

Product Specification

Number: EKTB333J4050FANT
Name: CHIP NTC THERMISTOR
Specification: _____
Customer: B36
Date: 2020-01-13

Customer Signature:



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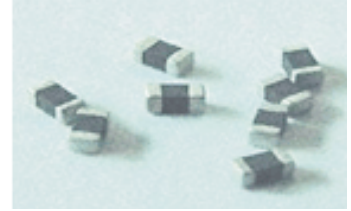
Compile	Check	Review	Approval
Jenny	Jack.C		

■ 片式負溫度系數熱敏電阻器

CHIP NTC THERMISTOR

片式NTCR具有無引綫、片狀化、體積小、響應快等特點。它的瓷體表面采用了玻璃層作保護，同時端頭電極進行了可靠的三層電鍍工藝，實現片式NTC產品優良的焊接性能、高可靠的品質特性。

The chip NTC thermistor has the features of miniature Size, no-lead, quick temperature response. The product's ceramic body are coated with glass. The termination has been carried on craft of electroplating of three layers, suit for reflow and flow solder. Has the high reliability.



• 特征 FEATURES

- 體積小,適合高密度表面貼裝。
- 玻璃釉包覆保護,精度高、阻值漂移小。
- 優良的焊接性和耐焊性,適合波峰焊及再流焊。
- Miniature size, suitable for SMT.
- Porcelain body and glass glaze.
- Excellent in solderability and heat resistance; ideal for wave or re-flow soldering.

• 應用 APPLICATIONS

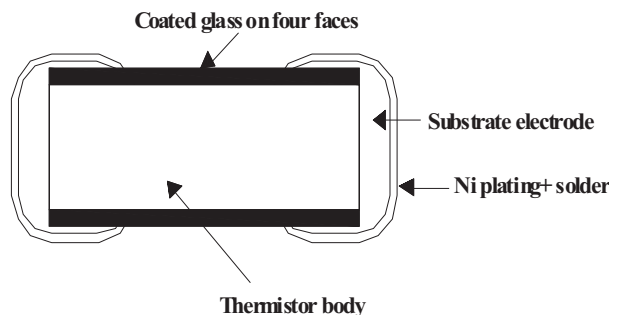
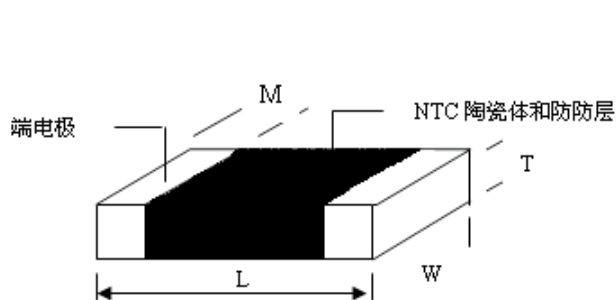
- 可充電電池、CPU的溫度探測。
- IC、LCD、石英振蕩器的溫度補償。
- 需溫度補償和探測的各種電路。
- Temperature Sensing in rechargeable batteries and CPU.
- Temperature compensation in IC, LCD, Crystal oscillator and so on.
- Temperature compensation or temperature sensing for various types of circuits.

• 規格型號表示方法 ORDERING CODE

EKT B 333 J 4050 F A N T
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	②		③	④		⑤	⑥		⑦		⑧	⑨
產品代號 Code	規格尺寸 Dimensions (L×W)(mm)		標稱阻值 R25 (Ω) Rated resistance	阻值誤差 (%) Tolerance		材料常數 B值 (K) Material constant	B值精度 代碼 (%)		B值溫度 代碼 (°C/°C)		端電極 Termina Electrode1	包裝方式 Packaging Style
EKT	D	1.0×0.5	33000	F	±1	直接讀數 4050	F	±1	A	25/50	端電極材料 代號: N為 三層電鍍	T卷帶盤裝 Tape&Reel
片式 負溫度系數 熱敏電阻器 Chip NTC Thermistor	A	1.6×0.8	前二位為有效數字, 第三位表示有效數字后“0”的個數	G	±2		G	±2	B	25/85		
	B	2.0×1.2		H	±3		H	±3	C	0/25		
	C	3.2×1.6		J	±5		J	±5	D	0/50		
				K	±10				E	0/100		B 散裝 Bulk

• 外形尺寸 SHAPE AND DIMENSIONS



• 尺寸規格 Dimension

單位(Unit): mm/inch

尺寸規格 Dimension		L (長)	W (寬)	T (厚) max.	M (端頭寬)
0402	公制 (mm)	1.00±0.15	0.50±0.10	0.60	0.25±0.10
	英制 (inch)	0.040±0.006	0.020±0.004	0.024	0.010±0.004
0603	公制 (mm)	1.60±0.15	0.80±0.15	0.95	0.30±0.15
	英制 (inch)	0.063±0.006	0.031±0.006	0.037	0.012±0.006
0805	公制 (mm)	2.00±0.20	1.25±0.20	0.95	0.50±0.20
	英制 (inch)	0.080±0.008	0.050±0.008	0.037	0.020±0.008
1206	公制 (mm)	3.20±0.20	1.60±0.20	1.25	0.50±0.20
	英制 (inch)	0.126±0.008	0.063±0.008	0.050	0.020±0.008

• 電性能參數 ELECTRICAL CHARACTERISTICS

0805 Series

規格型號 TYPE	R ₂₅ (KΩ)	B _(25/50°C) (K)
EKTB333J4050FANT	33	4050

• 可靠性測試 Reliability Testing

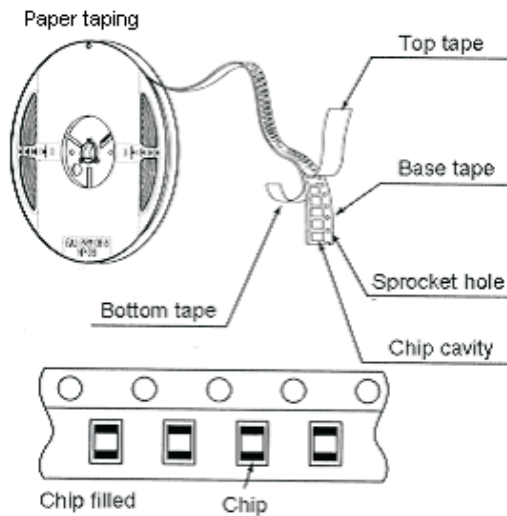
項目 Item	標準 Specified value	測試方法 Test methods									
可焊性 Solder ability	至少90%端電極表面被焊錫覆蓋。 At least 90%of termalelectrode should be covered with solder. 無機械損傷 No mechanical damage.	浸入松香助焊劑約 Immersion into the colophony flux for:2sec. 焊錫溫度 Solder temperature:255±5℃ 焊錫時間 Duration:5±0.5s									
耐焊性 Resistance to Soldering	至少75%焊錫覆蓋在端電極表面。 At least 75%of termalelectrode should be covered with solder. R ₂₅ 變化率小于 Resistance value change within ±5%	預熱溫度 Preheating temperature:100~150℃ 預熱時間 Preheating time:60s 浸錫溫度 Solder temperature:285±5℃ 浸錫時間 Duration:10±0.5s									
耐低溫 Low temperature	無機械損傷 No mechanical damage. R ₂₅ 變化率小于 ±5% Resistance value change:within ±5% B值 (B _{25/50}) 變化率小于 ±2% B value change within ±2%	測試溫度 Temperature:-40±2℃ 測試時間 Testing time:1000±2h									
耐高溫 High temperature		測試溫度 Temperature:+125±2℃ 測試時間 Testing time:1000±2h									
耐潮濕 Humidity		濕度 Humidity:90 to 95%RH 溫度Temperature:55±2℃ 測試時間 Testing time:1000±2h									
溫度循環 Thermal Shock		第1步-40℃ step1:30±3min 第2步室溫 step 2 Ordinary temperature:10min 第3步step 3:+125℃,30min±30min 第4步室溫 step4 Ordinary temperature:10±2min 1步到4步共循環5次 Total of 5 cycles									
跌落 Drop		從高度為1米的空中自由落到混凝土地板重10次。 Drop 10 times on a concrete floor from a high of 1m.									
振動 Vibration		振動頻率 Vibration Frequency:10-55Hz 振幅 Amplitude modulation:1.52mm 各方向各振2小時: XYZ direction for 2hrs each									
端電極強度 Termial strength		無機械損傷 No mechanical damage.	<table border="1"> <thead> <tr> <th>尺寸 Size</th> <th>推力 (N) Thrust force</th> <th>時間(s) Thrust force</th> </tr> </thead> <tbody> <tr> <td>0402/0603</td> <td>5</td> <td>5±1</td> </tr> <tr> <td>0805/1206</td> <td>10</td> <td>5±1</td> </tr> </tbody> </table>	尺寸 Size	推力 (N) Thrust force	時間(s) Thrust force	0402/0603	5	5±1	0805/1206	10
尺寸 Size	推力 (N) Thrust force	時間(s) Thrust force									
0402/0603	5	5±1									
0805/1206	10	5±1									
抗彎強度 Flexure strength	無機械損傷 No mechanical damage R ₂₅ 變化率小于 ±5%. Resistance value change:within ±5%	 <table border="1"> <thead> <tr> <th>尺寸 Size</th> <th>彎曲 (h) Curve</th> <th>施加速度 Speed</th> </tr> </thead> <tbody> <tr> <td>0402/0603</td> <td>0.7(mm)</td> <td rowspan="2">0.5mm/s</td> </tr> <tr> <td>0805/1206</td> <td>1.0(mm)</td> </tr> </tbody> </table>	尺寸 Size	彎曲 (h) Curve	施加速度 Speed	0402/0603	0.7(mm)	0.5mm/s	0805/1206	1.0(mm)	
尺寸 Size	彎曲 (h) Curve	施加速度 Speed									
0402/0603	0.7(mm)	0.5mm/s									
0805/1206	1.0(mm)										

• 包裝 Packaging

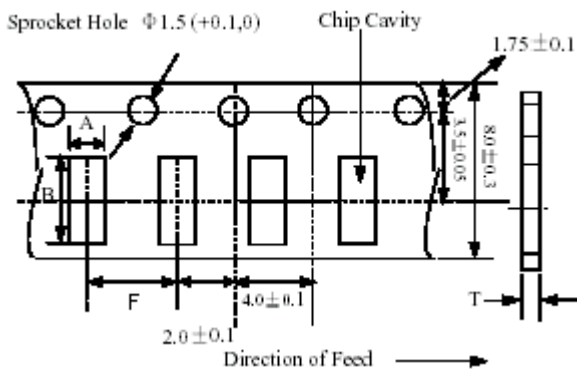
• 標準包裝數量 Standard Quantity

Type	0402	0603	0805	1206
Quantity(pcs)	10000	4000	4000	3000

• 包裝圖 Packaging Drawings



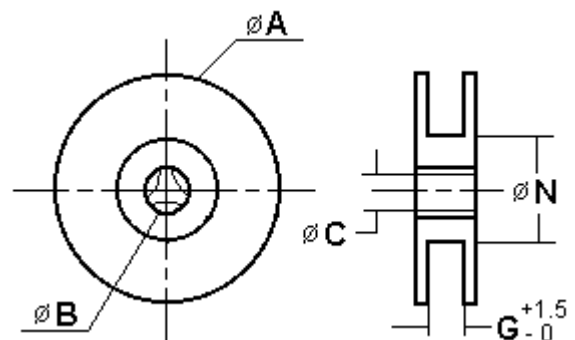
• 包裝尺寸 Packaging Dimmensions(unit:mm)



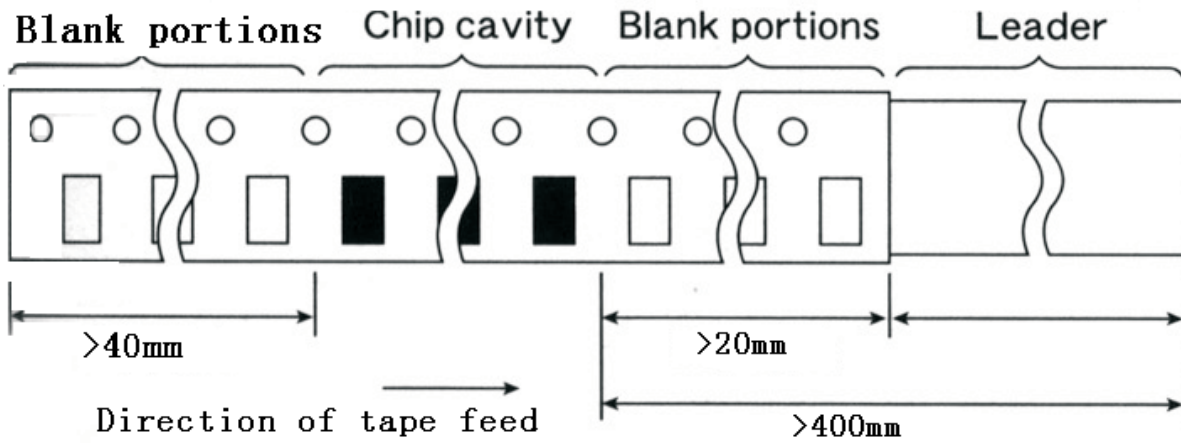
Part NO.	A	B	F	T
0402	0.65±0.1	1.15±0.1	2.0±0.05	0.8max
0603	1.0±0.2	1.8±0.2	4.0±0.2	1.1max
0805	1.5±0.2	2.3±0.2	4.0±0.2	1.1max
1206	1.9±0.2	3.5±0.2	4.0±0.2	1.1max

• 卷盤尺寸 ReelDimmensions(unit:mm)

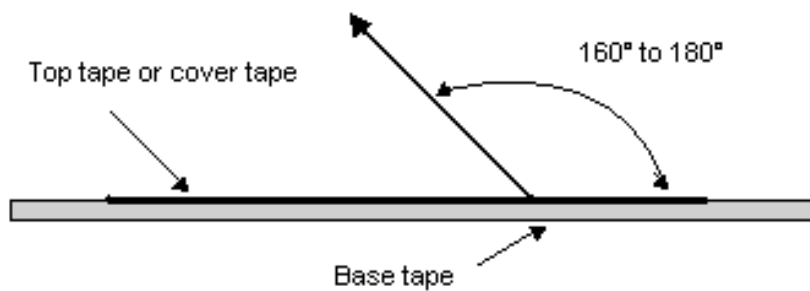
	A	B	C	N	G
CF-8	178±2.0	22±2.0	12.5±1.5	57±2.0	8
CF-12	330±2.0	22±2.0	12.5±1.5	98± 2.0	12



- 導帶和空白部分 Leader and blank portion



- 剥落力量 Peeling off force: 0.05 to 0.7N in the direction show below.



EKTB333J4050FANT-RT

温度 Temp. (°C)	R 最小值 R_Min (Kohm)	R 中心值 R_Cent (Kohm)	R 最大值 R_Max (Kohm)	阻值公差 Res TOL.	温度公差 Temp. TOL.(°C)
-40	1,124.493	1,227.263	1,336.076	8.87%	1.25
-39	1,050.430	1,145.641	1,246.360	8.79%	1.25
-38	981.752	1,070.008	1,163.282	8.72%	1.25
-37	918.033	999.883	1,086.307	8.64%	1.24
-36	858.883	934.830	1,014.949	8.57%	1.24
-35	803.944	874.449	948.759	8.50%	1.24
-34	752.890	818.375	887.332	8.43%	1.24
-33	705.420	766.272	830.292	8.35%	1.24
-32	661.260	717.834	777.300	8.28%	1.24
-31	620.159	672.780	728.041	8.21%	1.24
-30	581.884	630.851	682.229	8.14%	1.24
-29	546.224	591.812	639.602	8.08%	1.24
-28	512.983	555.445	599.917	8.01%	1.24
-27	481.983	521.550	562.954	7.94%	1.23
-26	453.057	489.943	528.508	7.87%	1.23
-25	426.055	460.457	496.392	7.80%	1.23
-24	400.837	432.935	466.435	7.74%	1.23
-23	377.273	407.235	438.478	7.67%	1.23
-22	355.245	383.225	412.375	7.61%	1.23
-21	334.643	360.783	387.992	7.54%	1.23
-20	315.367	339.797	365.205	7.48%	1.23
-19	297.323	320.165	343.899	7.41%	1.22
-18	280.425	301.790	323.971	7.35%	1.22
-17	264.593	284.584	305.322	7.29%	1.22
-16	249.753	268.467	287.862	7.22%	1.22
-15	235.838	253.363	271.509	7.16%	1.22
-14	222.784	239.201	256.186	7.10%	1.22
-13	210.533	225.918	241.822	7.04%	1.21
-12	199.031	213.454	228.351	6.98%	1.21
-11	188.227	201.754	215.712	6.92%	1.21
-10	178.076	190.766	203.850	6.86%	1.21
-9	168.533	180.443	192.711	6.80%	1.21
-8	159.559	170.741	182.249	6.74%	1.20
-7	151.117	161.618	172.417	6.68%	1.20
-6	143.172	153.038	163.174	6.62%	1.20
-5	135.692	144.963	154.481	6.57%	1.20
-4	128.638	137.353	146.292	6.51%	1.19
-3	121.993	130.188	138.587	6.45%	1.19

片式 NTC 热敏电阻规格书 Specifications for Chip NTC thermistor

-2	115.730	123.439	131.332	6.39%	1.19
-1	109.827	117.080	124.501	6.34%	1.19
0	104.259	111.087	118.065	6.28%	1.19
1	99.007	105.435	112.000	6.23%	1.18
2	94.049	100.104	106.282	6.17%	1.18
3	89.369	95.074	100.889	6.12%	1.18
4	84.949	90.325	95.801	6.06%	1.18
5	80.774	85.842	91.000	6.01%	1.17
6	76.827	81.606	86.466	5.95%	1.17
7	73.096	77.604	82.184	5.90%	1.17
8	69.568	73.822	78.139	5.85%	1.16
9	66.230	70.245	74.316	5.80%	1.16
10	63.071	66.861	70.702	5.74%	1.16
11	60.081	63.660	67.284	5.69%	1.16
12	57.249	60.630	64.050	5.64%	1.15
13	54.567	57.761	60.990	5.59%	1.15
14	52.025	55.044	58.093	5.54%	1.15
15	49.616	52.470	55.350	5.49%	1.14
16	47.332	50.031	52.751	5.44%	1.14
17	45.165	47.718	50.289	5.39%	1.14
18	43.110	45.525	47.955	5.34%	1.13
19	41.159	43.445	45.743	5.29%	1.13
20	39.307	41.471	43.644	5.24%	1.13
21	37.549	39.597	41.653	5.19%	1.12
22	35.879	37.819	39.764	5.14%	1.12
23	34.292	36.129	37.970	5.10%	1.12
24	32.784	34.525	36.267	5.05%	1.11
25	31.350	33.000	34.650	5.00%	1.11
26	29.960	31.551	33.143	5.05%	1.13
27	28.639	30.173	31.710	5.09%	1.15
28	27.383	28.863	30.346	5.14%	1.16
29	26.189	27.616	29.049	5.19%	1.18
30	25.053	26.430	27.813	5.23%	1.20
31	23.972	25.301	26.637	5.28%	1.22
32	22.944	24.226	25.516	5.33%	1.23
33	21.965	23.203	24.449	5.37%	1.25
34	21.033	22.227	23.431	5.42%	1.27
35	20.145	21.298	22.461	5.46%	1.29
36	19.300	20.413	21.537	5.51%	1.31
37	18.494	19.569	20.656	5.55%	1.33
38	17.726	18.765	19.815	5.59%	1.34
39	16.995	17.998	19.013	5.64%	1.36

片式 NTC 热敏电阻规格书 Specifications for Chip NTC thermistor

40	16.297	17.266	18.247	5.68%	1.38
41	15.631	16.567	17.516	5.73%	1.40
42	14.996	15.901	16.818	5.77%	1.42
43	14.390	15.264	16.152	5.81%	1.44
44	13.811	14.657	15.515	5.86%	1.46
45	13.259	14.076	14.906	5.90%	1.48
46	12.731	13.522	14.325	5.94%	1.50
47	12.228	12.992	13.769	5.98%	1.52
48	11.746	12.485	13.237	6.03%	1.54
49	11.286	12.001	12.729	6.07%	1.56
50	10.846	11.538	12.243	6.11%	1.58
51	10.426	11.095	11.777	6.15%	1.60
52	10.024	10.671	11.332	6.19%	1.61
53	9.639	10.265	10.905	6.23%	1.64
54	9.271	9.877	10.497	6.27%	1.66
55	8.919	9.506	10.106	6.32%	1.68
56	8.582	9.150	9.732	6.36%	1.70
57	8.259	8.809	9.373	6.40%	1.72
58	7.950	8.483	9.029	6.44%	1.74
59	7.654	8.170	8.699	6.48%	1.76
60	7.370	7.870	8.383	6.52%	1.78
61	7.099	7.583	8.081	6.56%	1.80
62	6.839	7.309	7.791	6.59%	1.82
63	6.590	7.045	7.512	6.63%	1.84
64	6.351	6.792	7.245	6.67%	1.86
65	6.122	6.549	6.989	6.71%	1.88
66	5.902	6.317	6.743	6.75%	1.90
67	5.692	6.093	6.507	6.79%	1.93
68	5.489	5.879	6.280	6.83%	1.95
69	5.295	5.673	6.062	6.87%	1.97
70	5.109	5.475	5.853	6.90%	1.99
71	4.929	5.285	5.652	6.94%	2.01
72	4.757	5.102	5.458	6.98%	2.03
73	4.592	4.926	5.272	7.02%	2.06
74	4.433	4.757	5.093	7.05%	2.08
75	4.280	4.595	4.921	7.09%	2.10
76	4.134	4.439	4.756	7.13%	2.12
77	3.993	4.290	4.597	7.16%	2.14
78	3.858	4.146	4.444	7.20%	2.17
79	3.728	4.007	4.297	7.24%	2.19
80	3.602	3.874	4.156	7.27%	2.21
81	3.482	3.746	4.020	7.31%	2.23

片式 NTC 热敏电阻规格书 Specifications for Chip NTC thermistor

82	3.367	3.623	3.890	7.35%	2.26
83	3.256	3.505	3.764	7.38%	2.28
84	3.149	3.391	3.643	7.42%	2.30
85	3.046	3.281	3.526	7.45%	2.33
86	2.947	3.175	3.413	7.49%	2.35
87	2.851	3.073	3.304	7.52%	2.37
88	2.759	2.975	3.200	7.56%	2.40
89	2.670	2.880	3.099	7.59%	2.42
90	2.585	2.789	3.001	7.63%	2.44
91	2.502	2.701	2.907	7.66%	2.47
92	2.423	2.616	2.817	7.70%	2.49
93	2.346	2.534	2.730	7.73%	2.51
94	2.272	2.455	2.645	7.76%	2.54
95	2.201	2.379	2.564	7.80%	2.56
96	2.133	2.306	2.486	7.83%	2.59
97	2.067	2.235	2.411	7.87%	2.61
98	2.003	2.167	2.338	7.90%	2.64
99	1.942	2.101	2.268	7.93%	2.66
100	1.882	2.038	2.200	7.97%	2.68
101	1.825	1.976	2.134	8.00%	2.71
102	1.770	1.917	2.071	8.03%	2.73
103	1.717	1.860	2.010	8.06%	2.76
104	1.665	1.805	1.951	8.10%	2.78
105	1.616	1.751	1.894	8.13%	2.81
106	1.567	1.700	1.838	8.16%	2.83
107	1.521	1.650	1.785	8.19%	2.86
108	1.476	1.601	1.733	8.23%	2.88
109	1.432	1.554	1.683	8.26%	2.91
110	1.390	1.509	1.634	8.29%	2.94
111	1.350	1.466	1.588	8.32%	2.96
112	1.311	1.424	1.543	8.35%	2.99
113	1.273	1.383	1.499	8.38%	3.01
114	1.236	1.344	1.457	8.42%	3.04
115	1.201	1.306	1.416	8.45%	3.06
116	1.167	1.269	1.377	8.48%	3.09
117	1.134	1.234	1.339	8.51%	3.12
118	1.102	1.199	1.302	8.54%	3.14
119	1.072	1.166	1.266	8.57%	3.17
120	1.042	1.134	1.232	8.60%	3.20
121	1.013	1.103	1.198	8.63%	3.22
122	0.985	1.073	1.165	8.66%	3.25
123	0.957	1.043	1.134	8.69%	3.28

片式 NTC 热敏电阻规格书 Specifications for Chip NTC thermistor

124	0.931	1.015	1.103	8.72%	3.30
125	0.905	0.987	1.074	8.75%	3.33