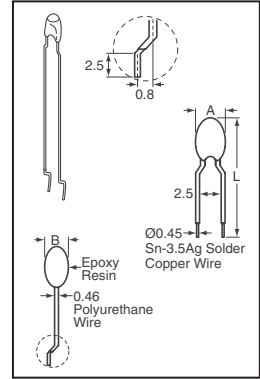


NTSD1 Series - NTC Thermistors for Temperature Sensing



Features: • Electric insulation on lead wire • Excellent bending resistance and easy handling due to suitable hardness of surface coating • High-accuracy of $\pm 1\%$ 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

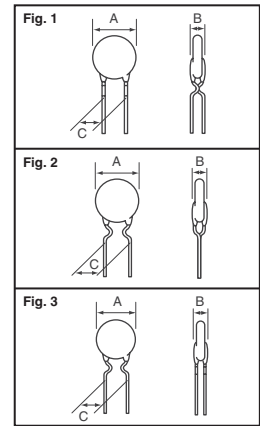
Resistance 25°C (k Ω) $\pm 1\%$	B-Constant 25-50°C (k) $\pm 1\%$	Permissible Operating Current 25°C (mA)	Rated Electric Power 25°C (mW)	Typical Dissipation Constant 25°C (mW/°C)	Dimensions - mm			Digi-Key Part No.	Pricing			Murata Part No.
					A	B	L		1	10	100	
2.0	3500	1.05	21	2.1	3.8	2.5	30	490-4651-ND	.41	2.49	18.83	NTSD1XM202FPB30
5.0	3700	0.68	21	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) $\pm 15\%$	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

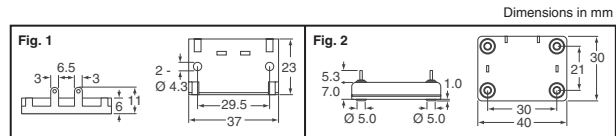


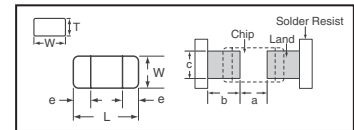
Fig.	Maximum Voltage (Vrms)	Curie Point (°C)	Inrush Current (Maximum)	Minimum Resistance Value @ 25°C (Ω)	Maximum Resistance Value @ 25°C (Ω)	Digi-Key Part No.	Price Each			Murata Part No.
							1	10	100	
1	260	90 ± 7	5.0A	200	1200	490-4811-ND	8.08	7.26	5.72	PTWSB1BC201T260A00
		135 ± 7				8.08	7.26	5.72	PTWSB1AS201T260A00	
		200 ± 7				8.08	7.26	5.72	PTWSB2AH201T260A00	
		225 ± 7				8.08	7.26	5.72	PTWSB2AG201T260A00	
		260				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) $\pm 20\%$	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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