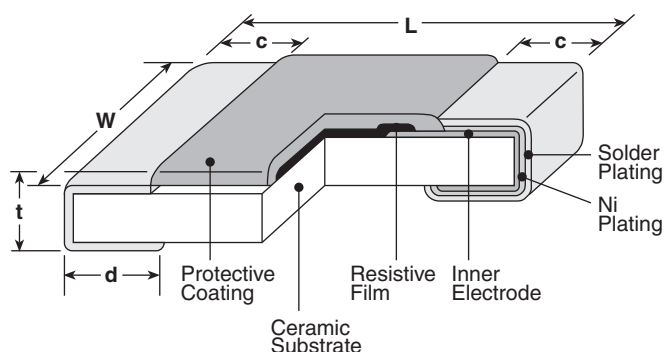


features

- Anti-leaching nickel barrier terminations
- Twelve standard resistance values
- Suitable for reflow and wave soldering
- Marking: 1J no marking on pink body, 2A and 2B black three digit on pink body color
- Products with lead-free terminations meet EU RoHS requirements. Pb located in glass material, electrode and resistor element is exempt per Annex 1, exemption 5 of EU directive 2005/95/EC

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

New Part #	NT73	2A	T	TD	103	K	3800	J
Type	Type	Size Code	Termination Material	Packaging	Nominal Resistance	Resistance Tolerance	B Constant Nominal	B Constant Tolerance
		1J: 0603 2A: 0805 2B: 1206	T: Sn (Other termination styles may be available, please contact factory for options)	TD: 7" paper tape (5,000 pieces/reel)	2 significant figures + 1 multiplier	J: ±5% K: ±10% L: ±15%	3200 3500 3700 3800 3950 4100	H: ±3% J: ±5% K: ±10%

applications and ratings

Part Designation	Resistance @ 25°C	Resistance Tolerance	B Constant @ 25°C/75°C	B Constant Tolerance	Power Rating (mW)	Operating Temperature Range
NT731J	6.8kΩ	J: ±5% K: ±10%	3500K	±10%	5	-55°C to +125°C
	10kΩ		3800K	±5%		
	15kΩ		3700K	±3%		
	10kΩ					
	20kΩ					
	22kΩ					
	30kΩ		3800K	±5%		
	33kΩ					
	47kΩ					
	68kΩ					
	100kΩ		4100K	±3%		
	47kΩ					

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

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

12/31/08

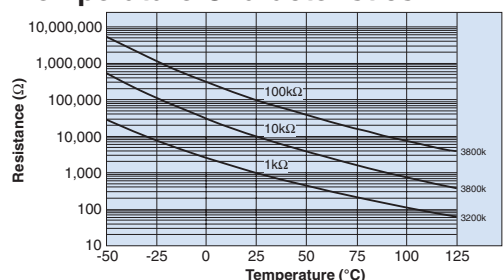
applications and ratings (continued)

Part Designation	Resistance @ 25°C	Resistance Tolerance	B Constant @ 25°C/75°C	B Constant Tolerance	Power Rating (mW)	Operating Temperature Range									
NT732A	1kΩ	K: ±10% L: ±15%	3200K	±10%	5	-55°C to +125°C									
	2kΩ		3500K												
	2.2kΩ														
	2.4kΩ														
	3.3kΩ	J: ±5%; K: ±10% L: ±15%	3800K	±5%											
	4.7kΩ														
	5kΩ														
	6.8kΩ														
	10kΩ	J: ±5% K: ±10% L: ±15%	3800K	±10%											
	15kΩ		3800K												
	10kΩ														
	20kΩ														
	22kΩ														
	30kΩ														
	33kΩ														
	47kΩ														
	68kΩ														
	100kΩ														
	150kΩ														
	50kΩ						3950K								
	10kΩ														
	15kΩ						4100K								
	20kΩ														
	22kΩ														
	30kΩ														
	33kΩ														
	47kΩ														
	68kΩ														
	100kΩ														
	150kΩ														
NT732B	1kΩ	K: ±10% L: ±15%	3200K	±10%	5										
	2.2kΩ		3500K												
	3.3kΩ														
	4.7kΩ														
	6.8kΩ	J: ±5% K: ±10% L: ±15%	3800K	±5%											
	10kΩ														
	22kΩ														
	33kΩ														
	47kΩ														
	68kΩ														
	100kΩ														
	150kΩ														

circuit protection

environmental applications

Temperature Characteristics



RT/R25 Ratio vs. B Constant

Resistance	1k Ω	5k Ω	10k Ω	100k Ω	10kΩ	Resistance	1k Ω	5k Ω	10k Ω	100k Ω	10kΩ
B Constant	3200K	3500K	3700K	3800K	4100K	B Constant	3200K	3500K	3700K	3800K	4100K
Temp. (°C)	Ω	k Ω	k Ω	k Ω	k Ω	Temp. (°C)	Ω	k Ω	k Ω	k Ω	k Ω
-55	38770	273.24	638.23	7692.5	1203.1	40	604.07	2.8809	5.5500	54.959	5.1999
-50	28840	197.67	465.81	5414.6	820.76	45	515.10	2.4202	4.6100	45.484	4.2349
-45	21706	144.85	343.25	3864.5	568.09	50	441.00	2.0421	3.8500	37.823	3.4692
-40	16517	107.43	255.22	2794.3	398.57	55	379.00	1.7302	3.2300	31.594	2.8585
-35	12698	80.577	191.37	2045.2	283.20	60	326.90	1.4718	2.7200	26.506	2.3682
-30	9857.0	61.077	144.64	1514.1	203.64	65	282.95	1.2568	2.3100	22.330	1.9721
-25	7721.2	46.759	110.13	1133.0	148.07	70	245.72	1.0771	1.9700	18.886	1.6504
-20	6100.5	36.137	83.710	856.49	108.37	75	214.08	0.92637	1.6800	16.035	1.3877
-15	4858.7	28.173	64.190	653.63	80.182	80	187.08	0.79937	1.4500	13.663	1.1724
-10	3899.0	22.147	49.640	503.31	59.943	85	163.96	0.69199	1.2500	11.682	0.99491
-5	3151.3	17.546	38.680	390.86	45.252	90	144.11	0.60087	1.0800	10.022	0.84926
0	2564.2	14.004	30.370	305.97	34.478	95	127.00	0.52329	0.94000	8.6257	0.72802
5	2099.9	11.256	23.970	241.34	26.473	100	112.21	0.45701	0.82000	7.4466	0.62662
10	1730.0	9.1063	19.070	191.73	20.506	105	99.377	0.40016	0.72000	6.4466	0.54156
15	1433.5	7.4135	15.270	153.36	16.016	110	88.224	0.35129	0.63000	5.5968	0.46982
20	1194.2	6.0712	12.320	123.46	12.608	115	78.501	0.30915	0.56000	4.8721	0.40906
25	1000.0	5.0000	10.000	100.00	10.000	120	70.004	0.27272	0.49000	4.2523	0.35741
30	841.48	4.1398	8.1700	81.470	7.9880	125	62.558	0.24114	0.44000	3.7207	0.31332
35	711.39	3.4451	6.7100	66.739	6.4242						

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	Requirement Δ R		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
B Constant	Within specified tolerance	—	+25°C/+75°C
Resistance to Solder Heat	±1%, ±2%:1kΩ	±0.5%, ±1%:1kΩ	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±3.0%	±1.3%	-55°C (30 minutes), +125°C (30 minutes), 50 cycles
Moisture Resistance	±3.0%	±1.1%	40°C ± 2°C, 90 - 95% RH, 1000 hours
Load Life	±3.0%	±2.5%	80°C ± 3°C, DC5mW, 1000 hours
High Temperature Exposure	±3.0%	±1.6%	80°C, 1000 hours
High Temperature Exposure	—	7 (Reference)	125°C, 1000 hours

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1/06/08