

# 样品承认书

## Sample Approval

客户名称/Client name:

产品名称/Product name: 单端玻封NTC热敏电阻

产品编号/Part number: 26G104FD15C

制造承认/Manufacturer Approval		客户承认/Client Approval	
承认部门 Approval Dept.	承认人/日期 Approval /Date	承认部门 Approval Dept.	承认人/日期 Approval /Date
工程部	胡宇星2016-2-17		

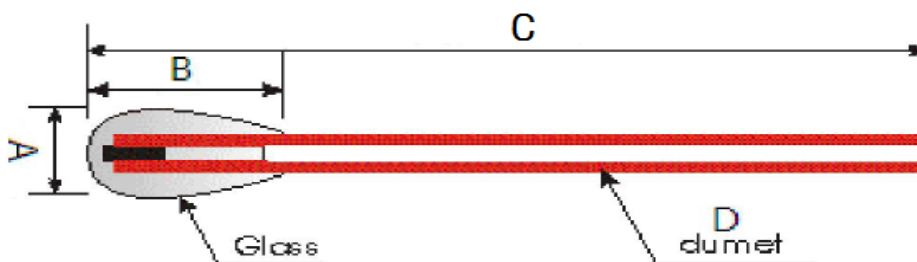
1. 适用范围 Application Scope

本规范适用于 26G104FD15C。  
This specification is only for 26G104FD15C.

2. 电性能参数 Electrical characteristics

- a. 零功率电阻/ Zero power resistance:  $R_{25}=100K\Omega\pm 1\%$
- b. B值/ B-value:  $B_{25/50}=3950K\pm 1\%$
- c. 热时间常数/ Thermal time constant: 3.5~6.5sec (在空气中/in still air)
- d. 耗散系数/ Dissipation constant: Approx. 0.7mW/°C (在空气中/in still air)
- e. 额定功率/ Power rating: 192 (227 mW)
- f. 使用温度范围/ Operating temperature range:  $-50^{\circ}\text{C}\sim 300 (350)^{\circ}\text{C}$

3. 外形尺寸图 Appearance/Dimensions



A(mm)	B(mm)	C(mm)	D(mm)
1.35±0.15	3.0Max	65±5	0.25±0.05

4. 可靠性特性 Reliability characteristics

项目 items	检验条件 test condition	检验要求 requirement
高温试验 High temp	$T=180^{\circ}\text{C}\pm 2^{\circ}\text{C}, t=1000\text{h};$	$\Delta R_{25} : R_{25}\leq\pm 3\%$ $\Delta B_{25/85} : B_{25/85}\leq\pm 2\%$
低温试验 Low temp	$T=-40^{\circ}\text{C}\pm 2^{\circ}\text{C}, t=1000\text{h};$	$\Delta R_{25} : R_{25}\leq\pm 3\%$ $\Delta B_{25/85} : B_{25/85}\leq\pm 2\%$
温度循环 Temperature cycling	$0^{\circ}\text{C}\sim 150^{\circ}\text{C}, 5\text{min one cycle, total } 1000 \text{ cycles};$	$\Delta R_{25} : R_{25}\leq\pm 3\%$ $\Delta B_{25/85} : B_{25/85}\leq\pm 2\%$
潮热试验 Humidity test	$60^{\circ}\text{C}, 95\%\text{R.H.}, 1000\text{h};$	$\Delta R_{25} : R_{25}\leq\pm 3\%$ $\Delta B_{25/85} : B_{25/85}\leq\pm 2\%$

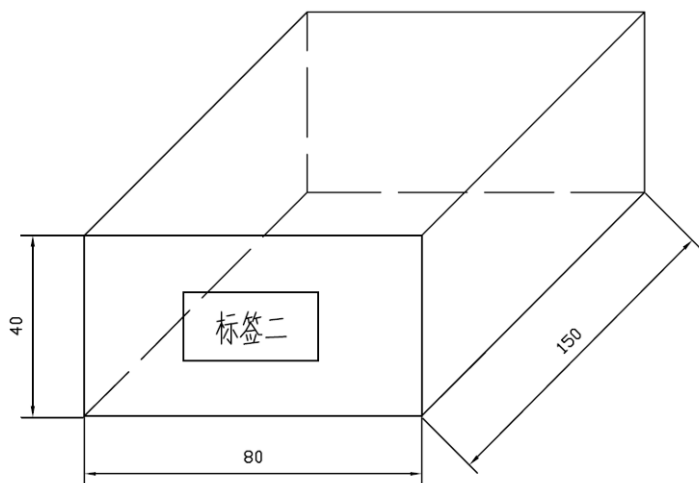
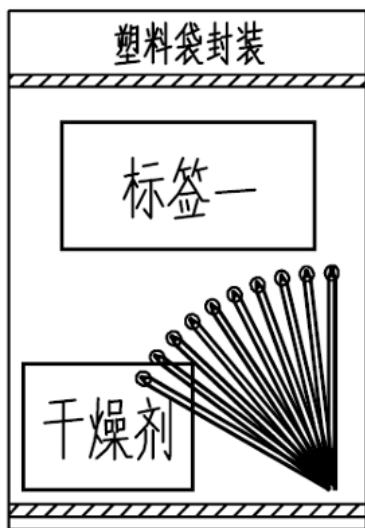
样品承认书 Sample Approval	图号 Drawing No.
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5. 机械性能 Mechanical characteristics

项目 items	检验条件 test condition	检验要求 requirement
引出线抗拉强度试验 Lead wire pulling test	将产品固定，轮流在每根引出线上沿轴线方向加静负荷 9.8 牛顿或 1.0Kg，时间 10 秒钟。 Fix the product and apply 9.8N or 1.0kg force on axial direction of each lead wire, for 10 secs.	产品外观无损伤，参数符合规定要求。No visible damage, and are within specification
引出线弯曲试验 Lead wire bending test	将产品固定，在引出线端部沿轴线方向加拉力 100 克，然后将管身（或引出线）向同一方向缓慢的弯曲三次，每次弯曲到与引出线（或管身）轴线 45°角再回到原位置。 Fix the product and apply 100g force on axial direction of each lead wire, then bend both lead wires to same direction slowly, before bending them back to original location, for 3 times	
引出线易焊性 Lead wire welding ability	将引出线浸泡在助焊剂溶液后，浸入温度为 230℃～260℃的锡铅焊料溶液中，浸入后锡液面距引出线根部距离为 10 毫米。时间：3～5 秒钟。 Soak lead wires with flux, immerse into flux at 230-260, for 3 to 5 secs.	

6. 产品包装和使用 Packing & Application

- a. 标签包含/Bable: 产品名称/Part name、批次号/Lot NO.、数量/Quantities;
- b. 塑料包装/Plastic bag: 500pcs/bag;
- c. 塑料袋包装应放入干燥剂，并抽真空，同时在产品中打上标签；/ Vacuum package;
- d. 建议采用 AWG28 套管对引线进行绝缘处理。Apply AWG28 tube for lead wire insulating。



R-T table

R at (25°C)= 10KΩ±1%

B25/50= 3950K±1%

T(°C)	Rmin(KΩ)	Rmax(KΩ)	Rnom(KΩ)	Tol.	T(°C)	Rmin(KΩ)	Rmax(KΩ)	Rnom(KΩ)	Tol.
-50	4876.007	5381.97	5128.987	4.93%	125	3.190	3.484	3.337	4.40%
-49	4689.967	5172.55	4931.261	4.89%	126	3.106	3.394	3.250	4.42%
-48	4501.400	4960.47	4730.935	4.85%	127	3.025	3.307	3.166	4.45%
-47	4298.224	4732.16	4515.190	4.81%	128	2.946	3.222	3.084	4.48%
-46	4190.088	4610.73	4400.409	4.78%	129	2.869	3.140	3.004	4.50%
-45	4039.916	4442.21	4241.061	4.74%	130	2.795	3.060	2.928	4.53%
-44	3840.574	4218.70	4029.636	4.69%	131	2.722	2.982	2.852	4.55%
-43	3649.916	4005.15	3827.532	4.64%	132	2.652	2.907	2.779	4.58%
-42	3450.364	3781.88	3616.120	4.58%	133	2.584	2.834	2.709	4.61%
-41	3282.674	3594.45	3438.564	4.53%	134	2.518	2.762	2.640	4.63%
-40	3094.953	3384.87	3239.914	4.47%	135	2.454	2.694	2.574	4.66%
-39	2900.000	3167.49	3033.747	4.41%	136	2.392	2.627	2.509	4.68%
-38	2718.832	2965.75	2842.289	4.34%	137	2.331	2.562	2.447	4.71%
-37	2550.374	2778.40	2664.386	4.28%	138	2.273	2.499	2.386	4.73%
-36	2393.645	2604.32	2498.981	4.22%	139	2.216	2.438	2.327	4.76%
-35	2247.744	2442.47	2345.107	4.15%	140	2.161	2.378	2.270	4.78%
-34	2111.847	2291.91	2201.879	4.09%	141	2.107	2.320	2.214	4.81%
-33	1985.197	2151.77	2068.484	4.03%	142	2.055	2.264	2.160	4.83%
-32	1867.100	2021.26	1944.179	3.96%	143	2.005	2.210	2.107	4.86%
-31	1756.918	1899.64	1828.281	3.90%	144	1.956	2.157	2.056	4.88%
-30	1654.065	1786.26	1720.161	3.84%	145	1.909	2.105	2.007	4.91%
-29	1556.822	1679.19	1618.004	3.78%	146	1.862	2.055	1.959	4.93%
-28	1466.020	1579.33	1522.674	3.72%	147	1.817	2.007	1.912	4.95%
-27	1381.188	1486.15	1433.669	3.66%	148	1.774	1.960	1.867	4.98%
-26	1301.893	1399.16	1350.525	3.60%	149	1.732	1.914	1.823	5.00%
-25	1227.735	1317.90	1272.816	3.54%	150	1.690	1.869	1.780	5.03%
-24	1158.347	1241.95	1200.149	3.48%	151	1.649	1.824	1.736	5.05%
-23	1093.389	1170.94	1132.164	3.42%	152	1.608	1.780	1.694	5.08%
-22	1032.548	1104.50	1068.526	3.37%	153	1.568	1.737	1.653	5.10%
-21	975.535	1042.32	1008.929	3.31%	154	1.530	1.695	1.613	5.12%
-20	922.084	984.09	953.087	3.25%	155	1.493	1.655	1.574	5.15%
-19	870.858	928.35	899.602	3.20%	156	1.457	1.615	1.536	5.17%
-18	822.846	876.16	849.504	3.14%	157	1.421	1.577	1.499	5.20%
-17	777.825	827.28	802.554	3.08%	158	1.387	1.540	1.464	5.22%
-16	735.590	781.48	758.535	3.02%	159	1.354	1.504	1.429	5.24%
-15	695.949	738.54	717.244	2.97%	160	1.322	1.469	1.395	5.27%

-14	658.725	698.26	678.493	2.91%	161	1.291	1.435	1.363	5.29%
-13	623.756	660.47	642.111	2.86%	162	1.260	1.402	1.331	5.32%
-12	590.891	624.98	607.936	2.80%	163	1.231	1.369	1.300	5.34%
-11	559.988	591.65	575.821	2.75%	164	1.202	1.338	1.270	5.36%
-10	530.918	560.34	545.627	2.70%	165	1.174	1.308	1.241	5.39%
-9	502.612	529.87	516.243	2.64%	166	1.148	1.279	1.214	5.41%
-8	476.011	501.28	488.646	2.59%	167	1.123	1.252	1.187	5.43%
-7	451.003	474.43	462.715	2.53%	168	1.098	1.225	1.162	5.45%
-6	427.481	449.20	438.339	2.48%	169	1.075	1.199	1.137	5.47%
-5	405.348	425.48	415.416	2.42%	170	1.051	1.174	1.112	5.49%
-4	385.795	404.55	395.174	2.37%	171	1.029	1.149	1.089	5.52%
-3	367.319	384.80	376.058	2.32%	172	1.007	1.125	1.066	5.54%
-2	349.855	366.14	357.998	2.27%	173	0.985	1.101	1.043	5.56%
-1	333.340	348.52	340.929	2.23%	174	0.964	1.078	1.021	5.58%
0	317.717	331.86	324.789	2.18%	175	0.944	1.056	1.000	5.60%
1	301.840	314.95	308.396	2.13%	176	0.924	1.034	0.979	5.62%
2	286.863	299.02	292.940	2.07%	177	0.905	1.013	0.959	5.64%
3	272.730	283.99	278.362	2.02%	178	0.886	0.992	0.939	5.66%
4	259.387	269.83	264.607	1.97%	179	0.867	0.972	0.920	5.68%
5	246.787	256.46	251.624	1.92%	180	0.850	0.952	0.901	5.70%
6	235.097	244.07	239.585	1.87%	181	0.831	0.932	0.882	5.73%
7	224.038	232.37	228.202	1.82%	182	0.813	0.912	0.863	5.75%
8	213.572	221.30	217.435	1.78%	183	0.795	0.893	0.844	5.77%
9	203.665	210.83	207.247	1.73%	184	0.778	0.874	0.826	5.79%
10	194.282	200.92	197.603	1.68%	185	0.762	0.856	0.809	5.81%
11	185.364	191.52	188.442	1.63%	186	0.745	0.838	0.792	5.83%
12	176.913	182.62	179.764	1.59%	187	0.730	0.820	0.775	5.86%
13	168.902	174.18	171.543	1.54%	188	0.714	0.803	0.759	5.88%
14	161.307	166.20	163.752	1.49%	189	0.699	0.787	0.743	5.90%
15	154.102	158.63	156.364	1.45%	190	0.685	0.771	0.728	5.92%
16	147.235	151.42	149.327	1.40%	191	0.670	0.755	0.713	5.94%
17	140.718	144.58	142.651	1.36%	192	0.656	0.740	0.698	5.96%
18	134.531	138.10	136.317	1.31%	193	0.643	0.725	0.684	5.98%
19	128.656	131.95	130.304	1.26%	194	0.630	0.710	0.670	6.00%
20	123.075	126.11	124.595	1.22%	195	0.617	0.696	0.656	6.02%
21	117.762	120.56	119.163	1.18%	196	0.604	0.682	0.643	6.04%
22	112.712	115.29	114.002	1.13%	197	0.592	0.668	0.630	6.06%
23	107.911	110.28	109.097	1.09%	198	0.580	0.655	0.617	6.08%
24	103.345	105.52	104.434	1.04%	199	0.568	0.642	0.605	6.10%
25	99.000	101.00	100.000	1.00%	200	0.557	0.629	0.593	6.12%

26	94.771	96.77	95.770	1.04%	201	0.545	0.617	0.581	6.14%
27	90.749	92.74	91.745	1.09%	202	0.534	0.604	0.569	6.16%
28	86.923	88.91	87.915	1.13%	203	0.523	0.592	0.557	6.18%
29	83.281	85.26	84.268	1.17%	204	0.512	0.580	0.546	6.20%
30	79.815	81.78	80.796	1.21%	205	0.502	0.569	0.535	6.22%
31	76.466	78.41	77.438	1.26%	206	0.492	0.557	0.525	6.24%
32	73.277	75.20	74.241	1.30%	207	0.482	0.546	0.514	6.26%
33	70.241	72.15	71.195	1.34%	208	0.472	0.535	0.504	6.28%
34	67.349	69.24	68.293	1.38%	209	0.463	0.525	0.494	6.30%
35	64.594	66.46	65.527	1.42%	210	0.454	0.515	0.484	6.32%
36	62.003	63.84	62.924	1.46%	211	0.445	0.505	0.475	6.34%
37	59.532	61.35	60.441	1.50%	212	0.436	0.495	0.465	6.36%
38	57.174	58.97	58.071	1.54%	213	0.427	0.485	0.456	6.38%
39	54.924	56.69	55.808	1.58%	214	0.419	0.476	0.447	6.40%
40	52.776	54.52	53.647	1.62%	215	0.411	0.467	0.439	6.42%
41	50.653	52.37	51.510	1.66%	216	0.403	0.458	0.430	6.44%
42	48.628	50.31	49.471	1.70%	217	0.395	0.449	0.422	6.46%
43	46.697	48.35	47.525	1.74%	218	0.387	0.441	0.414	6.48%
44	44.853	46.48	45.668	1.78%	219	0.380	0.433	0.406	6.50%
45	43.093	44.69	43.893	1.82%	220	0.373	0.425	0.399	6.52%
46	41.408	42.98	42.194	1.86%	221	0.365	0.417	0.391	6.54%
47	39.799	41.34	40.571	1.90%	222	0.359	0.409	0.384	6.56%
48	38.262	39.78	39.019	1.94%	223	0.352	0.401	0.377	6.57%
49	36.793	38.28	37.536	1.98%	224	0.345	0.394	0.370	6.59%
50	35.389	36.85	36.118	2.02%	225	0.339	0.387	0.363	6.61%
51	34.050	35.48	34.765	2.06%	226	0.332	0.380	0.356	6.63%
52	32.769	34.17	33.470	2.09%	227	0.326	0.373	0.349	6.65%
53	31.545	32.92	32.232	2.13%	228	0.320	0.366	0.343	6.67%
54	30.372	31.72	31.046	2.17%	229	0.314	0.359	0.337	6.69%
55	29.251	30.57	29.911	2.21%	230	0.308	0.353	0.330	6.70%
56	28.178	29.47	28.825	2.24%	231	0.303	0.346	0.324	6.72%
57	27.152	28.42	27.785	2.28%	232	0.297	0.340	0.318	6.74%
58	26.168	27.41	26.789	2.32%	233	0.292	0.334	0.313	6.76%
59	25.226	26.44	25.834	2.35%	234	0.286	0.328	0.307	6.78%
60	24.323	25.51	24.918	2.39%	235	0.281	0.322	0.301	6.80%
61	23.451	24.62	24.034	2.43%	236	0.276	0.316	0.296	6.81%
62	22.615	23.76	23.185	2.46%	237	0.271	0.311	0.291	6.83%
63	21.813	22.93	22.372	2.50%	238	0.266	0.305	0.286	6.85%
64	21.044	22.14	21.591	2.53%	239	0.261	0.300	0.281	6.87%
65	20.307	21.38	20.842	2.57%	240	0.257	0.295	0.276	6.89%

66	19.600	20.65	20.124	2.60%	241	0.252	0.289	0.271	6.90%
67	18.921	19.95	19.434	2.64%	242	0.248	0.284	0.266	6.92%
68	18.270	19.27	18.771	2.67%	243	0.243	0.280	0.261	6.94%
69	17.644	18.63	18.135	2.71%	244	0.239	0.275	0.257	6.96%
70	17.044	18.00	17.524	2.74%	245	0.235	0.270	0.252	6.97%
71	16.462	17.40	16.932	2.78%	246	0.231	0.265	0.248	6.99%
72	15.904	16.82	16.364	2.81%	247	0.227	0.261	0.244	7.01%
73	15.368	16.27	15.818	2.84%	248	0.223	0.256	0.240	7.02%
74	14.853	15.73	15.293	2.88%	249	0.219	0.252	0.236	7.04%
75	14.357	15.22	14.788	2.91%	250	0.215	0.248	0.232	7.06%
76	13.882	14.72	14.303	2.94%	251	0.211	0.244	0.227	7.08%
77	13.424	14.25	13.836	2.98%	252	0.208	0.239	0.224	7.09%
78	12.985	13.79	13.388	3.01%	253	0.204	0.235	0.220	7.11%
79	12.562	13.35	12.956	3.04%	254	0.200	0.231	0.216	7.13%
80	12.155	12.93	12.541	3.08%	255	0.197	0.227	0.212	7.15%
81	11.762	12.52	12.139	3.11%	256	0.193	0.223	0.208	7.16%
82	11.383	12.12	11.752	3.14%	257	0.190	0.219	0.205	7.18%
83	11.019	11.74	11.380	3.17%	258	0.187	0.216	0.201	7.20%
84	10.668	11.37	11.022	3.20%	259	0.184	0.212	0.198	7.22%
85	10.331	11.02	10.676	3.24%	260	0.180	0.209	0.194	7.23%
86	10.003	10.68	10.341	3.27%	261	0.177	0.205	0.191	7.25%
87	9.687	10.35	10.017	3.30%	262	0.174	0.202	0.188	7.27%
88	9.382	10.03	9.706	3.33%	263	0.171	0.198	0.185	7.28%
89	9.089	9.72	9.406	3.36%	264	0.168	0.195	0.182	7.30%
90	8.807	9.43	9.116	3.39%	265	0.166	0.192	0.179	7.32%
91	8.534	9.14	8.837	3.43%	266	0.163	0.189	0.176	7.33%
92	8.272	8.86	8.568	3.46%	267	0.160	0.185	0.173	7.35%
93	8.018	8.60	8.308	3.49%	268	0.157	0.182	0.170	7.37%
94	7.774	8.34	8.058	3.52%	269	0.155	0.179	0.167	7.38%
95	7.539	8.09	7.816	3.55%	270	0.152	0.177	0.164	7.40%
96	7.311	7.85	7.583	3.58%	271	0.150	0.174	0.162	7.42%
97	7.092	7.62	7.358	3.61%	272	0.147	0.171	0.159	7.43%
98	6.881	7.40	7.140	3.64%	273	0.145	0.168	0.156	7.45%
99	6.676	7.18	6.931	3.67%	274	0.142	0.165	0.154	7.47%
100	6.479	6.98	6.728	3.70%	275	0.140	0.163	0.151	7.48%
101	6.287	6.77	6.531	3.73%	276	0.138	0.160	0.149	7.50%
102	6.102	6.58	6.340	3.76%	277	0.136	0.158	0.147	7.51%
103	5.923	6.39	6.156	3.79%	278	0.133	0.155	0.144	7.53%
104	5.750	6.21	5.978	3.82%	279	0.131	0.153	0.142	7.55%
105	5.583	6.03	5.806	3.85%	280	0.129	0.150	0.140	7.56%

106	5.422	5.86	5.641	3.87%	281	0.127	0.148	0.138	7.58%
107	5.267	5.69	5.481	3.90%	282	0.125	0.146	0.135	7.59%
108	5.117	5.54	5.326	3.93%	283	0.123	0.143	0.133	7.61%
109	4.972	5.38	5.177	3.96%	284	0.121	0.141	0.131	7.62%
110	4.832	5.23	5.032	3.99%	285	0.119	0.139	0.129	7.64%
111	4.695	5.09	4.892	4.02%	286	0.117	0.137	0.127	7.66%
112	4.564	4.95	4.756	4.04%	287	0.116	0.135	0.125	7.67%
113	4.436	4.81	4.625	4.07%	288	0.114	0.133	0.123	7.69%
114	4.313	4.68	4.498	4.10%	289	0.112	0.131	0.121	7.70%
115	4.194	4.56	4.375	4.13%	290	0.110	0.129	0.120	7.72%
116	4.079	4.43	4.256	4.16%	291	0.109	0.127	0.118	7.73%
117	3.967	4.31	4.141	4.18%	292	0.107	0.125	0.116	7.75%
118	3.859	4.20	4.029	4.21%	293	0.105	0.123	0.114	7.76%
119	3.755	4.09	3.921	4.24%	294	0.104	0.121	0.112	7.78%
120	3.654	3.98	3.817	4.26%	295	0.102	0.119	0.111	7.79%
121	3.555	3.87	3.715	4.29%	296	0.101	0.118	0.109	7.81%
122	3.459	3.77	3.616	4.32%	297	0.099	0.116	0.108	7.82%
123	3.367	3.67	3.520	4.34%	298	0.098	0.114	0.106	7.84%
124	3.277	3.58	3.427	4.37%	299	0.096	0.113	0.104	7.85%
					300	0.095	0.111	0.103	7.87%