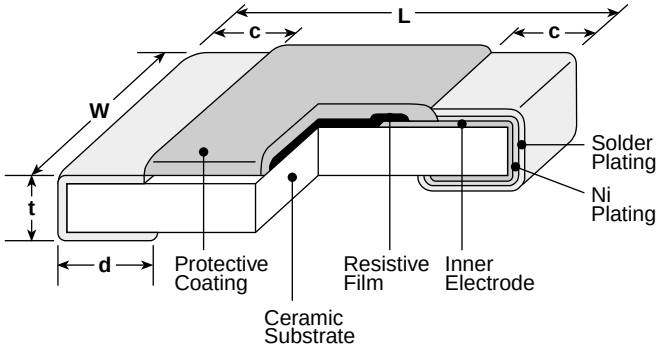
NT73

negative tempco thermistor

features

- Anti-leaching nickel barrier terminations
- 90/10 solder plated terminations, standard
- Twelve standard resistance values
- Suitable for reflow and wave soldering
- Marking: Black three-digit on pink body color

dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm) L	W	c	d	t
1J (0603)	.063±.008 (1.6±0.2)	.031±.004 (0.8±0.1)	.012±.004 (0.3±0.1)	.012±.004 (0.3±0.1)	.02±.004 (0.5±0.1)
2A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 +.008 -.004 (0.3 +0.2 -0.1)	.02 +.008 -.004 (0.5 +0.2 -0.1)
2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.008 (0.5±0.3)	.016 +.008 -.004 (0.4 +0.2 -0.1)	.024±.004 (0.6±0.1)

ordering information

Old Part #	NT73	2A		T	103	K		
New Part #	NT73	2A	L	TD	103	K	3800	
	Type	Size Code	Termination Material	Packaging	Nominal Resistance	Tolerance	B Constant Tolerance	
		1J: 0603 2A: 0805 2B: 1206	L: SnPb T: Sn	TD: 7" paper tape (5,000 pieces/reel)	2 significant figures + 1 multiplier	J: ±5% K: ±10% L: ±15%	3200 3500 3800	

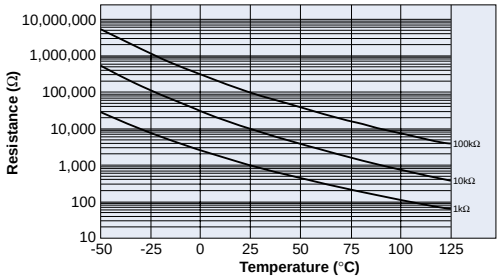
For further information on packaging, please refer to Appendix A.

applications and ratings

Part Designation	Resistance @ 25°C	Resistance Tolerance	B Constant @ 25°C/75°C	B Constant Tolerance	Thermal Dissipation Constant (mW/°C)	Power Rating (mW)	Operating Temperature Range
NEW NT731J	1.0kΩ 2.0kΩ 2.2kΩ 2.4kΩ 3.3kΩ 4.7kΩ 5.0kΩ 6.8kΩ 10kΩ 15kΩ 20kΩ 22kΩ 30kΩ 33kΩ 47kΩ 68kΩ 100kΩ	J: ±5% K: ±10%	3200K	±10%	2	5	-55°C to +125°C
			3500K				
			3800K	±5%			
NT732A	1.0kΩ 2.0kΩ 2.2kΩ 2.4kΩ 3.3kΩ 4.7kΩ 5.0kΩ 6.8kΩ	K: ±10% L: ±15%	3200K	±10%	2.8	5	
			3500K				
			3800K				
	10kΩ 10kΩ 15kΩ 20kΩ 22kΩ 30kΩ 33kΩ 47kΩ 68kΩ 100kΩ 150kΩ	J: ±5% K: ±10% L: ±15%	3500K 3800K	±5%			
NT732B	1.0kΩ 2.2kΩ 3.3kΩ 4.7kΩ 6.8kΩ	K: ±10% L: ±15%	3200K 3500K	±10%	3	5	
	10kΩ 22kΩ 33kΩ 47kΩ 68kΩ 100kΩ	J: ±5% K: ±10% L: ±15%	3800K	±5%			

environmental applications

Temperature Characteristics



RT/R25 Ratio vs. B Constant

Temperature (°C)	B Constant (K)			Temperature (°C)	B Constant (K)		
	3200	3500	3800		3200	3500	3800
-55	51.45	74.45	107.72	40	0.598	0.570	0.543
-50	37.02	51.94	72.87	45	0.509	0.478	0.448
-45	27.03	36.82	50.15	50	0.436	0.403	0.373
-40	20.00	26.48	35.07	55	0.375	0.342	0.312
-35	14.99	19.32	24.90	60	0.323	0.291	0.262
-30	11.36	14.27	17.92	65	0.281	0.249	0.221
-25	8.71	10.68	13.08	70	0.244	0.214	0.188
-20	6.75	8.08	9.66	75	0.214	0.185	0.160
-15	5.28	6.18	7.22	80	0.188	0.160	0.137
-10	4.17	4.77	5.46	85	0.165	0.140	0.118
-5	3.33	3.72	4.17	90	0.146	0.122	0.102
0	2.67	2.93	3.21	95	0.130	0.107	0.088
5	2.17	2.33	2.50	100	0.115	0.094	0.077
10	1.77	1.86	1.97	105	0.103	0.083	0.067
15	1.45	1.50	1.56	110	0.092	0.074	0.059
20	1.20	1.22	1.24	115	0.083	0.066	0.052
25	1.00	1.00	1.00	120	0.075	0.058	0.046
30	0.838	0.824	0.810	125	0.067	0.052	0.041
35	0.706	0.683	0.661				

Note: RT/R25 ratio is the resistance at temperature (T) divided by the nominal resistance at 25°C. The RT/R25 ratio value is multiplied by the thermistor's nominal 25°C value to determine the nominal resistance value at a given temperature in the chart above.

Performance Characteristics

Parameter	Maximum Δ R	Test Method
High Temperature Exposure	±3.0%	1000 hours @ 80°C
Resistance to Solder Heat	±1.0%	MIL-R-55342 π 4.7.7, 260°C for 10 seconds
Terminal Strength-Bend	±1.0%	2mm min. deflection in either direction for 10 seconds
Moisture Resistance	±3.0%	MIL-STD-202, Method 103, 40°C, 90 - 95% RH, 1000 hours
Life	±3.0%	80°C, DC 5mm, 1000 hours
Temperature Cycling	±3.0%	30 minutes @ -55°C, 15 minutes @ +25°C, 30 minutes @ +125°C, 15 minutes @ +25°C, 50 cycles
Dielectric Withstanding Voltage 2A 2B	 400V 400V	 1 minute minimum MIL-STD-202, Method 301
Insulation Resistance	10,000 MΩ Minimum	—

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.