



久尹股份有限公司 JOYIN CO., LTD.

SPECIFICATION FOR APPROVAL

JA-225-A

CUSTOMER : 康舒科技股份有限公司

PART NO. :

JDR103F344FB

ISSUE DATE : Oct-08-2018

REV. NO :

REV. DATE :

JOYIN ENGINEERING SIGNATURE

EDITED BY Nico.Kuo

CHECKED BY 游鵬

APPROVED BY 黃

CUSTOMER RESPONSE

- ☐ Approval
- ☐ Approval with the following change
- ☐ Reject with the following reasons

CUSTOMER SIGNATURE

DATE

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久尹股份有限公司
JOYIN CO., LTD.

NTC Thermistor JDR Type

Edition : JDR103F344FB

REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT



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Part Number Code

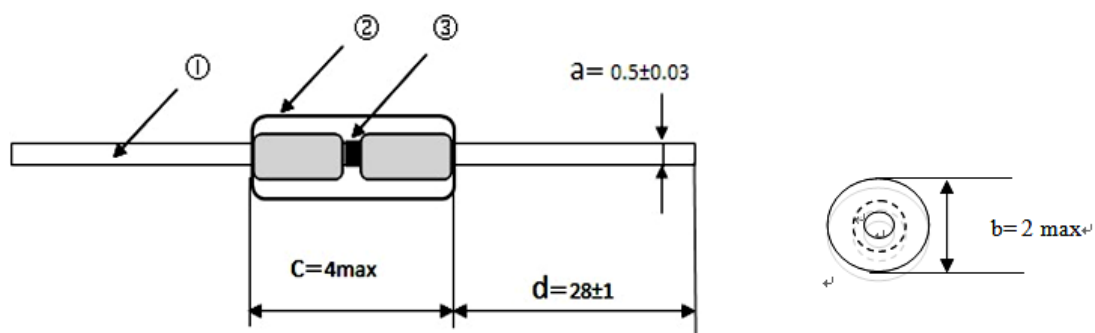
JDR 103 F 344 F B
(1) (2) (3) (4) (5) (6)

No.	Item	Digit	Specification
(1)	Product Type	JDR	JOYIN NTC Thermistor JDR type
(2)	Resistance at 25°C	103	$10 \times 10^3 = 10K \Omega$
(3)	Tolerance of R25°C	F	±1 %
(4)	B Value	344	3435 K
(5)	Tolerance of B Value	F	±1 %
(6)	Definition of B Value	B	B25/85



Structure and Dimensions

單位：mm



Item	1	2	3
Part Name	Tin-plating wire	Glass shell	Thermistor Chip

Electrical Characteristics

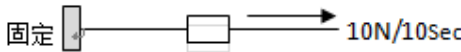
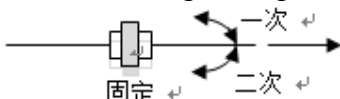
Part No.	Zero Power Resistance at 25°C	Tolerance of R_{25}	B25/85 Value	Tolerance of B Value	Max. Power Rating at 25°C
	$R_{25}(\text{K}\Omega)$	($\pm$ %)	(K)	($\pm$ %)	$P_{\text{max}}(\text{mW})$
JDR103F344FB	10	1	3435	1	50

Part No.	Dissipation Factor	Thermal Time Constant	Operating Temperature Range
	$\delta (\text{mW}/^{\circ}\text{C})$	$\tau (\text{sec.})$	$T_L \sim T_U (^{\circ}\text{C})$
JDR103F344FB	Approx. 2	Approx. 12	-40 ~ +250 *

* Tin-lead surface can withstand only 150 °C

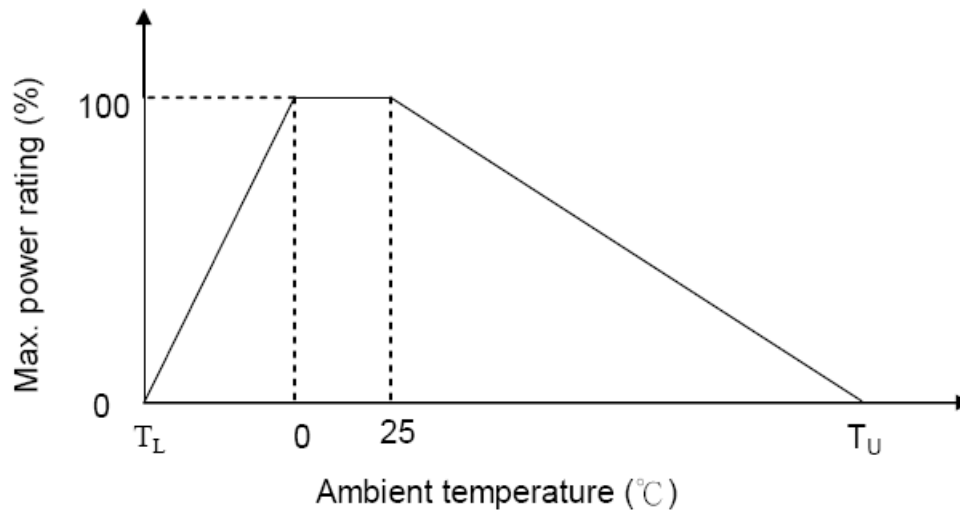


Reliability

Item	Standard	Test conditions/Methods	Specifications																		
Solderability	IEC60068-2-20	The lead wire shall be dipped into solder bath of 245±5℃ for 2±0.5S.	more than 95% solderability																		
Soldering heat	IEC60068-2-20	The lead wire shall be dipped into solder bath of 260±5℃ for 10±1S with 2-2.5mm space from the body, then be returned to and stabilized at room ambient.	No visible damage ΔR25≤±3%																		
Lead full strength	IEC60068-2-21	Test Ua: Pull 10N,lasting 10S;  Test Ub: Bending 90 degree, pull 5N,twice; 	No visible damage ΔR25≤±3%																		
High Temperature Storage	IEC60068-2-2	200±5℃,1000±24hrs	No visible damage ΔR25≤±3%																		
Low Temperature Storage	IEC60068-2-1	-40±5℃,1000±24hrs	No visible damage ΔR25≤±3%																		
Damp Heat Steady State	IEC600688-2-3	40±2℃ , 90~95% RH, 1000±24hrs	No visible damage ΔR25≤±3%																		
Rapid Change of Temperature	IEC60068-2-14	<table><tr><td colspan="3">The conditions shown below shall be repeated 5 cycles</td></tr><tr><td>Step</td><td>Temperature (℃)</td><td>Period (minutes)</td></tr><tr><td>1</td><td>-30±5</td><td>30±3</td></tr><tr><td>2</td><td>Room temperature</td><td>5±3</td></tr><tr><td>3</td><td>200±5</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>5±3</td></tr></table>	The conditions shown below shall be repeated 5 cycles			Step	Temperature (℃)	Period (minutes)	1	-30±5	30±3	2	Room temperature	5±3	3	200±5	30±3	4	Room temperature	5±3	No visible damage ΔR25≤±3%
The conditions shown below shall be repeated 5 cycles																					
Step	Temperature (℃)	Period (minutes)																			
1	-30±5	30±3																			
2	Room temperature	5±3																			
3	200±5	30±3																			
4	Room temperature	5±3																			
Insulation Resistance		500V DC ,60sec	≥100MΩ																		



Power Derating Curve



Note : T_L = Minimum operating temperature (°C)
 T_U = Maximum operating temperature (°C)

RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2002/95/EC

Storage condition of products

(I) Storage Conditions :

- 1.Storage Temperature : -10 ~ +40°C
- 2.Relative Humidity : $\leq 75\%RH$
- 3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year



R-T TABLE

Part No : JDR103F344FB

R25 = 10 KOhm $\pm$ 1%

B25/85 = 3435K $\pm$ 1%

Temp. °C	R min KΩ	R nor. KΩ	R max KΩ	Temp. °C	R min KΩ	R nor. KΩ	R max KΩ
-40	193.596	201.514	209.734	-7	37.068	37.945	38.839
-39	183.494	190.895	198.575	-6	35.419	36.240	37.077
-38	173.966	180.886	188.061	-5	33.852	34.622	35.405
-37	164.978	171.448	178.154	-4	32.365	33.085	33.818
-36	156.496	162.547	168.815	-3	30.952	31.626	32.313
-35	148.491	154.150	160.009	-2	29.609	30.241	30.883
-34	140.932	146.226	151.704	-1	28.332	28.924	29.525
-33	133.794	138.747	143.869	0	27.118	27.672	28.235
-32	127.051	131.686	136.476	1	25.963	26.482	27.009
-31	120.680	125.017	129.498	2	24.865	25.350	25.843
-30	114.659	118.718	122.909	3	23.819	24.274	24.735
-29	108.800	112.592	116.505	4	22.824	23.250	23.681
-28	103.272	106.816	110.470	5	21.876	22.275	22.678
-27	98.056	101.367	104.780	6	20.974	21.347	21.724
-26	93.131	96.226	99.414	7	20.114	20.463	20.816
-25	88.481	91.374	94.353	8	19.294	19.621	19.951
-24	84.089	86.794	89.577	9	18.513	18.819	19.128
-23	79.940	82.469	85.070	10	17.769	18.054	18.343
-22	76.018	78.384	80.815	11	17.058	17.326	17.595
-21	72.312	74.524	76.796	12	16.381	16.631	16.883
-20	68.806	70.876	73.000	13	15.734	15.968	16.203
-19	65.491	67.427	69.414	14	15.117	15.336	15.555
-18	62.354	64.166	66.024	15	14.528	14.732	14.937
-17	59.386	61.081	62.819	16	13.966	14.156	14.347
-16	56.576	58.163	59.788	17	13.429	13.606	13.785
-15	53.915	55.400	56.920	18	12.915	13.081	13.247
-14	51.395	52.785	54.207	19	12.425	12.579	12.734
-13	49.007	50.309	51.639	20	11.956	12.100	12.244
-12	46.744	47.963	49.208	21	11.507	11.641	11.775
-11	44.599	45.740	46.905	22	11.078	11.203	11.328
-10	42.565	43.633	44.723	23	10.668	10.784	10.900
-9	40.636	41.636	42.656	24	10.276	10.383	10.491
-8	38.805	39.742	40.697	25	9.900	10.000	10.100



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B25/85 = 3435K $\pm$ 1%

Temp. °C	R min KΩ	R nor. KΩ	R max KΩ	Temp. °C	R min KΩ	R nor. KΩ	R max KΩ
26	9.527	9.627	9.727	59	3.053	3.120	3.188
27	9.171	9.271	9.371	60	2.959	3.025	3.091
28	8.831	8.930	9.030	61	2.868	2.933	2.998
29	8.506	8.605	8.704	62	2.780	2.844	2.909
30	8.194	8.293	8.391	63	2.696	2.758	2.822
31	7.897	7.994	8.092	64	2.614	2.676	2.738
32	7.611	7.708	7.806	65	2.535	2.596	2.657
33	7.339	7.435	7.531	66	2.459	2.519	2.579
34	7.077	7.172	7.268	67	2.386	2.444	2.504
35	6.827	6.921	7.016	68	2.315	2.372	2.431
36	6.586	6.680	6.774	69	2.247	2.303	2.360
37	6.356	6.449	6.542	70	2.180	2.236	2.292
38	6.135	6.227	6.319	71	2.117	2.171	2.226
39	5.923	6.014	6.105	72	2.055	2.108	2.163
40	5.720	5.809	5.899	73	1.995	2.048	2.101
41	5.525	5.613	5.702	74	1.938	1.989	2.042
42	5.337	5.424	5.512	75	1.882	1.932	1.984
43	5.157	5.243	5.330	76	1.828	1.878	1.928
44	4.984	5.069	5.154	77	1.776	1.825	1.875
45	4.818	4.901	4.986	78	1.726	1.773	1.822
46	4.658	4.740	4.824	79	1.677	1.724	1.772
47	4.504	4.585	4.668	80	1.630	1.676	1.723
48	4.356	4.436	4.517	81	1.584	1.629	1.676
49	4.214	4.293	4.373	82	1.540	1.584	1.630
50	4.077	4.155	4.234	83	1.497	1.541	1.586
51	3.946	4.022	4.099	84	1.456	1.499	1.543
52	3.819	3.894	3.970	85	1.416	1.458	1.501
53	3.697	3.771	3.846	86	1.377	1.419	1.461
54	3.579	3.652	3.726	87	1.340	1.380	1.422
55	3.466	3.538	3.610	88	1.303	1.343	1.384
56	3.357	3.428	3.499	89	1.268	1.307	1.347
57	3.252	3.321	3.392	90	1.234	1.272	1.312
58	3.151	3.219	3.288	91	1.201	1.239	1.277



R-T TABLE

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R25 = 10 KOhm $\pm$ 1%

B25/85 = 3435K $\pm$ 1%

Temp. °C	R min KΩ	R nor. KΩ	R max KΩ	Temp. °C	R min KΩ	R nor. KΩ	R max KΩ
92	1.169	1.206	1.244	125	0.51	0.533	0.554
93	1.138	1.174	1.212	126	0.50	0.520	0.541
94	1.108	1.144	1.180	127	0.49	0.509	0.529
95	1.079	1.114	1.150	128	0.48	0.497	0.518
96	1.051	1.085	1.120	129	0.47	0.486	0.506
97	1.023	1.057	1.092	130	0.46	0.475	0.495
98	0.997	1.030	1.064	131	0.45	0.465	0.484
99	0.971	1.004	1.037	132	0.44	0.455	0.474
100	0.946	0.978	1.011	133	0.43	0.445	0.463
101	0.922	0.953	0.986	134	0.42	0.435	0.453
102	0.898	0.929	0.961	135	0.41	0.426	0.444
103	0.875	0.906	0.937	136	0.399	0.416	0.434
104	0.853	0.883	0.914	137	0.391	0.407	0.425
105	0.832	0.861	0.891	138	0.382	0.399	0.416
106	0.811	0.840	0.869	139	0.374	0.390	0.407
107	0.791	0.819	0.848	140	0.366	0.382	0.399
108	0.771	0.799	0.828	141	0.358	0.374	0.390
109	0.752	0.780	0.808	142	0.351	0.366	0.382
110	0.734	0.761	0.788	143	0.343	0.358	0.374
111	0.716	0.742	0.769	144	0.336	0.351	0.366
112	0.698	0.724	0.751	145	0.329	0.344	0.359
113	0.681	0.707	0.733	146	0.322	0.337	0.352
114	0.665	0.690	0.716	147	0.315	0.330	0.345
115	0.649	0.674	0.699	148	0.309	0.323	0.338
116	0.633	0.658	0.682	149	0.303	0.316	0.331
117	0.618	0.642	0.666	150	0.296	0.310	0.324
118	0.604	0.627	0.651	151	0.290	0.303	0.317
119	0.589	0.612	0.636	152	0.284	0.297	0.311
120	0.576	0.598	0.621	153	0.278	0.291	0.304
121	0.562	0.584	0.607	154	0.272	0.285	0.298
122	0.549	0.571	0.593	155	0.266	0.279	0.292
123	0.536	0.558	0.580	156	0.261	0.273	0.286
124	0.524	0.545	0.567	157	0.255	0.267	0.280



R-T TABLE

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R25 = 10 KOhm $\pm$ 1%

B25/85 = 3435K $\pm$ 1%

Temp. °C	R min KΩ	R nor. KΩ	R max KΩ	Temp. °C	R min KΩ	R nor. KΩ	R max KΩ
158	0.250	0.262	0.274	191	0.129	0.136	0.143
159	0.245	0.256	0.268	192	0.126	0.133	0.141
160	0.240	0.251	0.263	193	0.124	0.131	0.138
161	0.234	0.246	0.258	194	0.122	0.129	0.136
162	0.230	0.241	0.252	195	0.119	0.126	0.133
163	0.225	0.236	0.247	196	0.117	0.124	0.131
164	0.220	0.231	0.242	197	0.115	0.122	0.128
165	0.216	0.226	0.237	198	0.113	0.119	0.126
166	0.211	0.222	0.233	199	0.111	0.117	0.124
167	0.207	0.217	0.228	200	0.109	0.115	0.121
168	0.203	0.213	0.224	201	0.107	0.113	0.119
169	0.199	0.209	0.219	202	0.105	0.111	0.117
170	0.195	0.205	0.215	203	0.103	0.109	0.115
171	0.191	0.201	0.211	204	0.101	0.107	0.113
172	0.187	0.197	0.206	205	0.099	0.105	0.111
173	0.183	0.193	0.202	206	0.098	0.103	0.109
174	0.180	0.189	0.199	207	0.096	0.101	0.107
175	0.176	0.185	0.195	208	0.094	0.100	0.105
176	0.173	0.182	0.191	209	0.092	0.098	0.103
177	0.169	0.178	0.187	210	0.091	0.096	0.102
178	0.166	0.175	0.184	211	0.089	0.094	0.100
179	0.163	0.171	0.180	212	0.087	0.093	0.098
180	0.159	0.168	0.177	213	0.086	0.091	0.096
181	0.156	0.165	0.173	214	0.084	0.089	0.095
182	0.153	0.161	0.170	215	0.083	0.088	0.093
183	0.150	0.158	0.167	216	0.082	0.086	0.092
184	0.147	0.155	0.164	217	0.080	0.085	0.090
185	0.145	0.152	0.161	218	0.079	0.083	0.088
186	0.142	0.150	0.157	219	0.077	0.082	0.087
187	0.139	0.147	0.154	220	0.076	0.081	0.085
188	0.137	0.144	0.152	221	0.075	0.079	0.084
189	0.134	0.141	0.149	222	0.073	0.078	0.082
190	0.131	0.139	0.146	223	0.072	0.077	0.081



Edition : JDR103F344FB

APPENDIX : 5

Part No : JDR103F344FB

$$R_{25} = 10 \text{ K}\Omega \pm 1\%$$
$$B_{25/85} = 3435K \pm 1\%$$
[illegible]