



# High Accuracy NTC Thermistors

## Features

- LL 41 glass package
- High reliability and high moisture proof
- Wide range of operating temperature from -50°C up to 300°C



## Applications

- Low cost probe assemblies
- High temperature printer ink sensing
- Consumer electronics
- High temperature-high speed tire manufacturing
- Printed circuit board temperature sensing
- Air-conditioner

## General Characteristics

Parameter	Test Conditions	Symbol	Value	Unit
Rated zero-power resistance		$R_{25}$	1,000~2,000,000	$\Omega$
Tolerance of $R_{25}$			$\pm 1\%$ , $\pm 2\%$ , $\pm 3\%$ , $\pm 5\%$ , $\pm 10\%$	
Range of B value		$B_{0/50}$ , $B_{25/50}$ , $B_{25/85}$	2000~5000	K
Tolerance of B value			$\pm 0.5\%$ , $\pm 1\%$ , $\pm 1.5\%$	
Dissipation constant	In still air		2	mW/°C
Thermal time constant	In still air		8~15	Sec.
Operating temperature range			-50~+300	°C

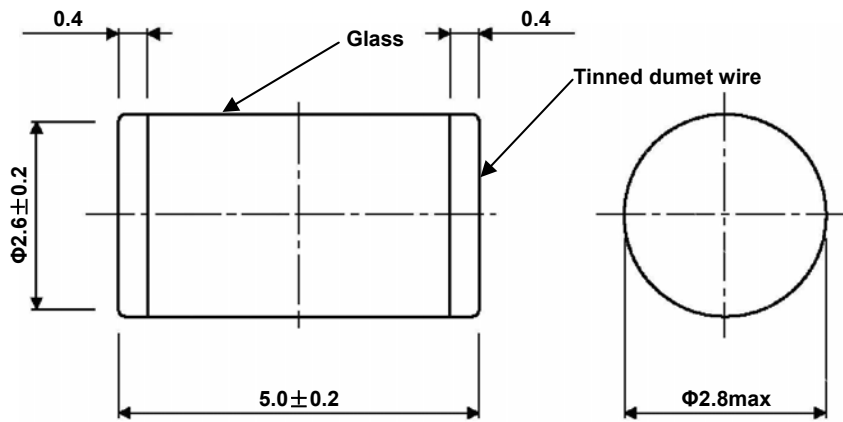


**R-T Characteristics**

R <sub>25</sub>	2 KΩ	5 KΩ	10 KΩ	10 KΩ	20 KΩ	30 KΩ	50 KΩ	100 KΩ	200 KΩ	500KΩ
B <sub>25/50</sub>	3470	3500	3470	3950	3950	3950	3950	3950	4160	4300
-40°C	44.398	86.578								
-30°C	25.110	52.992								
-20°C	14.773	33.109	72.686	97.840	195.68	293.52	483.85	975.80	2193.5	
-10°C	9.0028	21.091	44.539	55.595	111.19	166.79	275.87	554.70	1212.1	
0°C	5.6623	13.684	28.135	32.755	65.509	98.264	163.01	327.02	695.60	1815.0
10°C	3.6640	9.0345	18.266	19.938	39.876	59.814	99.459	199.20	413.03	1058.4
20°C	2.4327	6.0654	12.155	12.501	25.001	37.502	62.465	124.97	252.90	637.29
30°C	1.6534	4.1380	8.2713	8.0512	16.102	24.154	40.273	80.527	159.22	395.00
40°C	1.1480	2.8671	5.7444	5.3146	10.629	15.944	26.590	53.164	102.82	251.36
50°C	0.8128	2.0165	4.0644	3.5882	7.1764	10.765	17.942	35.884	67.950	163.84
60°C	0.5859	1.4390	2.9251	2.4734	4.9468	7.4202	12.350	24.717	45.870	109.17
70°C	0.4294	1.0415	2.1385	1.7380	3.4760	5.2140	8.6573	17.345	31.574	74.221
80°C	0.3196	0.7643	1.5861	1.2431	2.4863	3.7294	6.1719	12.383	22.129	51.406
90°C	0.2412	0.5685	1.1923	0.9040	1.8080	2.7120	4.4689	8.9809	15.769	36.220
100°C	0.1845	0.4285	0.9074	0.6676	1.3352	2.0028	3.2828	6.6101	11.412	25.929
110°C	0.1429	0.3272	0.6986	0.5002	1.0004	1.5006	2.4440	4.9319	8.3782	18.837
120°C	0.1120	0.2530	0.5437	0.3799	0.7597	1.1396	1.8424	3.7268	6.2340	13.874
130°C		0.1981	0.4274	0.2922	0.5844	0.8765	1.4051	2.8498	4.6969	10.350
140°C		0.1571	0.3392	0.2274	0.4549	0.6823	1.0834	2.2034	3.5807	7.8138
150°C		0.1261	0.2715	0.1791	0.3581	0.5372	0.8439	1.7215	2.7599	5.9657
160°C			0.2192	0.1425	0.2850	0.4275	0.6636	1.3582	2.1495	4.6029
170°C			0.1784	0.1146	0.2291	0.3437	0.5267	1.0814	1.6905	3.5868
180°C			0.1462	0.0930	0.1860	0.2790	0.4215	0.8686	1.3419	2.8212
190°C			0.1207	0.0762	0.1524	0.2286	0.3401	0.7034	1.0746	2.2387
200°C			0.1003	0.0630	0.1260	0.1889	0.2765	0.5740	0.8677	1.7913
210°C							0.2265	0.4719	0.7062	1.4447
220°C							0.1867	0.3907	0.5791	1.1740
230°C							0.1550	0.3257	0.4783	0.9608
240°C							0.1295	0.2732	0.3977	0.7917
250°C							0.1088	0.2305	0.3329	0.6566
260°C								0.1957	0.2804	0.5480
270°C								0.1670	0.2376	0.4600
280°C								0.1433	0.2025	0.3884
290°C								0.1236	0.1736	0.3297
300°C										0.2814



Dimensions in mm



Standard Glass Case  
JEDEC LL 41

Type No.

**NTGL - XXX - XXXX X - X**

①                      ②                      ③                      ④                      ⑤

- ① Series name
- ② Zero-power resistance( $R_{25}$ ), for example:
  - 502 ----- 5 K $\Omega$
  - 103 ----- 10 K $\Omega$
  - 403 ----- 40 K $\Omega$
  - 503 ----- 50 K $\Omega$
  - 104 ----- 100 K $\Omega$
- ③ B value, for example:
  - 3850 ----- B value is 3850K
  - 3950 ----- B value is 3950K
- ④ Type of B value, for example:
  - A -----  $B_{0/50}$
  - B -----  $B_{25/50}$
  - C -----  $B_{25/85}$
- ⑤ Tolerance of  $R_{25}$ , for example:
  - 1 ----- Tolerance of  $R_{25}$  is 1%
  - 5 ----- Tolerance of  $R_{25}$  is 5%