0	6.0	.11	19.56	KC004L-ND♦	1.70	1.53	1.21
7.0	5.0	.16	19.56	KC005L-ND♦	1.70	1.53	1.21
10.0	5.0	.18	19.56	KC006L-ND♦	1.70	1.53	1.21
16.0	4.0	.27	19.56	KC007L-ND♦	1.70	1.53	1.21
47.0	3.0	.49	19.56	KC008L-ND♦	1.70	1.53	1.21
120.0	2.0	1.18	23.62	KC009L-ND♦	1.97	1.78	1.40
0.5	16.0	.02	23.62	KC024L-ND♦	3.93	3.54	2.79
10.0	3.2	.18	10.16	KC011L-ND	1.50	1.35	1.06
10.0	1.7	.34	10.16	KC012L-ND	1.50	1.35	1.06
50.0	1.6	.75	11.43	KC013L-ND♦	1.50	1.35	1.06
50.0	1.1	.89	11.43	KC014L-ND♦	1.50	1.35	1.06
5.0	4.7	.11	13.97	KC015L-ND♦	1.52	1.38	1.09
5.0	2.8	.20	13.97	KC016L-ND♦	1.52	1.38	1.09
16.0	2.7	.33	13.97	KC017L-ND♦	1.52	1.38	1.09
16.0	1.7	.49	13.97	KC018L-ND♦	1.52	1.38	1.09
25.0	2.4	.41	13.97	KC019L-ND♦	1.52	1.38	1.09
25.0	1.7	.49	13.97	KC020L-ND♦	1.52	1.38	1.09
30.0	1.5	.60	10.16	KC021L-ND♦	1.50	1.35	1.06

♦ RoHS Compliant \* These values are suggested maximums based upon 25°C ambient, no air flow environment with the thermistor mounted 1/2" from circuit board.

## PTC Resettable Fuses

- Telephone line fault protection
- Over-current protection for transformers
- Locked rotor protection for FHP motors

Minimum Limit Current: The minimum amount of current required by the PTC to guarantee switching at the minimum ambient temperatures.

Maximum Limit Current: The maximum amount of current the PTC must be able to pass without switching at the maximum ambient temperature.



Oper. Volt. @ 25°C	No Ld. Res. (Ω)	Dim. A (mm)	Min. Switch Current 0°C 25°C	Max. No-Switch Current 25°C 55°C	Digi-Key Part No.	Price Each			GE Sensing Part No.
						1	10	100	
12	1	15.24	1.45 1.29	0.87 0.64	235-1149-ND♦	1.66	1.49	1.18	RL5305-1-110-12-PTF
	2.5	15.24	0.92 0.82	0.55 0.40	235-1160-ND	1.88	1.70	1.34	RL5305-2.5-110-12-PTF
	5	11.43	0.55 0.49	0.33 0.24	235-1150-ND♦	1.67	1.51	1.19	RL4005-5-110-12-PTF
	10	8.89	0.32 0.30	0.19 0.14	235-1151-ND♦	1.39	1.26	.99	RL3005-10-110-12-PTF
	25	8.89	0.20 0.19	0.12 0.09	235-1159-ND	1.39	1.26	.99	RL3005-25-110-12-PTF
25	1.5	19.05	1.34 1.19	0.81 0.59	235-1161-ND♦	3.29	2.96	2.33	RL7008-1.5-110-25-PTF
	3.0	13.97	0.84 0.74	0.50 0.37	235-1162-ND♦	2.09	1.89	1.49	RL5008-3.0-110-25-PTF
50	5.0	15.24	0.65 0.58	0.39 0.29	235-1152-ND♦	1.88	1.69	1.34	RL5506-5-110-50-PTF
	10	11.43	0.39 0.34	0.23 0.17	235-1153-ND♦	1.88	1.70	1.34	RL4006-10-110-50-PTF
	25	12.70	0.27 0.24	0.16 0.12	235-1163-ND♦	2.09	1.89	1.49	RL4508-25-110-50-PTF
	50	11.43	0.19 0.17	0.11 0.08	235-1158-ND	1.88	1.70	1.34	RL4010-50-110-12-PTF
	100	10.67	0.13 0.12	0.08 0.06	235-1154-ND♦	1.57	1.42	1.12	RL3810-100-110-50-PTF
120	10	20.32	0.55 0.49	0.33 0.24	235-1155-ND♦	3.43	3.08	2.43	RL7510-10-110-120-PTF
	20	16.51	0.37 0.33	0.22 0.16	235-1164-ND	1.88	1.70	1.34	RL6010-20-110-120-PTF
	50	12.70	0.19 0.17	0.11 0.08	235-1156-ND♦	2.09	1.89	1.49	RL4510-50-110-120-PTF
	100	10.16	0.13 0.11	0.08 0.06	235-1157-ND	1.57	1.42	1.12	RL3510-100-110-120-PTF
240	50	16.51	0.23 0.21	0.14 0.10	235-1165-ND♦	3.43	3.08	2.43	RL6315-50-110-240-PTF
	100	16.51	0.16 0.15	0.10 0.07	235-1166-ND♦	3.43	3.08	2.43	RL6315-100-110-240-PTF
	250	16.51	0.10 0.09	0.06 0.05	235-1167-ND♦	3.43	3.08	2.43	RL6315-250-110-240-PTF

♦ RoHS Compliant

## PTC Thermistors YM120 Series

This range of PTC thermistors is designed to operate at main voltages and is intended for general purpose usage in over-current, over-voltage and direct over-temperature protection.

Each device in the range consists of a disc of barium titanate thermistor material with silvered faces and solder coated copper lead wires. A painted finish is applied which is not intended to confer insulating properties.



R25	Resistance at 25°C
20%	Tolerance on Resistance at 25°C
I <sub>nt</sub> (25°C)	Current which will not trip thermistor (25°C ambient)
I <sub>t</sub> (25°C)	Current which will trip thermistor (25°C ambient)
I <sub>nt</sub> (55°C)	Current which will not trip thermistor (55°C ambient)
I <sub>t</sub> (10°C)	Current which will trip thermistor (10°C ambient)
I <sub>mo</sub>	Maximum Overload Current at 265V rms (10° ambient)
V Max.	Maximum Voltage Vrms
D Max.	Maximum Disc Diameter
T Max.	Maximum Overall Thickness

Res. @ 25°C Ω	Electrical Specifications				Dim. A Max.	Digi-Key Part No.	Price Each			GE Sensing Part No.		
	I <sub>nt</sub> (25°C) mA	I <sub>t</sub> (25°C) mA	I <sub>nt</sub> (55°C) mA	I <sub>t</sub> (10°C) mA			1	10	100			
1800	16	23	12	25	0.1	265	4.0mm	235-1072-ND	2.18	1.91	1.48	YM120C15N182
1200	20	28	16	31	0.1	265	4.0mm	235-1073-ND	2.18	1.91	1.48	YM120C20N122
600	28	40	22	44	0.2	265	4.0mm	235-1074-ND	2.18	1.91	1.48	YM120C30N601
300	39	55	30	60	0.2	265	4.0mm	235-1075-ND	2.18	1.91	1.48	YM120C45N301
150	57	80	44	88	0.2	265	4.0mm	235-1076-ND	2.18	1.91	1.48	YM120C60N151
100	70	98	54	108	0.4	265	4.5mm	235-1077-ND	1.31	1.15	.90	YM120C80N101
60	93	131	72	144	0.6	265	6.0mm	235-1078-ND	1.31	1.15	.90	YM120D105N600
45	110	155	85	170	0.7	265	7.0mm	235-1079-ND	1.31	1.15	.90	YM120D125N450
33	128	181	99	198	0.9	265	7.5mm	235-1080-ND	1.87	1.64	1.28	YM120D150N330
20	192	265	149	298	1.3	265	9.5mm	235-1082-ND	1.87	1.64	1.28	YM120D200N200
15	234	330	181	362	1.7	265	11.5mm	235-1083-ND	2.61	2.28	1.77	YM120D260N150
10	314	444	243	486	2.7	265	14.0mm	235-1084-ND	3.77	3.30	2.56	YM120D370N100
6	407	575	315	630	3.9	265	16.5mm	235-1085-ND	4.63	4.06	3.15	YM120D480N060

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