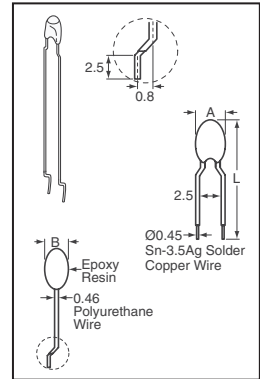


NTSD1 Series - NTC Thermistors for Temperature Sensing



Features: • Electric insulation on lead wire • Excellent bending resistance and easy handling due to suitable hardness of surface coating • High-accuracy of ±1% of resistance and B-Constant tolerance are realized due to uniform thickness by the precise sheet forming method **Specifications:** • Thermal Time Constant (25°C): 7 seconds • Operating Temperature Range: -40°C - 125°C

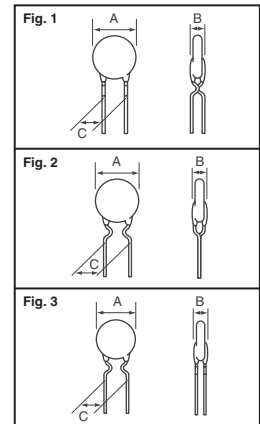
Resistance 25°C (kΩ) ±1%	B-Constant 25-50°C (k) ±1%	Permissible Operating Current 25°C (mA)	Rated Electric Power 25°C (mW)	Typical Dissipation Constant 25°C (mW/°C)	Dimensions - mm			Digi-Key Part No.	Pricing			Murata Part No.
					A	B	L		1	10	100	
2.0	3500	1.05	21	2.1	3.8	2.5	30	490-4651-ND	.41	2.49	18.83	NTSD1XM202FPB30
5.0	3700	0.68	15	2.1	3.0	2.0	30	490-4652-ND	.40	2.43	18.39	NTSD1XR502FPB30
10	3380	0.38	15	1.5	3.0	2.0	30	490-4653-ND	.41	2.49	18.83	NTSD1XH103FPB30
20	4050	0.31	21	2.1	3.8	2.5	30	490-4654-ND	.43	2.61	19.75	NTSD1WB203FPB30
30	4100	0.26	21	2.1	3.8	2.5	30	490-4655-ND	.44	2.73	20.61	NTSD1WC303FPB30
50	4150	0.20	21	2.1	3.0	2.0	30	490-4656-ND	.40	2.43	18.39	NTSD1WD503FPB30
100	4250	0.14	21	2.1	3.0	2.0	30	490-4657-ND	.40	2.43	18.39	NTSD1WF104FPB30
2.0	3500	1.05	21	2.1	3.8	2.5	40	490-4658-ND	.38	2.32	17.47	NTSD1XM202FPB40
5.0	3700	0.68	21	2.1	3.0	2.0	40	490-4659-ND	.43	2.61	19.75	NTSD1XR502FPB40
10	3380	0.38	15	1.5	3.0	2.0	40	490-4660-ND	.50	3.08	23.28	NTSD1XH103FPB40
20	4050	0.31	21	2.1	3.8	2.5	40	490-4661-ND	.41	2.49	18.83	NTSD1WB203FPB40
30	4100	0.26	21	2.1	3.8	2.5	40	490-4662-ND	.43	2.61	19.75	NTSD1WC303FPB40
50	4150	0.20	21	2.1	3.0	2.0	40	490-4663-ND	.24	1.45	10.98	NTSD1WD503FPB40
100	4250	0.14	21	2.1	3.0	2.0	40	490-4664-ND	.40	2.43	18.39	NTSD1WF104FPB40
2.0	3500	1.05	21	2.1	3.8	2.5	50	490-4665-ND	.43	2.61	19.75	NTSD1XM202FPB50
5.0	3700	0.68	21	2.1	3.0	2.0	50	490-4666-ND	.44	2.73	20.61	NTSD1XR502FPB50
10	3380	0.38	15	1.5	3.0	2.0	50	490-4667-ND	.50	3.08	23.28	NTSD1XH103FPB50
20	4050	0.31	21	2.1	3.8	2.5	50	490-4668-ND	.40	2.43	18.39	NTSD1WB203FPB50
30	4100	0.26	21	2.1	3.8	2.5	50	490-4669-ND	.43	2.61	19.75	NTSD1WC303FPB50
50	4150	0.20	21	2.1	3.0	2.0	50	490-4670-ND	.40	2.43	18.39	NTSD1WD503FPB50
100	4250	0.14	21	2.1	3.0	2.0	50	490-4671-ND	.44	2.73	20.61	NTSD1WF104FPB50



NTPA Series - Inrush Current Limiters



Fig.	Resistance 25°C (Ω) ±15%	Permissible Maximum Current 25°C (A)	Permissible Maximum Current 55°C (A)	Thermal Time Constant 25°C (s)	Thermal Dissipation Constant (mW/°C)	Permissible Electrolytic Capacitor (μF)	Dimensions - mm			Digi-Key Part No.	Pricing			Murata Part No.
							A	B	C		1	10	100	
1	3.0	5.4	4.7	135	26.8	8,600 @ 100V	23.0	5.5	10.0	490-3942-ND	1.14	7.00	52.86	NTPAN3R0LDK80
	4.0	4.7	4.1	130	26.8	8,600 @ 100V	23.0	5.5	10.0	490-3943-ND	1.14	7.00	52.86	NTPAN4R0LDK80
	6.0	3.9	3.4	130	26.8	8,600 @ 100V	23.0	5.5	10.0	490-3944-ND	1.14	7.00	52.86	NTPAN6R0LDK80
	4.0	4.0	3.5	125	21.8	5,000 @ 100V	20.0	5.5	10.0	490-3945-ND	.79	4.87	36.78	NTPAJ4R0LDK80
	6.0	3.4	2.9	125	21.8	5,000 @ 100V	20.0	5.5	10.0	490-3946-ND	.79	4.87	36.78	NTPAJ6R0LDK80
	8.0	3.0	2.6	130	21.8	5,000 @ 100V	20.0	5.5	10.0	490-3947-ND	.79	4.87	36.78	NTPAJ8R0LDK80
10.0	2.6	2.2	130	21.8	5,000 @ 100V	20.0	5.5	10.0	490-3948-ND	.79	4.87	36.78	NTPAJ100LDK80	
2	3.9	3.3	2.9	65	18.2	2,700 @ 100V	16.0	5.5	7.5	490-3949-ND	.54	3.29	24.84	NTPAD3R9LDNB0
	5.1	3.0	2.6	85	18.8	2,700 @ 100V	16.0	5.5	7.5	490-3950-ND	.54	3.29	24.84	NTPAD5R1LDNB0
	8.0	2.7	2.3	65	18.7	2,700 @ 100V	16.0	5.5	7.5	490-3951-ND	.54	3.29	24.84	NTPAD8R0LDNB0
	16.0	2.0	1.7	100	19.1	2,700 @ 100V	16.0	5.5	7.5	490-3952-ND	.54	3.30	24.91	NTPAD160LDNB0
	2.2	3.7	3.2	70	13.5	1,400 @ 100V	12.0	5.0	7.5	490-3953-ND	.38	2.30	17.42	NTPAA2R2LDNB0
	3.9	2.7	2.3	70	13.5	1,400 @ 100V	12.0	5.0	7.5	490-3954-ND	.38	2.30	17.42	NTPAA3R9LDNB0
5.1	2.5	2.2	70	13.5	1,400 @ 100V	12.0	5.0	7.5	490-3955-ND	.38	2.30	17.42	NTPAA5R1LDNB0	
8.2	2.0	1.7	70	13.5	1,400 @ 100V	12.0	5.0	7.5	490-3956-ND	.38	2.30	17.42	NTPAA8R2LDNB0	
10.0	1.7	1.5	70	13.5	1,400 @ 100V	12.0	5.0	7.5	490-3957-ND	.44	2.74	20.70	NTPAA100LDNB0	
3	16.0	1.4	1.2	65	11.6	800 @ 100V	11.0	5.0	5.0	490-3958-ND	.38	2.30	17.40	NTPA9160LMB0
	4.0	2.3	2.0	40	9.4	700 @ 100V	9.0	5.0	5.0	490-3959-ND	.22	1.33	10.02	NTPA74R0LMB0
	8.0	1.7	1.5	40	9.5	570 @ 100V	9.0	5.0	5.0	490-3960-ND	.22	1.33	10.02	NTPA78R0LMB0
	16.0	1.2	1.0	40	9.9	400 @ 100V	9.0	5.0	5.0	490-3961-ND	.22	1.33	10.02	NTPA7160LMB0
	22.0	1.0	0.8	40	9.1	400 @ 100V	9.0	5.0	5.0	490-3962-ND	.22	1.33	10.02	NTPA720LMB0



POSISTOR® PTC Thermistors for Heaters

Features: • The heater element regulates designated temperature range • Output wattage is decreased automatically when heat radiation is decreased • Compact and flat surface shall realize easy to install for various set • Depending on application, these PTC realize dual voltage use
Applications: • Heated Vessels • Contact Lens Cleaner • Portable Travel Iron • Massager • Fragrance • Electric Pot

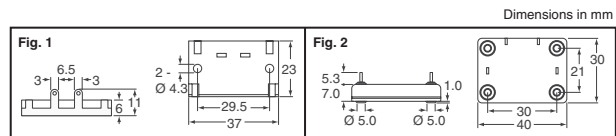


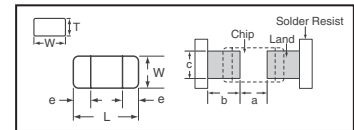
Fig.	Maximum Voltage (Vrms)	Curie Point (°C)	Inrush Current (Maximum)	Minimum Resistance Value @ 25°C (Ω)	Maximum Resistance Value @ 25°C (Ω)	Digi-Key Part No.	Price Each			Murata Part No.
							1	10	100	
1	260	90 ±7	5.0A	200	1200	490-4811-ND	8.08	7.26	5.72	PTWSB1BC201T260A00
		135 ±7				8.08	7.26	5.72	PTWSB1AS201T260A00	
		200 ±7				8.08	7.26	5.72	PTWSB2AH201T260A00	
		225 ±7				8.08	7.26	5.72	PTWSB2AG201T260A00	
		260 ±7				13.57	12.20	9.61	PTWTA1AD201T260A00	
2	260	280 ±7	10.0A	200	1200	490-4815-ND	13.57	12.20	9.61	PTWTA1AD201T260A00

POSISTOR® Circuit Protection for Overcurrent Protection

Overcurrent Protection device with resettable function suitable for current limiting resistor. This product is chip type PTC thermistor for overcurrent protection. Suitable for counter-measure for short circuit testing in portable equipment and current limiting resistor.

Features: • Rapid operation to protect the circuit in an overcurrent condition abnormality such as a short circuit • By removing the overcurrent condition, these products automatically return to the initial condition and can be used repeatedly • Stable resistance after operation due to ceramic PTC • 0603 SMD type for reflow soldering • Lead is not contained in the terminations

Part No.	Dimensions (mm)						
	L	W	T	e	a	b	c
PRG18_RB	1.6 ±0.15	0.8 ±0.15	0.8 ±0.15	0.1 - 0.6	0.6 - 0.8	0.6 - 0.7	0.6 - 0.8
PRG21_RA	2.0 ±0.2	1.25 ±0.2	0.9 ±0.2	0.2 min.	1.0 - 1.2	0.5 - 0.7	1.0 - 1.2
PRG21_RK	2.0 ±0.2	1.25 ±0.2	1.25 ±0.2	0.2 min.	1.0 - 1.2	0.5 - 0.7	1.0 - 1.2



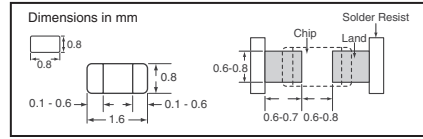
Maximum Voltage (V)	Non-operating Current @ 60°C (mA)	Trip Current @ -10°C (mA)	Max. Current (mA)	Resistance @ 25°C (Ω) ±20%	Curie Point (°C)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Murata Part No.
							1	10	100		Qty.	Pricing	
24	7	25	60	470	100	490-2473-1-ND	.24	.21	.17	490-2473-2-ND	4,000	89.30/M	PRG18BB471MB1RB
						490-2470-1-ND	.24	.21	.17	490-2470-2-ND	4,000	89.30/M	PRG18BB221MB1RB
						490-2469-1-ND	.24	.21	.17	490-2469-2-ND	4,000	89.30/M	PRG18BB101MB1RB
						490-2472-1-ND	.24	.21	.17	490-2472-2-ND	4,000	89.30/M	PRG18BB470MB1RB
						490-2471-1-ND	.24	.21	.17	490-2471-2-ND	4,000	89.30/M	PRG18BB330MB1RB
20	40	110	1,100	22	100	490-3989-1-ND	.33	.28	.25	490-3989-2-ND	3,000	166.26/M	PRG21BB220MB1RK
						490-3990-1-ND	.33	.28	.25	490-3990-2-ND	3,000	166.26/M	PRG21BB150MB1RK
						490-4673-1-ND	.57	.51	.40	490-4673-2-ND	4,000	215.63/M	PRG21BC6R8MM1RA
						490-4672-1-ND	.57	.51	.40	490-4672-2-ND	4,000	215.63/M	PRG21BC4R7MM1RA
6	500	2,000	10,000	0.2	90	490-3988-1-ND	.46	.40	.35	490-3988-2-ND	4,000	215.63/M	PRG21BC0R2MM1RA

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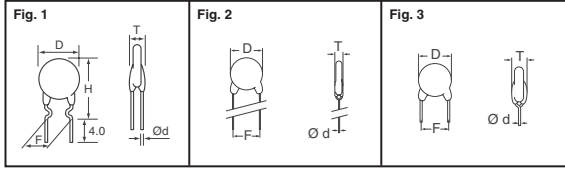
POSISTOR® Circuit Protection for Overheat Sensing Chip Type



This chip PTC Thermistor is reflow soldering SMD type for overheat sensing for power transistors, power diodes and power ICs in hybrid circuits. **Features:** • Excellent thermal response because of no coating • Solid-state construction provides excellent mechanical vibration and impact resistance • Contact-less operation provides prolonged service life and noiseless operation • Lead is not contained in the terminations

Sensing Temp. @ 4.7kΩ (°C)	Maximum Voltage (V)	Resistance @ 25°C (Ω) ±50%	Curie Point (°C)	Operating Temperature Range (°C)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing 4,000			Murata Part No.
						1	10	100		1	10	100	
65 ±5	32	470	50	-20 - 80	490-2468-1-ND	.28	.25	.20	490-2468-2-ND	104.55/M			PRF18BG471QB1RB
75 ±5			60	-20 - 90	490-2467-1-ND	.28	.25	.20	490-2467-2-ND	104.55/M			PRF18BF471QB1RB
85 ±5			70	-20 - 100	490-2466-1-ND	.28	.25	.20	490-2466-2-ND	104.55/M			PRF18BE471QB1RB
95 ±5			80	-20 - 110	490-2465-1-ND	.28	.25	.20	490-2465-2-ND	104.55/M			PRF18BD471QB1RB
105 ±5			90	-20 - 120	490-2464-1-ND	.28	.25	.20	490-2464-2-ND	104.55/M			PRF18BC471QB1RB
115 ±5	32	470	100	-20 - 130	490-2463-1-ND	.28	.25	.20	490-2463-2-ND	104.55/M			PRF18BB471QB1RB
125 ±5			110	-20 - 140	490-2462-1-ND	.28	.25	.20	490-2462-2-ND	104.55/M			PRF18BA471QB1RB
135 ±5			120	-20 - 150	490-2460-1-ND	.28	.25	.20	490-2460-2-ND	104.55/M			PRF18AA471QB1RB
145 ±5			130	-20 - 160	490-2461-1-ND	.28	.25	.20	—	—			PRF18AS471QB1RB
85 ±3	32	470	—	-20 - 100	490-4807-1-ND	.32	.28	.22	490-4807-2-ND	119.79/M			PRF18BE471RB1RB
95 ±3			—	-20 - 110	490-4806-1-ND	.32	.28	.22	490-4806-2-ND	119.79/M			PRF18BD471RB1RB
105 ±3			—	-20 - 120	490-4805-1-ND	.32	.28	.22	490-4805-2-ND	119.79/M			PRF18BC471RB1RB
115 ±3			—	-20 - 130	490-4804-1-ND	.32	.28	.22	490-4804-2-ND	119.79/M			PRF18BB471RB1RB

POSISTOR® Narrow Current Band – PTC Thermistors For Overcurrent Protection

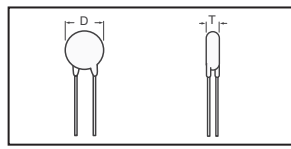


This product is leaded type PTC thermistor for overcurrent protection which is suitable for the current limiting resistor. **Features:** • Small fluctuation in the circuit due to resistance tolerance ±10% • Narrow current range between operating and non-operating current at -10°C - 60°C • Quick operating time due to small size compared with conventional products • Best suited to meet the requirements for power supply and motor protector • Circuit is protected until current is turned off

Fig.	Max. Voltage (V)	Non-Operating Current @ 60°C (mA)	Trip Current @ -10°C (mA)	Max. Current (A)	Resistance @ 25°C (Ω) ±%	Curie Point (°C)	Body Diameter Dim. D (mm)	Thickness Dim. T (mm)	Height Dim. H (mm)	Lead Space Dim. F (mm)	Lead Diameter (phi d) (mm)	Digi-Key Part No.	1	Price Each 10	100	Murata Part No.
1	30	122	240	1.5	10 ±10	130	4.5	3.5	9.5	5.0	0.5	490-3963-ND	.38	.34	.27	PTGL04AS100K2N51B0
		167	330	2.0	10 ±10	130	4.5	3.5	9.5	5.0	0.6	490-3964-ND	.38	.34	.27	PTGL04AS100K2B51B0
		269	530	3.5	3.9 ±10	130	5.5	3.5	10.5	5.0	0.6	490-3965-ND	.41	.37	.29	PTGL05AS3R9K2B51B0
		336	663	4.5	2.7 ±10	130	7.3	3.5	12.3	5.0	0.6	490-3966-ND	.44	.40	.32	PTGL07AS2R7K2B51B0
		420	829	5.0	1.8 ±10	130	7.3	3.5	12.3	5.0	0.6	490-3967-ND	.49	.44	.35	PTGL07AS1R8K2B51B0
		556	1097	6.0	1.2 ±10	130	9.3	3.5	14.3	5.0	0.6	490-3968-ND	.64	.58	.46	PTGL09AS1R2K2B51B0
	685	1352	7.0	0.8 ±10	130	11.5	3.5	16.5	5.0	0.6	490-3969-ND	.94	.85	.67	PTGL12AS0R8K2B51B0	
	168	332	1.0	10 ±10	130	4.5	4.5	9.5	5.0	0.6	490-3970-ND	.38	.34	.27	PTGL04AS100K3B51B0	
	197	388	1.5	6.8 ±10	130	5.5	4.5	10.5	5.0	0.6	490-3971-ND	.42	.38	.30	PTGL05AS6R8K3B51B0	
	307	606	3.0	3.3 ±10	130	7.3	7.3	12.3	5.0	0.6	490-3972-ND	.44	.40	.32	PTGL07AS3R3K3B51B0	
	412	814	4.0	2.2 ±10	130	9.3	9.3	14.3	5.0	0.6	490-3973-ND	.64	.58	.46	PTGL09AS2R2K3B51B0	
	592	1168	5.0	1.2 ±10	130	11.5	11.5	16.5	5.0	0.6	490-3974-ND	.93	.84	.66	PTGL12AS1R2K3B51B0	
	88	175	1.0	22 ±10	130	4.5	4.5	9.5	5.0	0.5	490-3975-ND	.38	.34	.27	PTGL04AS220K4N51B0	
	115	226	1.0	22 ±10	130	4.5	4.5	9.5	5.0	0.6	490-3976-ND	.38	.34	.27	PTGL04AS220K4B51B0	
	170	335	1.5	10 ±10	130	5.5	5.5	10.5	5.0	0.6	490-3977-ND	.41	.37	.29	PTGL05AS100K4B51B0	
	186	368	2.2	5.6 ±10	130	7.3	7.3	12.3	5.0	0.5	490-3978-ND	.44	.40	.32	PTGL07AS5R6K4N51B0	
	229	452	3.0	5.6 ±10	130	7.3	7.3	12.3	5.0	0.6	490-3979-ND	.49	.44	.35	PTGL07AS5R6K4B51B0	
	333	656	4.0	3.3 ±10	130	9.3	9.3	14.3	5.0	0.6	490-3980-ND	.72	.65	.51	PTGL09AS3R3K4B51B0	
439	867	5.0	2.2 ±10	130	11.5	11.5	16.5	5.0	0.6	490-3981-ND	.92	.83	.66	PTGL12AS2R2K4B51B0		
74	147	0.5	56 ±10	130	5.5	5.5	10.5	5.0	0.6	490-3982-ND	.38	.35	.27	PTGL04AS560K6B51B0		
106	209	1.0	27 ±10	130	5.5	5.5	10.5	5.0	0.6	490-3983-ND	.42	.38	.30	PTGL05AS270K6B51B0		
148	292	1.5	15 ±10	130	7.3	7.3	12.3	5.0	0.6	490-3984-ND	.52	.48	.38	PTGL07AS150K6B51B0		
192	380	2.0	12 ±10	130	9.3	9.3	14.3	5.0	0.6	490-3985-ND	.80	.72	.57	PTGL09AS120K6B51B0		
227	447	2.2	7.6 ±10	130	9.3	9.3	14.3	5.0	0.6	490-3986-ND	.89	.80	.63	PTGL09AS7R6K6B51B0		
310	613	3.5	4.7 ±10	130	11.5	11.5	16.5	5.0	0.6	490-3987-ND	.91	.83	.65	PTGL12AS4R7K6B51B0		
2	250	90	300	0.5	22 ±30	—	8.0	6.0	—	5.0	0.6	490-4808-1-ND†	.38	.34	.27	PTGL07BB220N0B52A0
		90	300	0.5	22 ±30	—	8.0	6.0	—	5.0	0.6	490-4808-3-ND‡	143.02/1,000			PTGL07BB220N0B52A0
		100	280	0.6	39 ±30	—	10.0	6.0	—	5.0	0.6	490-4809-1-ND†	.42	.37	.29	PTGL09AR390N0B52A0
		100	280	0.6	39 ±30	—	10.0	6.0	—	5.0	0.6	490-4809-3-ND‡	156.82/1,000			PTGL09AR390N0B52A0
3	265	118	330	1.0	25 ±25	—	10.0	6.0	—	5.0	0.6	490-4810-ND	.79	.72	.57	PTGL09AR250H8B52B0

† Cut Tape ‡ Tape and Box

Honeywell Inrush Current Limiters Sensing and Control



Honeywell ICL Inrush Current Limiters are a cost-effective way of limiting the inrush of current that can damage components in a switching power supply and other power devices when the equipment is turned on. **Features:** • PC board mountable • Rugged design • Solderable leads • High quality • Low cost **Specifications:** • Operating Temperature -40°C - 185°C • Lead Construction: Straight tinned copper (kinked available)

Resistance @ 25°C (Ω)	Max. Steady State Current (A)	Resistance @ Steady State Current (Ω)	Max. Coated Diameter Dim. D (mm)	Max. Coated Thickness Dim. T (mm)	Lead Diameter (mm)	Digi-Key Part No.	1	Price Each 10	100	Honeywell Sensing Part No.
0.5	30	0.01	32	8	1	480-3176-ND	3.81	2.83	2.34	ICL320R030-01
1	30	0.02	32	6	1	480-3177-ND	4.72	3.50	2.89	ICL321R030-01
2.5	8	0.06	22	6	1	480-3175-ND	3.73	2.70	2.22	ICL222R508-01
5	6	0.1	15	6	0.8	480-3172-ND	2.48	1.66	1.35	ICL155R006-01
5	7	0.07	15	6	0.8	480-3173-ND	3.65	2.55	2.09	ICL155R007-01
10	8	0.1	22	6	1	480-3174-ND	3.73	2.70	2.22	ICL2210008-01
16	4	0.27	15	6	0.8	480-3171-ND	3.60	2.49	2.03	ICL1516004-01
50	2	0.72	11.5	5	0.8	480-3170-ND	2.99	2.07	1.69	ICL1250002-01

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

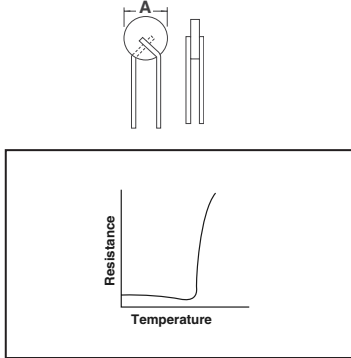
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(UK091) 1929

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)

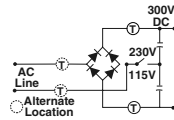
* KCPTC1-KIT-ND Digi-Key® PTC Thermistors Kits

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	RL4010-50-110-50-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.



Parameter	Description
R25	Resistance at 25°C
20%	Tolerance on Resistance at 25°C
I _{nt} (25°C)	Current which will not trip thermistor (25°C ambient)
I _t (25°C)	Current which will trip thermistor (25°C ambient)
I _{nt} (55°C)	Current which will not trip thermistor (55°C ambient)
I _t (10°C)	Current which will trip thermistor (10°C ambient)
I _{mo}	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 _{nt} (25°C) mA	I _t (25°C) mA	I _{nt} (55°C) mA	I _t (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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