

产品承认书

PRODUCT SPECIFICATION FOR APPROVAL

客户名称 CUSTOMER NAME	
客户料号 P/N OF CUSTOMER	
承认字号 APPROVAL NO.	
产品名称 PRODUCT NAME	贴片型负温度系数热敏电阻 CHIP TYPE NTC THERMISTOR
规格型号 TYPE SPECIFICATION	SNC333B ₂ 3950J0603E
承认书版本号 APPROVAL SHEET VERSION	1.0
承认日期 DATE OF APPROVAL	

供 应 商 SUPPLIER		
制定 DESIGNED	审核 CHECKED	批准 APPROVED
供应商品管部印鉴 SUPPLIER QA SEAL		

客 户 CUSTOMER		
检验 INSPECTED	审核 CHECKED	批准 APPROVED
客户承认印鉴 CUSTOMER APPROVAL SEAL		



修订履历

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1、规格型号 PART IDENTIFICATION

SN C 333 B₂ 3950 F 0402 E W
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨

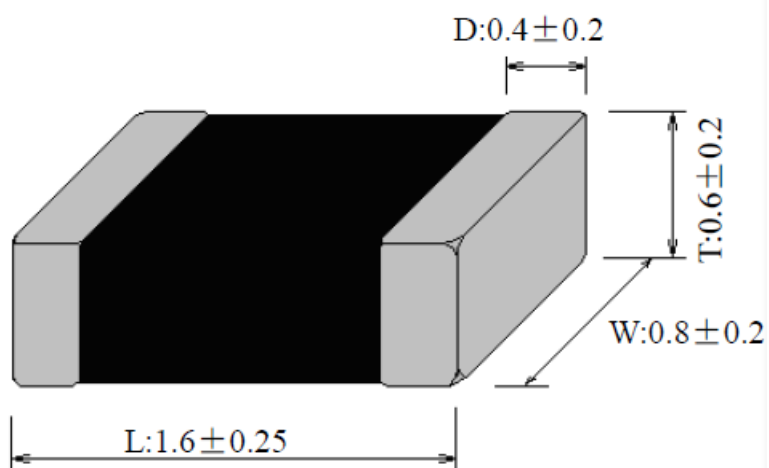
① 产品类别 PART NUMBER ENTIFICATION	SN指贴片型负温度系数热敏电阻
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值（25℃零功率电阻值） PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	333指33KΩ
	333 MEANS 33 KΩ
④ B 值代码 B-VALUE CODE	B2指 25/85
	B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3950指B值为3950K
	3950 MEANS THAT B VALUE IS 3950K
⑥ 阻值误差 PACKAGING STYLE	J指±5%
	J REFERS TO ±5%
⑦ 本体尺寸 BODY SIZE	0603指2.2图所示尺寸
	0603 REFERS TO THE SIZE SHOWN IN FIGURE 2.2
⑧ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保产品。
	E STANDS FOR ENVIRONMENTALLY FRIENDLY PRODUCTS.

2、产品特性 PRODUCTION FEATURES

2.1 技术参数 TECHNICAL PARAMETER

型号规格 SPECIFICATION AND MODEL	额定零功率电阻值 RATED ZERO POWER RESISTANCE VALUE	B (K)	耗散系数 DISSIPATION COEFFICIENT (S)	热时间常数 THERMAL TIME CONSTANT (S)	额定功率 RATED POWER (mw)	工作温度范围 (°C)
SNC333B3950J0603E	33K	3950	≥ 2	≤ 3	200	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

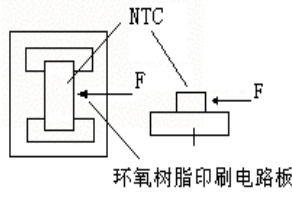
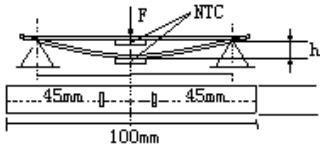
3、检验规则 INSPECTION REGULATIONS

3.1 出厂检验 DELIVERY INSPECTION

序号 SEQUENCE	检测项目 TEST ITEM	检验方法 INSPECTION METHOD	性能要求 PERFORMANCE REQUIREMENT
(1)	R ₂₅	将待测品置于 25℃高精度油槽内稳定后 测量 THE PRODUCT TO BE MEASURED IS PLACED IN A 25℃ HIGH PRECISION OIL TANK FOR STABILITY	33KΩ±5%
(2)	B _{25/85}	将待测品置于25℃、85℃精度油槽内稳 定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A 25℃, 85℃ PRECISION OIL TANK AND THEN MEASURED	3950K±3%
(3)	外观 APPEARANCE	在20X的显微镜下目测检查 VISUAL INSPECTION UNDER A 20X MICROSCOPE	产品符合2.2的外形要求，无腐蚀、 流挂、断片、崩边崩角等 THE PRODUCTS MEET THE REQUIREMENTS OF 2.2 SHAPE, NO CORROSION, FLOW HANGING, FRAGMENTATION, EDGE BREAKAGE, ETC
(4)	尺寸 DIMENSION	用精度不小于0.01mm的游标卡尺测量 MEASURE WITH VERNIER CALIPER WITH ACCURACY NOT LESS THAN 0.01MM	符合2.2的外形尺寸 CONFORM TO THE DIMENSIONS OF 2.2
(5)	可焊性 WELDABILITY	焊接温度 WELDING TEMPERATURE: 245± 5℃; 浸入时间 IMMERSION TIME: 3±1s	着锡面积 TIN AREA≥95%

(6)	耐焊性 WELDING RESISTANCE	焊接温度 WELDING TEMPERATURE: $260 \pm 10^{\circ}\text{C}$ 浸入时间 IMMERSION TIME: $10 \pm 1\text{s}$	无外观损伤, 着锡面积 $\geq 75\%$ NO APPEARANCE DAMAGE, TIN AREA $\geq 75\%$ $ \Delta R_{25}/R_{25} \leq 5\%$
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3.2 型式检验 PATTERN INSPECTION

序号 SEQUENCE	检验项目 ITEMS	检验标准 STANDARD	检验标准 STANDARD	性能要求 PERFORMANCE REQUIREMENTS
(1)	端头强度 END STRENGTH	IEC68-2-21	 F: 0603 ≥ 8N	无外观损伤 NO COSMETIC DAMAGE
(2)	抗弯强度 BENDING STRENGTH	IEC68-2-21	 h: 1 ± 0.1mm	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25} / R_{25}$ ≤ 3%
(3)	跌落 FALL	IEC68-2-32	跌落高度 DROP HEIGHT: 1.0 ± 0.1m 跌落次数 NUMBER OF DROPS: 1 跌落面 DROP SURFACE: 水泥 CEMENT	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25} / R_{25}$ ≤ 1% $\Delta B / B$ ≤ 2%
(4)	湿热负载 DAMP-HEAT LOAD	IEC68-2-2/IEC68-2-3/CNS5550	温度 TEMPERATURE: 40 ± 2°C 湿度 HUMIDNESS: 90~95%RH 时间 TIME: 500 ± 12h; 工作电流 WORKING CURRENT	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25} / R_{25}$ ≤ 5% $\Delta B / B$ ≤ 2%
(5)	高温存储 HIGH TEMPERATURE STORAGE	IEC68-2-2/CNS5550	温度 TEMPERATURE: 125 ± 2°C 时间 TIME: 1000 ± 24h	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25} / R_{25}$ ≤ 5% $\Delta B / B$ ≤ 2%
(6)	冷热冲击 THERMAL SHOCK	IEC68-2-14	温度 TEMPERATURE: -40 ± 125°C; 周期 PERIOD: 100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25} / R_{25}$ ≤ 5% $\Delta B / B$ ≤ 2%
(7)	低温存储 LOW TEMPERATURE	IEC68-2-1	温度 TEMPERATURE: -40 ± 2°C 时间 TIME: 1000 ± 24h	无外观损伤 NO COSMETIC DAMAGE

	STORAGE			$ \Delta R_{25}/R_{25} \leq 2\%$ $ \Delta B/B \leq 2\%$
(8)	耐久性 DURABILITY	UL1434	环境温度 ENVIRONMENT TEMPERATURE: $25 \pm 2^\circ\text{C}$ 工作电流 WORKING CURRENT 周期 PERIOD: 6000	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$

4、包装、贮存 PACKAGE & STORAGE

4.1 包装 PACKAGE

序号 SEQUENCE	包装方式 PACKAGING	包装材料、尺寸 PACKAGING MATERIAL & DIMENSION	产品数量 QUANTITY OF PRODUCT
(1)	编带 BRAID	0603纸带, 标准带轮 0603 PAPER TAPE, STANDARD PULLEY	4000PCS
(2)	内包装盒 INNER BOX	纸箱CARTON, L×W×H=185mm×70mm×190mm	
(3)	外包装箱 OUTER PACKING BOX	纸箱CARTON, L×W×H=370mm×205mm×215mm	

4.2 贮存 STORAGE

产品密封保存, 存放产品的产库环境温度-10℃~+40℃、相对湿度不大于70%, 仓库内不允许有各种有害气体、易爆的产品及腐蚀性的化学物品, 并且无强烈的机械振动、冲击和强辐射的作用, 包装箱应垫高地面至少20cm, 距离墙壁、热源、冷源、窗口或空气入口至少50cm。

- THIS PRODUCT MUST BE KEPT SEALED.
- STORE IN AN ORDINARY ENVIRONMENT (NORMAL ROOM TEMPERATURE, HUMIDITY AND ATMOSPHERIC PRESSURE).
- STORAGE TEMPERATURE: -10℃~+40℃
- RELATIVE HUMIDITY: ≤70%RH.
- KEEP AWAY FROM CORROSIVE GASES, DEOXIDIZING GAS, FLAMMABLE GAS OR DIRECT SUNLIGHT.
- AVOID STRONG MECHANICAL VIBRATION, SHOCK.
- THE PACKING BOX SHOULD BE RAISED AT LEAST 20CM ABOVE THE GROUND AND AT LEAST 50CM AWAY FROM THE WALL, HEAT SOURCE, COLD SOURCE, WINDOWS OR AIR INLET.
- ABNORMAL STORAGE AND OPERATING CONDITIONS MAY CAUSE MALFUNCTION FUNCTION OR FAILURE OF OUR PRODUCTS.

5、电阻 – 温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE

$R_{25}=33K\Omega\pm5\%$
 $B_{25/50}=3950K\pm3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	1006.8176	1179.8494	1379.1619	-1	104.1887	113.8225	124.0364
-39	941.5014	1101.0215	1284.3505	0	99.0952	108.0905	117.6075
-38	880.9005	1028.0355	1196.7466	1	94.2831	102.6833	111.5523
-37	824.6421	960.4180	1115.7528	2	89.7349	97.5806	105.8469
-36	772.3852	897.7376	1040.8252	3	85.4347	92.7634	100.4690
-35	723.8179	839.6001	971.4681	4	81.3675	88.2142	95.3978
-34	678.6545	785.6453	907.2295	5	77.5193	83.9163	90.6141
-33	636.6334	735.5440	847.6973	6	73.8770	79.8545	86.0998
-32	597.5147	688.9949	792.4948	7	70.4285	76.0144	81.8383
-31	561.0784	645.7225	741.2781	8	67.1621	72.3826	77.8139
-30	527.1226	605.4740	693.7328	9	64.0674	68.9467	74.0121
-29	495.4619	568.0180	649.5714	10	61.1342	65.6948	70.4191
-28	465.9259	533.1423	608.5304	11	58.3532	62.6161	67.0225
-27	438.3579	500.6519	570.3689	12	55.7156	59.7004	63.8102
-26	412.6138	470.3681	534.8658	13	53.2133	56.9381	60.7713
-25	388.5609	442.1264	501.8186	14	50.8384	54.3202	57.8955
-24	366.0770	415.7758	471.0412	15	48.5838	51.8385	55.1729
-23	345.0496	391.1774	442.3630	16	46.4428	49.4850	52.5946
-22	325.3748	368.2032	415.6273	17	44.4089	47.2523	50.1522
-21	306.9569	346.7355	390.6899	18	42.4762	45.1337	47.8377
-20	289.7074	326.6658	367.4182	19	40.6390	43.1226	45.6437
-19	273.5447	307.8941	345.6904	20	38.8922	41.2130	43.5632
-18	258.3934	290.3281	325.3941	21	37.2308	39.3992	41.5898
-17	244.1838	273.8828	306.4259	22	35.6501	37.6759	39.7173
-16	230.8512	258.4794	288.6905	23	34.1458	36.0380	37.9400
-15	218.3361	244.0454	272.1000	24	32.7137	34.4808	36.2526
-14	206.5831	230.5136	256.5732	25	31.3500	33.0000	34.6500
-13	195.5410	217.8221	242.0353	26	29.9725	31.5913	33.2143
-12	185.1624	205.9133	228.4172	27	28.6634	30.2509	31.8464
-11	175.4033	194.7341	215.6548	28	27.4191	28.9750	30.5427
-10	166.2228	184.2353	203.6891	29	26.2358	27.7603	29.2999
-9	157.5831	174.3712	192.4655	30	25.1104	26.6034	28.1147
-8	149.4489	165.0997	181.9334	31	24.0396	25.5013	26.9842
-7	141.7876	156.3813	172.0459	32	23.0205	24.4511	25.9056
-6	134.5688	148.1798	162.7596	33	22.0504	23.4500	24.8762
-5	127.7642	140.4613	154.0343	34	21.1266	22.4956	23.8935
-4	121.3475	133.1945	145.8327	35	20.2467	21.5854	22.9551
-3	115.2943	126.3502	138.1202	36	19.4083	20.7171	22.0589
-2	109.5817	119.9013	130.8647	37	18.6093	19.8886	21.2026

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
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38	17.8476	19.0978	20.3844	82	3.5141	3.9425	4.4121
39	17.1213	18.3428	19.6022	83	3.4010	3.8193	4.2783
40	16.4286	17.6218	18.8544	84	3.2922	3.7005	4.1492
41	15.7676	16.9331	18.1392	85	3.1873	3.5860	4.0246
42	15.1369	16.2751	17.4551	86	3.0862	3.4756	3.9043
43	14.5349	15.6463	16.8005	87	2.9889	3.3691	3.7882
44	13.9600	15.0451	16.1741	88	2.8950	3.2663	3.6761
45	13.4110	14.4704	15.5744	89	2.8046	3.1672	3.5678
46	12.8866	13.9207	15.0001	90	2.7174	3.0716	3.4633
47	12.3855	13.3948	14.4502	91	2.6333	2.9793	3.3622
48	11.9065	12.8916	13.9233	92	2.5522	2.8901	3.2647
49	11.4487	12.4101	13.4185	93	2.4740	2.8041	3.1703
50	11.0108	11.9490	12.9347	94	2.3985	2.7210	3.0792
51	10.5921	11.5076	12.4709	95	2.3257	2.6408	2.9911
52	10.1915	11.0848	12.0262	96	2.2555	2.5633	2.9059
53	9.8081	10.6797	11.5998	97	2.1876	2.4885	2.8236
54	9.4412	10.2916	11.1906	98	2.1222	2.4161	2.7439
55	9.0899	9.9197	10.7981	99	2.0590	2.3462	2.6669
56	8.7536	9.5631	10.4214	100	1.9979	2.2787	2.5923
57	8.4314	9.2212	10.0598	101	1.9390	2.2133	2.5202
58	8.1227	8.8933	9.7126	102	1.8820	2.1502	2.4505
59	7.8270	8.5787	9.3792	103	1.8270	2.0891	2.3829
60	7.5435	8.2769	9.0590	104	1.7738	2.0301	2.3176
61	7.2718	7.9873	8.7513	105	1.7224	1.9730	2.2543
62	7.0112	7.7093	8.4557	106	1.6728	1.9177	2.1930
63	6.7613	7.4424	8.1716	107	1.6248	1.8643	2.1337
64	6.5216	7.1861	7.8984	108	1.5783	1.8125	2.0762
65	6.2916	6.9399	7.6358	109	1.5334	1.7624	2.0206
66	6.0709	6.7034	7.3833	110	1.4900	1.7140	1.9667
67	5.8590	6.4761	7.1404	111	1.4480	1.6671	1.9144
68	5.6556	6.2577	6.9067	112	1.4074	1.6216	1.8638
69	5.4602	6.0478	6.6818	113	1.3681	1.5776	1.8147
70	5.2726	5.8459	6.4653	114	1.3300	1.5350	1.7672
71	5.0924	5.6518	6.2570	115	1.2932	1.4938	1.7211
72	4.9192	5.4651	6.0564	116	1.2576	1.4538	1.6763
73	4.7527	5.2855	5.8632	117	1.2231	1.4150	1.6330
74	4.5928	5.1126	5.6772	118	1.1897	1.3775	1.5910
75	4.4389	4.9463	5.4979	119	1.1573	1.3411	1.5502
76	4.2910	4.7862	5.3252	120	1.1260	1.3058	1.5106
77	4.1488	4.6321	5.1588	121	1.0956	1.2716	1.4722
78	4.0119	4.4837	4.9984	122	1.0662	1.2385	1.4350
79	3.8802	4.3407	4.8437	123	1.0377	1.2063	1.3988
80	3.7535	4.2030	4.6946	124	1.0101	1.1752	1.3638
81	3.6315	4.0704	4.5508	125	0.9833	1.1449	1.3297